"EVERY PICTURE TELLS A STORY"

A	Study	of	Those	Who	Gather	and A	Accumulate	Legal	and	Illegal	Images.
	2000	-		, ,	Cuttier		- I C C G I I I G I G I C C				

Anthony McNally

A thesis submitted in partial fulfilment of the requirements of Nottingham Trent University for the degree of Doctor of Philosophy.

April 2016

TABLE OF CONTENTS

Statement of Aims and Objectives	6
Abstract	7
Acknowledgements	10
Dedication	11
CHAPTER 1	12
A Narrative Review of the Collecting Literature	12
Collecting an Historical Perspective	12
What Constitutes a Collection?	18
Normative Collecting	23
Fans, Fanatics and Connoisseurs	28
Normative Collecting Process	32
Motivations for Collecting	36
Marketing and collecting.	36
Psychology and collecting.	37
Social and financial factors and collecting.	40
Hoarding Disorder: Pathological Collecting	42
Hoarding versus Collecting.	45
Conclusion	49
CHAPTER 2	53
Nature, Function and Process of Gathering and Accumulating Indecent Images of Chile (IIOC)	
Background	
Introduction to IIOC Offending	
UK Legal Statutes for IIOC Offending	
Nature of Indecent Images of Children (IIOC) or Images of Child Erotica (IOCE)	
Nature of Accumulations/Collections of IIOC	
Empirical Studies IIOC Offending and Collecting	82
Conclusion.	
CHAPTER 3	109
Methodology	
Introduction	
Research Aims	109

Mixed Methods Research Design	109
Phase I: Qualitative Studies (Study 1 and 2)	115
Rationale for Interpretive Phenomenological Analysis (IPA)	115
Sampling	120
Interview Schedule Development	125
Data Collection	127
Data Coding and Analysis.	128
Phase II: Quantitative (Study 3)	130
Sampling	130
Instruments.	131
Data collection.	136
Data Analysis	137
Limitations of measures and survey.	137
CHAPTER 4: Study One: The Image (Postcard) Collectors Experiences	139
"When we get really good cards we put them on the mantelpiece for a while so	we can view
them"	139
Introduction	139
Method	147
Participants.	147
Data collection.	147
Interviews.	147
Analysis/methodology.	148
Results	148
Discussion.	161
Limitations and future research.	165
CHAPTER 5: Study Two	167
"It's my secret, my little secret. That little secret gives it a buzz"	167
HOC Offenders Experiences of Gathering and Accumulating Indecent Images	of Children.
	167
Introduction	167
Method	172
Participants.	172
Interviews.	172
Analysis/ methodology.	173

Data collection	174
Results	175
Discussion	187
Limitations and Future Research	191
CHAPTER 6: Study Three	192
Exploratory Study Examining IIOC Offenders Engagement with Collecting Behaviours .	192
Introduction	192
Methods	199
Participants.	199
Measures.	200
Procedure.	202
Statistical analysis	202
Results	203
Comparison Collecting and Non-Collecting Group	204
Nature of Collections	205
Process of Collecting	206
Function of Collecting Indecent Images	210
Discussion	214
CHAPTER 7: Conclusion	223
New Collecting Frame	223
Nature of Core Collecting Units (Collector, Collectibles and the Collection)	228
Function of Collecting and Gathering Behaviour	234
Process of Collecting	239
Final Remarks	245
Limitations and future studies	245
References	247
Appendices	267
Appendix A: Consent Form for Study 1: Image Collectors	267
Appendix B: Consent Form for Study 2: IIOC Offenders	268
Appendix C: Study 1: Semi Structured Interview Schedule Image Collectors	270
Appendix D: Study 2: Semi Structured Interview Schedule of Indicative Questions for	
IIOC Offenders	
Appendix E: Study 3: Collecting-Offending Survey & Psychometric Measures	274

Figure 1: McIntosh and Schmeichel's (2004) Model of Collecting Processes	33
Figure 2: Mixed Methods Design Error! Bookmark not	defined.
Figure 3: Sample Classification of Collecting and Non-Collecting Groups	203
Figure 4: A Model of Normative Collecting Behaviour (adapted from McIntosh & Schmeichel 2004)	241
Figure 5: IIOC Collecting-Offending Cycle	244
Table 1: Comparison of Collectors and Hoarders (adapted from Nordsletten and Mataix-Cols 2012)	45
Table 2: Frequency of use of IIOC Legal statutes and IIOC offences	60
Table 3: Classification System for Seriousness of Indecent Images of Children	67
Table 4: Aggravating factors Sentencing Guidelines Council (2007) and Sexual Offences Definitive Guidelines	delines
(SODG, 2014)	75
Table 5: Demographics Image (Postcard) Collectors	123
Table 6: Demographics IIOC Accumulators	124
Table 7: Theme and Subthemes from Interviews with Image (Postcard) Collectors	149
Table 8: IIOC Accumulators, IPA Themes and Subthemes	175
Table 9: Demographics for Collecting and Non-Collecting IIOC Offenders	204
Table 10: Nature of the IIOC and Accumulations	205
Table 11: Pre-Offence - The Hunt for Indecent Image	207
Table 12: Offence Behaviour- Acquisition IIOC	208
Table 13: Sources Used to Acquire Indecent Images of Children	208
Table 14: Post Offence Behaviours (Post-Acquisition)	210
Table 15: Collecting and Mental disorder: Hoarding, Asperger's Syndrome, Anxiety & Depression	211
Table 16: Images-Specific Motivators to Acquire Indecent Images of Children	212
Table 17: Cognitive Mechanisms Associated with Hoarding and Collecting Behaviour	213
Table 18: Social Networking for All Sample and Collecting and Non-Collecting Subgroups	213
Table 19: Proposed Collecting Frame	224

Statement of Aims and Objectives

This is to certify that this thesis is the result of an original investigation. This thesis sets out to explore the collecting-offending hypothesis associated with child sex offenders who have indecent images of children. The nature, function and processes involved in gathering and accumulating images will be explored, along with the experiences of those who gather and accumulate legal and illegal images. The qualitative phase of the mixed method design will use IPA to examine the personal experiences of those who collect postcard images (study one) and illegal images (study two) and the meaning bestowed upon the images accumulated. Using a similar methodology in both qualitative studies will permit the experiences of those who collect images and those who gather and accumulate IIOC to be contrasted. Study three will use a survey method to prospectively apply the ideas drawn from collecting theory to a sample of IIOC offenders, with a view to examining whether a collecting group is identifiable based on McIntosh and Schmeichel's (2004) model of collecting process. Identifying a Collecting and Non-Collecting group means the nature, function and process elements of collecting could be compared to identify potential distinguishing collecting-offending behaviours associated with IIOC crime. The pathological collecting-offending hypothesis will also be examined in study three using validated psychological screening measures for hoarding disorder and Asperger's Syndrome. The findings from all the studies will be merged in the final conclusion, and this body of work may have implications across a range of areas. Study one is a seminal study of image collectors and will contribute to our understanding of collecting behaviour and boundary refinement work trying to differentiate normative collecting from hoarding disorder. Findings from the forensic studies provide new ideas about potential collecting characteristics of some IIOC offenders and this has implications for assessment and treatment. The material has not been used in a submission for any other qualification. Full acknowledgement has been given to all sources used.

Abstract

Researchers speculated that some child sex offenders who gather and accumulate indecent images of children (IIOC) appear to be engaged in some form of collecting behaviour. Original sentencing guidelines (2004) for IIOC offending recommended higher sentences based on the nature of the images accumulated, the size of the IIOC accumulation and whether it is organised. Updated sentencing guidelines, such as the A, B, C classifications (Sexual Offences Definitive Guidelines in 2014) still see some collecting processes pointing to deviancy in IIOC offenders. This collecting-offending hypothesis is untested and was a prompt for undertaking this thesis.

Collecting terminology is not well-defined, there is no unifying psychological theory of collecting and no empirical studies investigating image collecting. Chapter one sought to review the literature in an attempt to operationalise the concept of collecting. From this first formal review of collecting literature coherence in collecting language emerged and a new collecting frame was posited. This collecting frame is thought to incorporate three core collecting units termed the collectible, the collection and the collector. Three core elements are proposed, that is nature, function and process, and these along with the collecting units form part of a relational matrix which was termed the collecting frame. In chapter one the boundary between pathological (hoarding disorder) and normative collecting is also reviewed and it was concluded that whilst further boundary refinement work is needed they are likely to be distinct phenomena.

Chapter two contributes original work, as IIOC offending research is reviewed through a collecting lens. Applying the new collecting frame from Chapter one to IIOC offending was not straightforward, and the terms used for core collecting units needed to be adapted to account for the abusive and illegal nature of some images and to avoid reinforcing offence supportive distorted thinking which might encourage further IIOC offending (Sheldon & Howitt 2007). The term collector was changed to IIOC offender, the collectible became the IIOC or images of child erotica, and collection was referred to as the IIOC accumulation. The collecting process was discussed in regard to actual behaviours, that is, gathering, acquiring, keeping and maintaining accumulations. Applying the collecting frame helped map the topography of the extant IIOC literature which pertains to the collecting-offending hypothesis under study. It was identified that whilst the use of objective measures of IIOC classification and collection configuration are popular and useful, this approach fails to take

account of the dominant view from collecting theory which emphasises that what is defined as a collectible and collection can also be subjectively defined. The implications of examining the subjective and objective nature of collecting amongst IIOC offenders is examined, and the lack of studies holistically and prospectively studying the function and processes in IIOC offenders accumulating is pointed out based on the review of expert opinion and empirical papers. A case is also made for systematic testing of McIntosh and Schmeichel's (2004) psychological model of collecting process, using a parsimonious model which integrates collecting and offending processes.

This thesis also contributes three original studies, using a mixed method design to explore the collecting-offending hypothesis. The first IPA study in this thesis addressed a gap in the collecting literature by exploring the experiences of image collectors. Next a similarly designed IPA study was conducted to examine the subjective experiences of a sample of convicted sex offenders who self-reported gathering and accumulating indecent images of children. Finally in study three a newly developed survey drawn from collecting theory and IIOC research was implemented to examine whether a collecting group could be identified, along with the nature, function and process of collecting-offending in a convicted sample of IIOC offenders. This study also aims to examine the pathological collecting-offending hypothesis suggested by Sheldon and Howitt (2007) and Murrie, Warren, Kristiansson and Dietz (2002), by measuring hoarding and Asperger related symptomology. In this thesis qualitative and quantitative data were given equal priority and the findings from all the studies were merged in the final conclusion to give meaning and detail to our understanding of collecting behaviour and the collecting-offending hypothesis associated with IIOC offending.

Key findings: Using an adapted version of McIntosh and Schmeichel's (2004) model of collecting, a collecting group was identified in the IIOC sample in study three. For both image collectors and IIOC offenders, collecting their objects of interest was an evolving process, and similar collecting processes were found for image collectors and IIOC offenders with a collecting interest, that is the hunt, acquisition, post-acquisition behaviours and refinement. Both groups gained from input with like-minded others, but involvement in collecting communities was especially popular amongst image (postcard) collectors. The function of collecting served cognitive, emotional, behavioural and social functions, and seems to be perpetuated by both positive and negative reinforcement. A possible pathological

collecting function was identified for a small minority of IIOC offenders in study three, and any link between IIOC offending and collected related disorders would need further investigation before conclusions could be drawn. Cognitive-emotional processes used to relate to the image and to continue collecting differed significantly between image collectors and IIOC offenders. IIOC offenders seem to project shame and anxiety onto the image, and use cognitive distortions to support abuse of children. The image collectors appear to imbue images with affection and many built long-term attachments to the images they collected. With more clarity about the processes or steps taken when collecting, McIntosh and Schmeichel's (2004) model of collecting was adapted and updated to develop a new testable model of normative collecting and a modified version of this new collecting model was developed for IIOC offenders. Limitations and implications for each of the studies are discussed, along with ideas for future research.

Acknowledgements

I would like to thank Brian from the postcard fairs and all those staff members that supported me at HMP Whatton. I would also like to thank Belinda, Karen, Mick and Laura for their unwavering support in helping me complete this thesis. I would especially like to thank my Director of Studies Professor Belinda Winder for her patience, generosity and good humour no matter how dark the times.

Dedication

I dedicate this thesis to my wife Laura, for all the love, strength and support through the difficult times, and the reminders that avoidance is not benign. So lucky to have met such a wonderful person as you. I also dedicate this thesis to my parents Kate and Jerry, without them and their belief in me I would be nothing. Thank you for being the best parents a person could hope for. During the difficult times family have stood by me and brought the happiness that helped me finish this thesis and for that I also dedicate this work to my sister Geraldine and her husband Geoffrey. Thank you all, I needed you to get through this and you were all there for me. I will never forget.

CHAPTER 1

A Narrative Review of the Collecting Literature

Collecting an Historical Perspective

Human collecting behaviour has a long history and although it is difficult to be precise about the origins of collecting behaviour in humans, there is suggestion that it can be traced back for thousands of years (Belk 1995, Elsner & Cardinal, 1997). Within Biblical history, Elsner and Cardinal (1997) speak of Noah as the first collector and suggest he epitomises "the extreme case of the collector: he is one who places his vocation in the services of a higher cause, and who suffers the pathology of completeness at all costs" (p. 1). Elsner and Cardinal's (1997) reflections on the Biblical accounts of Noah suggest that his collecting behaviour was not directly driven by personal gain, but about evolutionary survival and curatorship whereby his attempt to collect was about saving essential living objects for the future and, in the process, maintain an understanding of the world that had preceded. Elsner and Cardinal (1997) extrapolate this Biblical account of collecting to modern day collecting, arguing that "Noah as a collector resonates all the themes of collecting" and there has been little change in the personal and social function of human collecting behaviour over time (p. 1). Human collecting behaviour is driven by "desire, nostalgia, saving and loss, the urge to erect a permanent and complete system against the destructiveness of time" (Elsner & Cardinal, 1997, p. 1). Elsner and Cardinal (1997) emphasise the social importance of collecting, arguing it is a basic human condition were "social order itself is inherently collective: it thrives on classification, on rule, on labels, sets and systems" (p. 2), and that collecting forms the narrative of how mankind strives to "accommodate, to appropriate and to extend the taxonomies and systems of knowledge they have inherited" (p. 2).

Belk, Wallendorf, Sherry and Holbrook (1991) in their book "Collecting in a Consumer Culture" suggest that the evidence of human collecting behaviour may be traced back to the discovery of what they term "a collection of interesting pebbles in an 80,000 year old cave from the Cro-Magnon period in France" (p. 178). Belk et al.'s (1991) analysis of collecting traces our modern day conceptualisations of human collecting to rulers and nobility of civilizations that built cultures which held art in high esteem, such as Babylonia, Ancient Mesopotamia and Ancient Egypt. Evidence of collecting objects is clearly represented in the

abundance of artefacts found in ancient tombs, with these artefacts being of such richness that the collecting of them spoke of the collector as having divine power or godlike qualities.

Much of what we currently understand about the origins of human collecting behaviour stems from Ancient Roman and Greek history. Belk (1995) proffers that it was due to Alexander the Great's unification of Greece in the 4th Century and the conquering of other nations that the widespread collecting of objects began. Historical accounts suggest that war and territorial expansion helped develop collecting behaviours, with the conquering and plundering of objects and artefacts from other nations being used as symbols of political and military power. Belk (1995) goes on to speculate that it was during the Ancient Greek and Roman Empires that collecting began to be taken seriously amongst the 'ruling' classes, and he attributes this to the influx of foreign objects and artefacts from military campaigns. Muensterberger (1994) concurs with Belk's analysis that war played a part in the popularity of human collecting. In his book "Collecting an Unruly Passion", Muensterberger describes how, during the 3rd century (BC) the fall of Greek Sicily and later the fall of Syracuse to the Romans, ended with an unprecedented plundering of Greek works of art and artefacts. This looting of Grecian art and artefacts continued throughout the Roman occupation of Greece.

By the middle of the 2nd century B.C. the Roman Senate limited the number of objects to be displayed publically which eventually led to rich private citizens procuring Greek objects and amassing private collections with some evolving into privately owned museums. This development of the private collector, with a desire to procure and own these rare and novel artefacts led to the growth of the art and antiquities dealer. These accounts of gathering, collecting and owning objects and artefacts suggest multiple personal and social functions, with collections becoming a symbol of elitism, power, dominance and wealth. Movement to private ownership of looted objects appears to have created a 'collectibles market' which includes finders, distributors and procurers, with monetary gain becoming part of the collecting phenomena (Belk, 1995; Elsner & Cardinal, 1997; Muensterberger, 1994).

A greater demand for objects by private collectors created not only more value in the original object but instigated the production of fakes. Muensterberger (1994) writes, "not surprisingly along with the increase in demand for and the value of such objects came a vast trade in copies ... and when copies could not keep up with demand, outright forgeries came onto the market ... When these turned to a flood, expertise soon evolved into a regular profession" (p.

53). This period in the history of collecting saw the establishment of the importance of verification and generated a need for the "expert collector" to authenticate genuine works. In turn this subjugated the idea of the collector as a mere accumulator and introduced the notion of a hierarchy of collectibles and collectors, with expert knowledge and/or ownership of authentic 'high art' or prestigious objects providing individuals and groups with an opportunity for connoisseurship and social enhancement through ownership and knowledge of collectibles.

Accounts of collecting during the medieval period, from the 5th -15th century, again see the proclamation of the importance and power of the collector. Outside of Royal treasure collections, "collecting was primarily a confine of the church who sought out saintly relics and religious artefacts. With these types of collections the church instilled in the population that the church was powerful or even magical. Not only was the possession of these relics a source of prestige and power for local churches ... they provided hope in miracles for the masses" (Belk 1995, p. 27). In many ways the church, much like the Ancient Romans and Greek, was an offensive collector with collected objects, relics and artefacts being used as symbols of power, dominance and social control.

During the Middle Ages, there appears to have been a reduction in private collectors within the middle and upper classes, with collections being held less for aesthetic purposes or for their antiquity and more for financial security. Rigby and Rigby (1944) relate that the lack of private collectors during the period "was due to wealth being concentrated amongst hereditary rulers and prelates of the church" and that "even kings were more concerned with the material value of their treasures rather than the artistic or historical merits" of the object(s) (p. 138). Basically it became more important to think about objects in monetary terms, i.e. how much it could be sold for rather than being used for a projection of self or prestige with owning and keeping an object(s).

The Renaissance period became an important era in the history of collecting, with important collecting families in Italy and private collectors in France coming to prominence and it seems inspiring the growth of the private collector throughout Western Europe. Belk (1995), Pearce (2010) and Muensterberger (1994) emphasise the importance of the famous Medici family in the Italian state of Florence and also the Duke Jean De Berry in France during the 14th and 15th centuries. Muensterberger's (1994) historic case study of Jean de Berry, states

he was one of the first and most prominent "eclectic collectors whose enthusiasm and infatuation could not be confined to a single area" (p. 170). Muensterberger saw De Berry as the inspiration behind the cabinets of curiosities that would emerge and become prominent some 200 years later. Belk (1995) describes De Berry's collection as including not only paintings and sculptures but also precious stones, objects made from precious metals, illuminated manuscripts, cameos, games, medals, perfumes, vases, animals, wall hangings, embroideries, religious artefacts and foot warmers. Belk (1995) suggests that De Berry's collection was significant because his "eclectic collecting style marked the transition from objects as medieval royal treasury to objects collected solely for their own sake with no thought to their acting as a store of value"(p. 28). De Berry's influence on the nobility in France and Europe was thought by Belk (1995) to have caused a collecting contagion during the late 14th century.

Early collectors, such as De Berry, were the inspiration for the influential Italian collecting family, the Medici of the late 1300s to the 1700s (Pearce 2010, p. 16). The Medici continued the concept of collection as an eclectic tradition, and importantly extended the idea of the collectible to included natural world objects. By the 1700s the strange, rare and artistic objects from the human past which were once so important were being replaced or aligned with an interest in the natural world "especially the comparisons between standard specimens drawn from across the stretch of the natural world" (Pearce 2010, p. 22). Within the confines of collecting, the scientific world was being considered just as important as the art world. Belk, Wallendorf, Sherry, Holbrook and Roberts (1988) suggests that the emerging split within collecting culminated during the 18th and 19th centuries and resulted in a greater focus on the specialization of collections. Now the split between art and science was more clearly delineated and allowed for more manageable collecting tasks and the narrowing of competition. This specialization and split in the collecting arena would in turn enhance the collector's chances of being unique in their collecting field of choice, and by default cultural values of being a collector would be incumbent upon them.

Originally during the Renaissance period the impetus on collecting had been chaotic with the importance being only to amass eclectic novelty objects from newly discovered worlds and civilizations and to display them in cabinets of curiosity. Belk (1995) suggests that increasing specialism, classification and the rejection of eclectic novelty within the cabinets of curiosity was also due to the "exhilarating sense of discovery and encyclopaedic knowledge" (p. 32),

which began to grow along with the discovery of the new worlds and their objects both natural and manmade. This increase in specialization and categorisation within cabinets of curiosities led to the emergence of more directed collections such as ethnographic collections, art collections, geological collections and natural history collections, to name a few (Belk, 1995). This specialization made the phenomena of the collectible and collecting more accessible, and perhaps promoted the acquisition of knowledge about objects previously ignored. It also provided the foundations for the specialist niche collector of manmade and/or naturally occurring objects.

Important to the growth of the private collector and the growth in trade of collectibles was the dispersing of important collections that had been compiled by collectors such as the Medici The dispersing of collections came about usually when a family became less prominent in society or due to the death of a prominent collector. Belk (1995) cites the fall of the Medici family and the scattering of their collections during the 1700s as an important opportunity for the emergence and growth of the art dealer and the auction house. Dispersing collections through dealers and auction houses gave new collectors the opportunity to speculate and buy objects for investment purposes (p. 25). Art objects and artefacts were now not only being considered for their historic and aesthetic attributes by society's elite, but were now commodities for the open market where new collectors such as doctors, lawyers and other professionals sought to become part of a collecting world that was once only the realm of nobility and the church. Pearce (2010) also acknowledges the dispersing of collections as important to the development of the modern day collector, and also sees the amount and spread of wealth in Western Europe as important. Availability of collectibles and greater distribution of wealth, seems to have allowed the middle classes to indulge themselves in garnering collections or accumulating objects. Thinking about how collecting has moved on from the 1700s, Belk et al. (1991) writes "it appears that a several hundred year trend toward the democratization of collecting has accelerated in the 20th century, with more people collecting. This has been possible partly due the rising of incomes ... the broadened conceptualization of things that are collectible, the accelerated production of identical objects in series or sets and the reduced age at which things are considered worth preserving" (p. 215). Martin (1999) seems to agree with Belk et al.'s conclusion about the broadening of what was to be considered collectible, when he states "it is with the improvements in mass production technology from the mid-Victorian period onwards, that the rise of the souvenir industry and hence popular collectables is probably located (p. 27). By the 21st century the

concept of the collectible, collection and collector has become commonplace and normalised with everyday society. Today it is clear that collectible could be anything with anecdotal accounts in newspapers about carrier bag collectors (The Daily Mail 2007), case studies of sex collectors (Nicholson, 2006) and surveys revealing people collect clothing rags, books, notes, bills (Nordsletten, De La Cruz, Billotti & Mataix-Cols, 2013; Pertusa, Fullana, et al., 2008). Television series such as "The Antiques Road Show", "Cash in the Attic", and "American Pickers" attest to the diversity of the collectible, and the popularity and normalisation of collecting across all levels of society.

This brief account of collecting history seems to suggest that collecting behaviour and collecting process may be part of the human condition, and possibly reflect an evolutionary function linked to our hunting and gathering past (Elsner & Cardinal, 1997; Belk, 1995). As civilisation has developed, it seems so too has the concept of the collectible, the collection and the collector along with the function and processes of collecting. During the Roman and Greek periods collections were made up of objects which were essentially souvenirs of war, with the collection and the collectibles tangible symbols of dominance, power and position in the social hierarchy (Belk et al., 1991; Muensterberger, 1994). Over time as democracy and wealth became more distributed, it appears that the access to collections, collectibles and engagement in collecting behaviour expanded. Collecting for pleasure became popular and the concept of the private collection evolved, with nobility, bourgeoisie or religious groupings becoming private collectors of ancient relics or unusual objects from the natural world (Belk, 1995; Pearce, 2010). The growth of the private collector resulted in eclectic collections, and imbued additional ideas upon the collecting phenomenon such as curatorship (collection management), collectibles as ways of memorialising the past, and collectibles as During the 17th century the concept of the collectible, collection and cultural capital. collector transitioned further into our modern day understanding. Eclecticism appeared to expand the idea of what could be considered a collectible, as historically it was a prestigious war trophy but by the 17th century it could be a rare exotic animal, an ancient relic and also be a manmade object from the past, e.g. a game, medals, perfumes, foot warmers and so on (Belk et al., 1988; Pearce, 2010). Dispersement of eclectic collections in the 1700s perhaps provide the impetus for a new form of collection, the specialist collection, with the collector focusing on only one aspect, i.e. foot-warmers, rare birds from North Africa and so on (Belk, 1995; Pearce, 2010; Formanek, 1991). Widespread adoption across Europe of collecting resulted in greater commercialisation, with roles forming within the previously noted collecting hierarchy of finders, distributers, procurers, connoisseurs and experts. Widespread commercialisation of collecting is evident today, so much so that the concept of collectible has expanded to include everyday objects and deliberately produced collectibles (Martin, 1999; Nicholson, 2006; Pertusa et al., 2008; Nordsletten et al., 2013). This growth in the collectible means that nowadays virtually anything could be considered a collectible, with value varying greatly for virtually nothing to being worth millions. The nature of collections could also vary in size, monetary worth and be specialist or eclectic. According to this analysis of historic collecting behaviours, it seems the collectible, the collection and the collecting process serves several personal and social functions to human beings. Formanek (1991) writes that the function of collecting across time has been about outward displays of power, money, control and social status, however some accounts of collectors indicate that collecting can have a very personal inward looking function in terms of promoting individual mental wellbeing, happiness and reduced anxiety.

What Constitutes a Collection?

The term collection is common place in the lexical repertoire of most people, and it is likely that laypersons could offer a subjective definition of a collection. Within western tradition there has been scholarly theorising and debate on what exactly constitutes or what defines the term collection, and the problems associated with defining it (Belk, 1995; Johnson, 2014; Pearce, 1994). Through her extensive research within the field of museum studies, Pearce (1994) suggests that trying to clarify one plausible definition of what constitutes a collection or what makes it different from other object accumulation is problematic. In Pearce's opinion this is "because definitions may be self-serving and circular" (p. 157). This problem is apparent because personal self-serving criterion would promote within individual collectors the belief that their collection is a collection, because it is they who set the criterion that allows them to see their accumulation of objects as a collection. This problem of what constitutes a collection may also extend outside the individuals' interpretation, in so much as, those looking in on the individual's collections may not reflect upon the accumulated objects with the same personal criteria as the possessor. For instance, the self-appointed collector may only have a small number of objects which another person may view as too small to be considered a collection. The reverse may be true, whereupon a non-collector may have a large accumulation of objects but sets no criterion from which to see it as a collection, however someone looking at the same accumulation of objects may consider it a collection

because of their own personal criteria of what constitutes a collection. It would seem that the self-serving and subjective interpretation of what defines collections, as espoused by Pearce (1994), creates a problem for defining it as it depends on owners and onlookers' personal perspectives.

Existing generic definitions of the term collection, albeit subjectively derived, see it in terms of the relationships of the collected objects and range from the simplistic to the complex. Simple anecdotal accounts of what constitutes a collection are abundant on the Internet. The wordnetweb (n.d.) suggest that a collection constitutes "several things grouped together or considered as a whole". This broad definition is mirrored in other websites and dictionary definitions, such as the online Free Dictionary (n.d.) which states that a collection is "a number of things collected or assembled together" or the online Oxford Dictionary (n.d.) which terms a collection as "a group of accumulated items of a particular kind". These offer a basic generic account of what constitutes the term collection, but they do not take into account any subtleties that individuals and individual collectors may subjectively ascribe to the term collection.

Reid (2010) offers a more complex account of how the relationship of objects is pivotal to defining the term collection. As an art dealer and critic Reid (2010) subjectively suggests that the most important element is the idea of grouping of the objects, as the grouping allows the viewer to understand context and developments within a collection and this allows for better understanding of what a collection is saying to the viewer. He suggests that not only does the grouping of a collection allow us to understand it in context it also helps us understand the collectors themselves. Reid states "a collection must be a story. It is as simple as that" (p. 1). Reid's operationalization of the term suggests that a collection constitutes the act of organization as this provides contextual understanding of the accumulation of objects.

Objective and complex conceptualizations of what constitutes a collection have been offered through consumer theory, which suggest that the original function of accumulations of objects must be negated before they can be transformed into a collection. Belk (1995) defined the term collection as meaning "possessing things removed from ordinary use and perceived as part of a set of non-identical objects or experiences" (p. 479). Belk's interpretation would seem to accord with other research, such as McIntosh and Schmeichel (2004) who construed that the function of the objects should be "of secondary (or no) concern

and the person does not plan to immediately dispose of the objects. Thus, a person who accumulates a variety of toasters but does not use them to make toast is a collector of toasters" (p. 86).

Earlier attempts at an objective and complex explanation of a collection was offered by Durost (1932) in terms of child development and collecting and would also seem to agree with Belk (1995) and McIntosh and Schmeichel's (2004) later assertions about the importance of the rejection of the original functionality of the object. Durost (1932) suggests that if the value of the objects to the individual is their intrinsic function or valued for its aesthetics it is not a collection. He goes on to suggest that the accumulation of objects can be termed a collection if the objects within it are valued by the individual in terms of object relationship e.g. if they are part of a set or series. Durost's account seems to reject the idea that objects, e.g. paintings or decorative items can be a collection if it is based on their intrinsic beauty, and therefore objects cannot become a collection of the beautiful. Like Belk (1995) and McIntosh and Schmeichel (2004), Durost seems to be of the opinion that a collection cannot exist if the person values more the purpose of the object, it can only be considered a collection if it relates as a series to other objects. Their argument seems to reject the proposition that a collection can be functional and valued highly as a collectible due to the functionality it provides to the possessor, not just its contextual relationship to other objects. For example, a tie collector may collect a series of ties that relate to each other through producer, design or period of manufacture. However the act of wearing the tie may show that the collector values the importance of its function also, and therefore a person may rate functionality as an important part of a collection. Carey (2008) also argues for the importance of functionality when he states, "a collectible may be valued both as a good for its ordinary use.... its aesthetic value to the consumer, and for its social value" (p. 338). That the objects primary function can be an important factor of the collection is evidenced in Pearce's (1993) Contemporary Collecting in Britain Survey (CCBS), who found that 39% of respondents used their collections (p. 56). For some, such as Durost (1932), Belk (1995) and McIntosh and Schmeichel (2004) a collection is seen as a separation of the nature and function of the objects. Others, such as Carey (2008) and Pearce (1994) argue that potentially for individual collectors it may be important to maintain a solid connection between the nature and the functionality of the object e.g. car collectors may like to drive their cars, tie collectors who like to wear the ties, in these cases the two elements of nature and function could be deemed inseparable.

A primary element in considering what constitutes a collection is the concept of object relationships to other objects and objects related to object series. It is evident that many manufacturers understand the importance of series/sets and the relationship of objects in collections (Belk & Wallendorf, 1994; Belk, 1995; Danziger, 2004). There is a glut of mass manufactured related objects being produced in seemingly infinite sets or finite sets (limited editions), produced and marketed in such a way that perhaps the novice collector gets drawn into and may feel compelled to finish collecting the set (Danziger, 2004). A prime example of potentially infinite sets is the mass produced novelty miniature clocks in a variety of moulded shapes, such as bicycles and televisions, which are often advertised in magazines. These objects themselves may not be considered intrinsically collectible or valuable, and appear to be only thought of as collectibles by some individuals due to manufacturers marketing strategies (Belk, 1995; Danziger, 2004; Pearce, 1998), and possible normalisation of collecting promoted by the mainstream UK television shows such as "Bargain Hunt", and "The Antiques Road Show". Although these types of manufactured collectibles offer functionality, e.g. the miniature clocks are timepieces, they might never be used functionally by the collector, just placed in a display cabinet as a set of related objects. Pearce (1998) points out that these mass produced objects are like souvenirs, and offer the collector little in return for their investment. Belk (1995) describes these mass produce objects as instant collectibles and that the problems for collector is that they lose a personal function as they have been pre-selected as collectibles by the manufacturer (p. 63). The real function of these manufactured sets of collectibles could be interpreted as profit for the manufacturers and potentially may never be of any real collectible value to the owner. That is, they do not really need them, there is no real emotional or financial purpose for having them. In cases like this the collecting behaviour may not be internally driven, rather externally driven by goals set by others such as manufacturers. As Belk (1985) points out, a marketing goal is to create and increase demand for a product and highlights that marketers find out why and what people want and create it for them (p. 132). From a consumerism perspective, a collection can therefore be a set of objects which are related based upon marketers understanding about what drives consumer behaviour, in particular the emotionally rewarding function of collecting and having a collection.

There is considerable confusion and disagreement about what constitutes a collection. In my view a collection is probably subjective, as people can make their own choice about defining

a collection by adding their own individual values to it or putting no personal value on it whatsoever. A collection is therefore an internally driven concept, however the internal drives of a potential collector may be manipulated even generated by external forces, such as manufacturers or marketing strategies. The objective components of a collection are unclear, however current theories and definitions suggest size is not an essential marker rather greater emphasis is placed on the relationship between objects, with some defining the relationship in terms of nature and other emphasizing the relationship in terms of functionality to the owner. An alternative definition of a collection sees the relationship as being based on a duality involving nature and function. Where nature reflects the intrinsic nature of object and collection, and function refers to the purpose of the object/collection and how it is used by its owner. Taking a simple non-functional view of a collection and the grouped collectibles may obscure the personal-making that may goes into it, and in turn a window to the inner world of the owner may be overlooked.

From the researcher's perspective, what may constitute a collection comprises of two components. These components relate to the nature of the collection as well as how the collection functions for the individual. The nature of the collection refers to the grouped or the sub-groups of objects within it and these maybe quantified in terms of content, size, sets, secondary material, subsets and the subjective relationship between the collectibles in the collection. Within collections there may be evidence of objective and academic understanding of object relationships and functionality between objects, demonstrated in their progressive manufacture or their artistic development and objectively and contextually historicised to evidence similarities and differences over time. However this may not be apparent within a collections that are solely based on the subjective life experiences of individual collectors where the relationship or nature of the grouping and how they function for the individual are not apparent because the collector has set up the rules of the relationship that function only in a particular way to themselves. Overall there may be individual collectors whose collections can be clearly explained and contextualised (which museums strive to do) and collections whose nature and function may hard to define objectively therefore it is important to explore with those individuals what (if anything) constitutes there accumulation of objects that seem important to them.

Normative Collecting

Differentiating "normative collecting" from other mental disorders and medical conditions with collecting elements, such as, Asperger's Syndrome and Prader-Willi, has been the focus of "boundary refinement work ... meanwhile, the diagnostic line separating pathology (hoarding) from normative has received much less attention" (Nordsletten et al., 2013). The prevalence rates of 'normative' collectors or the number who have collected within a specific time in their lives can only be speculated upon. The basis for those speculations is likely to vary greatly as there is a lack of a generally accepted definition of what constitutes normative collecting. The brief review of the history of collecting above also suggests that how collecting behaviours are defined has changed over time, therefore it is important to consider collecting within the time period in which it occurred. Additionally, inability to differentiate normative collecting (that potentially may be driven by undiagnosed mental health issues) from hoarding disorder may affect our ability to adequately estimate the prevalence and incidence rates of actual normative collecting, as "collecting is a behaviour that mirrors many of the core features of hoarding (e.g. the acquisition of and emotional attachment to a potentially large number of objects)" (Nordsletten et al., 2013, p. 230). Delineating the diagnostic boundary is also difficult as to date only one study has been published differentiating hoarding and normative collecting (Nordsletten et al., 2013). Nordsletten and Mataix-Cols (2012) assert in the first published review of the collecting literature that the lack of empirical research makes it difficult to form any conclusion about normative collecting and warn that one can never assume that collecting that may seem normative is not driven by negative emotional and psychological behaviours.

For the purpose of this thesis normative collecting refers to collecting behaviour that is generally benign and causes the individual no significant impairment in terms of social, relational and interpersonal functioning. Two studies attempt to estimate the prevalence of normative collecting behaviours. The Consumer Behaviour Odyssey, an international and inter-disciplinary project focusing on consumer behaviour, estimates that around a quarter to a third (25-33%) of the adult population of the Western World would describe themselves as collectors during any given period (Belk et al., 1988). The most robust attempt at assessing the prevalence of normative collecting within adults is the "Contemporary Collecting in Britain Survey" (CCBS, Pearce 1993). The CCBS involved a postal survey which randomly sampled 1500 UK adults and obtained a 60% (n=900) response rate. Pearce reported that

considering all those who have had or have collecting experience then it could be estimated that 50% of adults in the UK could be considered a collector at some point in their lifetime (p. 1). Using the more conservative estimation offered by Belk, then at this moment in the UK there could be between about 13-17 million people who currently or have at one time considered themselves a collector.

Given the potential prevalence of collecting behaviour in just a UK population, it is surprising how few studies examine this common human behaviour. Nordsletten and Mataix-Cols (2012) located only 12 sources considering normative collecting after a detailed database search linked to a review the literature comparing hoarding and normative collecting. Five of the sources studied a single genre of collectors, using observation, interviews and/or surveys, that is Dannefer (1980; 1981) studied car collectors and enthusiasts, Long and Shiffron (1997) watch collectors, Slater (2001) coca cola collectors and Huang, Chiou and Chang (2008) studied Taiwanese collectors of convenience store gifts. The other seven sources used non-genre specific collecting samples with four using interviews and observations (Belk et al., 1991; Belk, 1995; Case, 2009; Danet and Katriel, 1989) and three using a survey method (Formanek, 1991; Pearce, 1998). The methodology of these studies was weak, and therefore any conclusions must be considered cautiously. Since the review Nordsletten et al. (2013) have published a small comparison study considering demographic, clinical and collecting characteristics of a self-identified sample of collectors (non-genre specific) versus diagnosed hoarders. Nordsletten and colleagues provide formative psychology based contributions to understanding normative collecting behaviour in humans. In addition to the lack of empirical research, theorising on collecting is equally non-apparent. There are a few academic sources which aid understanding of the nature of collections, the collectible and the collector. Theoretical accounts which do exist stem from a range of disciplines, marketing and consumerism (Belk et al., 1988, Belk, 1995), museum studies (Pearce, 2010, 1998, 1993; Martin, 1999), psychoanalytic case studies (Muensterberger, 1994; Subkowski, 2006) and psychology (Nordsletten & Mataix-Cols 2012).

Whilst drawing firm conclusions from existing evidence is challenging, there are some evolving trends and debates associated with the demographic profiles of normative collectors, and ideas about the nature of their collections and the types of objects they may choose to collect.

Gender and Collecting.

Gender and the relationship with collectibles and collecting has been reflected upon in a number of collecting theories and sources (Belk & Wallendorf, 1994; Belk, 1995; Martin, 1999). Consumer and marketing research by Belk (1995) suggests that collecting is predominantly a male pursuit due to economics and male gender socialisation. He suggests that men have more money to spend on collectibles, as traditionally males have been in control of household finances and how it should be spent. Belk (1995) also suggests that males are more likely to prevail, as collecting could be considered "an aggressive and competitive activity which fits with male gender role socialization" (p. 484). Dittmar's (1991) social behavioural perspective also suggests males are more likely be collectors, but argues that males are more concerned with the functionality of the object collected while females were more concerned with the aesthetics of the object and form stronger emotional attachments to their collectibles. From a museum studies perspective, Martin (1999) concurs that collecting is a male dominated pursuit. Taking an historical perspective to justify his position, Martin (1999) writes that "that real collecting was no concern for women due to its scientific nature ... during the Victorian era male collectors took control of collecting and rejected potential emotional aspects by promoting collecting as a systematic and scientific masculine pursuit" (p. 69). Martin (1999) also argues that making collecting scientific "ousted women from the [collecting] mainstream" (p. 70) and allowed collecting driven by emotional attachment to objects to be dismissed as fads and crazes. Belk (1995) suggests that this aggressive male mastery is historically true in most collecting spheres, however he also acknowledges that there have been some important historical female collectors such as Catherine de Medici and Catherine the Great. However he suggests that even though there have been renowned female collectors, historically female collecting behaviour was purely about acquisition and ownership rather than an important scientific activity. Belk and Wallendorf (1994), Martin (1999) and Dittmar (1991) all offer explanations of normative collecting based on historical material suggestive of patriarchal power and dominance, there is little contemporary empirical evidence that verifies that males are more likely to be collectors than women.

Martin (1999) sought to explore the world of contemporary collectors' clubs and gender involvement using quantitative and qualitative methods. He surveyed 128 collectors club and found that only 15% of collector clubs estimated female membership at above 51%. He

reports gender differences in terms of nature of collection and reason for collecting, finding female dominated clubs, such as teddy bears and spoon collectors and male dominated clubs, such as guns, classic cars, bottle collecting. Belk and Wallendorf (1994) suggest that although collecting may allow the collector to take part in stereotyped gender specific pursuits, "collecting also permits experimentation with androgyny as an individual collector can participate in the masculine hunt for additions to collections, as well as a feminine nurturance in curating the collection" (p. 251). Pearce (1998) dismisses the idea of the male dominance in collecting, finding in the CCBS study (1993) that females were more likely to self-report being a collector, 42% male versus 58% female in her sample. Pearce (1998) suggests her findings are "in defiance of the accepted wisdom which draws on the evidence of past museum accessions registers and the membership of a limited range of collectors' clubs, particularly those devoted to traditional materials ... to suggest more men collect than women" (p. 26). Pearce (1998) also cites research carried out at the Victoria and Albert Museum, which suggests that there were a significant number of women involved in collecting a wide range of materials throughout the 18th 19th and 20th centuries (p. 26).

Although there is some debate on which gender dominates collecting there seems to be some consensus that there are differences in what is collected by males and females. Belk (1995) surveyed 200 collectors and found that men are much more likely than women to collect automobiles, guns, stamps, antiques, books, beer cans, wines, and sports-related objects, while women are much more likely than men to collect jewellery, animal replicas and housewares such as dishes and silver. Belk cites anecdotal research, such as Gelber (1992), Soroka (1988), Stenross (1994) to support his finding that men and women have gender biases within specialty collecting areas. Pearce's CCBS (1993) survey also found gender differences in terms of objects collected, whereby men in the UK dominated collecting of machinery (100%), musical instruments (100%), militaria (100%), sporting collectibles (86%) and recorded material (72%). Women within the UK possessed 87% of household collections, 83% of room ornaments, 80% of jewellery and 72% of tourist goods. Although gender domination and gender specific collecting is considered with regards to the type of collectible, little consideration has been given to the size of a collection and if size of collections is gender specific and how that may reflect socio-economic variables previously linked with gender by Belk (1995) and Dittmar (1991). The only published study to examine the nature of collections, reported gender differences as well as age differences when it came to size of collections with younger men more likely to possess larger collections than women

(Pearce, 1993). The CCBS study found that 67% of large collections containing more than 100 objects were mainly held by men, with 55% of these large collections being held by men aged 18-25 years (Pearce, 1998, pp. 32-33).

There are currently mixed findings with some suggesting collecting is dominated by men (Belk, 1995; Dittmar, 1991; Martin, 1999) and others suggest slightly more females collect (Pearce 1998). The inconclusive findings between sources may reflect variability in sampling methods, data collection methods and overall weak study design in normative collecting research. The idea of gender specific collecting seems less contentious with most studies finding preferences for particular collectibles across the sexes, however what this means in terms of motives for collecting has never been examined.

Age and Collecting.

As with gender, a few sources have speculated about the relationship between age and collecting behaviour. Many theorists, past and present, believe that collecting behaviour is a prevalent pursuit starting in childhood (Burke, 1900; Danet & Katriel, 1989; Durost, 1932; McGreevy, 1990; Witty & Lehmann, 1931; Nordsletten & Mataix-Cols, 2012). Belk (2001) states that, "nearly all Western children collect and boys and girls are equally as likely to be avid collectors ... [and] that adolescence collecting declines for both sexes, but especially for girls" (p. 97). Pearce (1995) states, "it is clear that collecting is more common amongst children than amongst adults. Some child collectors become adult collectors, some child collectors abandon collecting as they leave childhood behind and some adults collect who never did so as children" (p. 238). Pearce argues that this may rule out any conclusion that adults are experiencing a prolonged childhood, where the adult is more interested in materiality (p. 238).

Pearce's (1993) CCBS study of collecting found that overall younger people were more likely to self-define as a collector. In exploring the differences between adult age groups in terms of continuance or initiation of collecting behaviour, Pearce found that just under a quarter of 18-45 year olds in the study reported themselves as collectors. A reduction in the number of self-reported collectors was noted in the 46-55 year age group (13%), with slight increase post 56 years (15%). In explaining the results from the CCBS study, Pearce theorised a socio-economic explanation by proposing that younger people had fewer commitments and more disposal income. She explains the reduction in self-defined

collectors between the ages 46-55yrs, by ascribing the financial and time pressures of bringing up and supporting a family. The slight increase in self-defined collectors between the ages of 56-65 years is explained by a "lessening of family and financial burden as children grow up and move away leaving time and financial freedom to indulge in one's passion" (p. 26). Although Pearce's ideas about the relationship with age and collecting seem plausible, to date it is the only study to have examined the nature of normative collecting across the lifespan of collectors, therefore drawing meaningful conclusions about age trends within collecting is currently impossible.

Ethnicity and Collecting.

Case (2009) suggests that normative collecting is an almost universal pursuit, however there is little empirical research to confirm his hypotheses and no cross cultural studies or ethnically diverse samples examining how collecting may manifest in differing countries and ethnic groups. To date most samples discussed in normative collecting sources have either not mentioned the ethnic breakdown of samples (Belk, 1995; Case, 2009; Dannefer, 1980, 1981; Slater, 2001) or been dominated by Caucasians (Danet & Katriel, 1989; Pearce, 1993). Pearce's (1993) CCBS study is the most robust and largest collection survey to date, and she reported an ethnic sub-sample of collectors but it was so small that it was not separated from the overall sample and not subjected to specific ethnic analysis. Pearce (1998) speculates from eyeballing the CCBS data, that is "collecting processes seem to operate in the same ways for non-white individuals as they do for the white British population" (p. 30).

Fans, Fanatics and Connoisseurs.

The notion of the connoisseur collector is noted in sources from social psychology (Danet & Katriel, 1989), consumerism (Belk, 1985) and from an art history perspective (Strone, 2010). The connoisseur types are seen as like a scientist in their rational and objective approach within their collecting interest and understand the subtleties within their collecting genre. Danet and Katriel (1989) as well as Belk (1985) suggest that connoisseurs are different than non-connoisseurs, as it is the connoisseurs who are more interested in categorisation and have the ability to define and understand what is best to collect in terms of value, prestige and rareness of collectibles. They suggest that non-connoisseurs, are passionate subjective consumers who can accumulate sizable collections and are more interested in the aesthetics of the object than its commercial and cultural capital (Belk, 1985). Art historian Frank

Herrmann in his book of case studies "The English as Collectors" (1972), suggests that nonconnoisseurs are merely driven to acquire and own objects. From a consumer perspective, Belk (1985) sees the non-connoisseur as a less serious collector who has lots of objects within their collection as he suggests that the "non-connoisseur is the best exemplar of consumer culture" (p. 43). Strone (2010) relates that connoisseurship in Britain has been regarded as an essential process within collecting well into the 20th century, and expands beyond the confines of art history, criticism and science as evidenced in early 20th century publications such as "The Connoisseur" and "Illustrated Magazine for Collectors". These publications promoted the collector as connoisseur in a broad spectrum of objects from not only art but also prints, butterflies, musical instruments, etc. The Museum of Domestic Design & Architecture Guide to the Magazines and Journals Collection states that "The Connoisseur Magazine" was published in 1901 and was hailed as 'an illustrated magazine for collectors'. The Connoisseur Magazine was produced quarterly and included articles on all kind of collections, such as stamps, porcelain, paintings, pottery, furniture and glass. Whilst the idea of the connoisseur reflects refinement and specialism, this connoisseurship may be across broad genres or sub-genres of collecting, and there may be specialist connoisseur collectors clubs for the elite and expert collector. Pearce (1998) describes those who collect within this broader genre as the "new Connoisseurs ... who create new symbolic hierarchies broadening of value through their gathering up of material of mass culture ... Especially when they associate it with playfulness, deliberate seriousness or subversion" (p. 14). Danet and Katriel (1989) talk about this idea of connoisseurship within normative collecting as the amateur/ hobbyist collector (non-connoisseur) in comparison to the more serious collectors noted as connoisseurs. Belk (1985) distinguishes between the ordinary acquirer and the connoisseur, were connoisseurs are thought to develop a greater understanding and expertise within their subject.

Thorne and Bruner (2006) talk about the idea of fans and connoisseurs, and appear to sees these kinds of collectors as being distinguishable in terms of their levels of fanaticism. Thorne and Bruner (2006) discuss the behaviour of 88 fans using an unstated methodology which seems qualitative in nature. Thorne and Bruner (2006) state, "to begin with, a fan is a person with enduring involvement with some subject or object, often a celebrity, a sport, TV show, etc. It is not usually used to refer to products in the typical marketing sense though products related to the object of fascination could certainly be of interest to fans" (p. 52). Thorne and Bruner (2006) go onto to identify three levels of fan using the concept of

fanaticism to define the degree of intensity and "level of investment one has in their liking or interest" (p. 53), rating this from low to high fanaticism. Thorne and Bruner describe the levels of commitment to the desired object, and suggest that the fan with low fanaticism has a passion for their interest, be it an object, person or idea, and whilst they can be viewed as socially unconventional or eccentric they do not seem to be defined by society as abnormal. At a more extreme level Thorne and Bruner (2006) describes fans with high fanaticism as having an overwhelming interest which may be so extreme that socially it becomes seen as abnormal or that the individual is dysfunctional. Thorne and Bruner talk about collectibles in terms of primary and secondary materials. The primary material being the area of focus or interest, for instance football or vintage clothing, and the secondary material relates to acquisitions which are related to the primary material, e.g. a primary interest in Dali paintings and secondary material may be a Dali signed tie. This high level of devotion, dedication and enthusiasm is evidenced in many serious collectors or connoisseurs, (Belk, 1985; Danet & Katriel, 1989; Strone, 2010).

Fanaticism as a measure of involvement in collecting may be an interesting approach to distinguishing between different kinds of collectors, particularly as it moves away from the simple notion that size of collections indicates level of involvement in collecting behaviour. Chung, Beverland, Farrelly and Quester (2008) in a small qualitative study based on consumer activity examine the phenomena of extraordinary devotion in relation to consumption amongst six self-identified collecting fanatics. From their study they indicate that fanaticism is characterised by high levels of loyalty and devotion that is beyond the average, usual, or ordinary level. They note that 'ordinary fans' may have a strong emotional attachment to the collected object, which is associated with feelings of passion, love, and dedication however for fans high in fanaticism the devotion, enthusiasm, passion and attachment to objects can become so extreme to the point where it could be seen as bordering on dysfunction. Chung et al. (2008) and Redden and Steiner (2000) both suggest that for some fan collectors their level of fanaticism may reflect underlying problems linked to addictions and compulsions where they feel compelled to acquire, understand and engage with the objects of their desire. Whether an individual can become addicted or have compulsions to collecting (other than hoarding) has not been empirically tested although it has been alluded to in theory such as Belk et al. (1988) and alluded to in Formanek's (1991) study of 167 collectors where she found only 9 respondents mentioned addiction, compulsion or obsessions in relationship to their collecting behaviour. However Formanek points out that

even though the terms were mentioned "definitions and introspective data was missing. Only one collector reported on his state of mind". (p. 333). Therefore it would be hard to come to any conclusion relating to addiction compulsions or obsessions from this data.

Chung et al. (2008) also found that fanaticism can be a group or social experience, but it "can be an intensely personal experience that continues even with a lack of group or social support" (p. 2084). Chung et al. (2008) identified four themes linked to the process of evolving fanaticism:-

- 1) Seed;
- 2) Gratification of experience(s);
- 3) Conversion;
- 4) Drivers that enhance consumer's levels of devotion.

Chung et al. (2008) use the term "seed" to describe or conceptualise the origins from which passion and enthusiasm grows, evolves and blooms with external or social influence central in providing the individual initial encouragement to interact with the objects. From this seed position, passion may develop along with increased involvement with objects or things of interest. Another theme reported in this study was "the gratification experience", this relates to how consuming and continuing to consume desired objects offer the consumers feelings of "satisfaction, fulfilment, indulgence, enjoyment, pleasure, delight, or a combination of these positive sensory encounter(s)" (p. 2086). Chung et al. (2008) suggest that this attachment to objects may be due to positive initial experiences with the object that are returned to through re-consumption of the object as a form of escape from the mundane or pressures of life and thus may drive collecting behaviour to negate these feelings. The "conversion" theme relates to the idea that as the individual returns frequently to the consumptive object, as a rejection of the mundane or reliving of past experience, the object becomes an important stabilizing factor that makes the individual feel good about the world by taking away pain. In psychological terms Chung et al. (2008) are suggesting that pursuit of desired objects and collecting is driven by negative reinforcement, i.e. collecting stops, removes or avoid an aversive or painful stimulus rather than the just the object being intrinsically rewarding (positive reinforcement). Chung et al. (2008) suggest this is where conversion may take place, whereupon the consumption of the object rather than being externally driven converts to being internally driven and where reward is becoming reinforced in the object and therefore passion for the object may develop. Chung et al. (2008) states, "this may lead to the development of reliance on the object and addictive-like behaviours because the individual

learns through repeated experiences of gratification to rely on the object as a source of comfort and pleasure should they encounter similar problems in the future" (p. 2087). Finally Chung et al. talk about the driver of self-sustaining passion & enthusiasm, and suggests that ensuing from conversion is that individual's commitment, perhaps psychological dependency, on the object evolves. Outwardly this could be seen as loyalty to the object, but could inwardly reflect a psychological dependency which results in growing reliance and commitment to an object. However, Chung et al. (2008) proffer that some fanatics may understand they have taken their involvement, commitment or attachment with objects too far, as at times fanaticism may have negative implication for other areas in the fanatics life and socio-economic consequences e.g. loss of relationship or job. These negative consequences, according to Chung et al. (2008) help the fanatic regain perspective and pull back or reduce their commitment to the object.

In conclusion, descriptions of different kinds of collectors reveals that collecting behaviour is thought to be an evolving process, and that across time the function of collecting, the collection and the collectible may change as the individual collector develops. For some collecting is about acquiring as many objects as possible in their selected genre or area of interest, for connoisseurs quality is valued more over quantity. Connoisseurs appear to see their collectibles and collections as a reflection of themselves and as way of self-enhancement through becoming expert and knowledgeable in the subtleties of their specialist area. For connoisseur's social connections with others are important being a valued source of validation, providing opportunities to teach and initiate less sophisticated collectors, and permits involvement in connoisseur clubs. For the non-connoisseur, social connection is about acquiring objects and some may look for guidance and potential expertise on how to develop and evolve as a collector.

Normative Collecting Process

As pointed out by Nordsletten and Mataix-Cols (2012) little empirical research considers normative collecting behaviours and processes, therefore we know little about what steps are taken when an individual considers collecting and what perpetuates this behaviour. It appears to be generally accepted that collecting is an evolving process developing over time (Belk, 1995; Chung et al., 2008; Pearce, 1998; Taylor & Quayle, 2003). How the collector evolves has not been examined, although Chung et al.'s (2008) four themes of the evolving fanatic

provides some theoretical ideas about the transition from novice to entrenched collector, perhaps even pathological collector. A social psychological model of collecting has been offered by McIntosh and Schmeichel (2004) who have conceptualised the process of collecting as a self-reinforcing behaviour involving an eight step cyclical process (Figure 1).

Stage 8 Deciding Display / Cataloguin to Collect **Post** Gathering Acquistion Information Planning & Acquistion Courtshi The Hunt

Figure 1: McIntosh and Schmeichel's (2004) Model of Collecting Processes

McIntosh and Schmeichel's (2004, p. 88) eight steps are summarised as follows:

- 1. Decide on collecting goals to be achieved, and deciding what objects to collect;
- 2. Gathering information about the objects of interest;
- 3. The individual then thinks about the object and makes plans about how to acquire it;
- **4.** Hunting for the objects he/she desires;
- **5.** Actual acquisition of the object/item;
- **6.** Post-acquisition, study and react to the acquired object;
- 7. Catalogue and display the acquired object;
- **8.** This stage refers to a decision point in which the individual may decide on whether to continue collecting X type of object resulting a move to step 3, or they may start again at step 1 applying their new found knowledge to re-think about that they would want.

Whether collectors go through McIntosh and Schmeichel's (2004) model remains to be tested. It is unclear if all collectors go through the eight steps sequentially and whether there may be individual differences in the time taken to move between steps and whether some steps may be omitted, such as cataloguing (Step 7) as the evidence suggests this organisation is not important to all collectors (Nordsletten et al., 2013; Pearce, 1998; Sheldon and Howitt, 2007).

Collection management.

According to Johnson (2014), collection management refers to a broad range of activities, and can be grouped around four broad domains:-

- Collection development involves acquisition of new objects, and disposal, swapping or transferring of existing objects;
- Collection Care refers to protection, conservation and environmental control of existing objects in the collection;
- Collection Information relates to archiving, cataloguing and if relevant digitisation to ensure a permanent and accessible record of the collection;
- Collection Access is the rights of use, evidence of ownership and in general appropriate governance of the collectibles and the collection.

Collection management behaviour and underlying psychological processes have not been the focus of much psychological research, but it is likely that the emotional attachment which appears to form between the collector and their objects, (Muensterberger, 1994; Steketee, Frost, & Kyrios, 2003; Nordsletten & Mataix-Cols, 2012), would mean that management of the collection would be an important and rational undertaking for most collectors.

Collection management has been noted as important through history, with Ameen (2005) reflecting that from ancient times to modern day the creation, development and management of collections have been a core activity. Anderson (1985) writes that the ultimate goal of an effective collecting program within museums is to develop a collection which represents a "microcosm of a particular universe" (p. 297). Anderson (1985) goes on to share ideas about the importance of archiving to collection development, reasoning that when confronted with an unknown universe from which to collect, archives must deal with "two basic procedural issues in order to begin to develop a coherent, well-focused collecting program" (p. 297).

Firstly, the collector must define initial collecting parameters, and then determine which of various collecting strategies are best suited to meet their goals and available resources. Elsner and Cardinal (1997) suggest that collecting is a basic human condition which thrives on classification, on rules, on labels, sets and systems (p. 2). Pearce (1992) theorises that within museum studies object research and classification is seen as an integral part of understanding the meaning of objects and collections. Danet and Katriel (1989) suggest that getting everything in a set of objects is a strategy used by many collectors to gain perfection within McIntosh and Schmeichel (2004) talks of "possession rituals" after a their collection. collector has acquired an object of desire, and this could include cleaning, cataloguing and methodical ordering. Nordsletten and Mataix-Cols (2012) note in their literature review that current sources of normative collecting "appear to support the notion that organized accumulation, rather than obstructive accrual, sits at the centre of collecting practice" (p. 171). Seemingly collection management processes are fundamental to collector, with cataloguing, ordering and archiving thought to aid retrieval of objects as well as building knowledge about the collection and creating awareness of overlap, completeness and gaps which motivates collection development and refinement.

Pearce's (1998) CCBS study tested the assumption about the importance of organisation to collectors, and found that collectors did not organise collections nor did they engage in associated tasks like research and note-taking which supports archiving. Pearce qualifies this assertion about the disinterest shown by collectors in collection management by reflecting on curators' experiences of the problems caused by donations of disorganised personal collections (p. 139). Pearce (1998) also found that collectors were not motivated to complete set or series. Contrary to Pearce (1998), Nordsletten et al. (2013) found that 95% of their collector sample organised collections, and that this was a distinguishing feature between collectors and hoarders. It is difficult to discern why these different findings may have occurred as the both studies used generic collector groups and provide little information about the types of collectors and collectibles possessed; this could impact on capacity to organising. There were also differences in gender distributions across samples as Pearce had proportionately more females and the method of data collection varied greatly i.e. postal surveys and clinical interview.

How important the collector considers collection management is currently inconclusive. Theoretically, collection management is thought a central function bestowed upon the owner, especially of large collections held in museums (Johnson, 2014; Martin, 1999; Pearce, 1992), however, for the private collector it is unclear if organising, cataloguing, set completion and curatorship is important (Pearce, 1998; Nordsletten et al., 2013). Additionally collection management in empirical research is often considered in very narrow terms, i.e. organisation and cataloguing, however museum theory and McIntosh and Schmeichel (2004) point out that collection management can also be about development and refinement of the collection. Finally, the idea of collecting, the collection and the collectible as an evolving process is well accepted, but the psychological processes involved in the development and refinement of collections remain unexamined.

Motivations for Collecting

What drives collecting behaviour in humans is poorly understood, reviews of historical accounts of collecting (Elsner & Cardinal, 1997; Pearce, 1998), case studies of collectors (Muenstenberger, 1994), anecdotal collector narratives (Nicholson, 2006), literature review (Nordsletten and Mataix-Cols, 2012) and empirical studies (Formanek, 1991; Danet & Katriel, 1994; Pearce, 1998; Huang et al., 2008; Case, 2009; Nordsletten et al., 2013), all point to the fact that collecting may be driven may multiple psychosocial functions, and in some cases possible underlying mental health issues. Marketing and consumer research (Belk, 1995; Danziger, 2004) offers external motivations for collecting, in particular it is driven by clever marketing. Hoarding research offers some alternative explanations, implicating neurobiological mechanism in pathological collecting behaviour.

Marketing and collecting.

Consumerism theory and marketing offer the idea of collecting can be driven by forces external to the individual (Belk, 1995; Danziger, 2004). From a marketing perspective the idea of the externally driven collector is clarified by Danziger (2004) who relays that marketing focuses on the emotional aspects of the buyer with an aim to make them buy objects they do not need. Danziger (2004) argues that consumers make emotion based decisions when buying discretionary products, that is they buy what they want rather than need as "there is no strict rational reason for buying something you don't need" (p. 267). Danziger (2004) suggests that due to the emotional want of consumers they are prone to be influenced by marketing cues which are produced to reach the consumer on an emotional level. Recognising the consumer involvement in decision making, Danziger discusses the

importance of justifiers (constructed messages) which are produced by marketers/advertisers to promote an inner argument in the consumer which allows them to fall for marketing seduction whilst feeling good about purchasing the object. Danziger's (2004) research indicates that the more unnecessary or illicit the product then the more elaborate marketing justifiers is required. In terms of manufactured collectibles the buyers' justify embarking on a collection due to the marketing promise of future increase in value, particularly if they achieve set completion. These justifiers or marketing promises are instilled within objects so that buyers associate the object with positive emotional and/or future monetary rewards. Justifiers allow the individual to override internal psychological inhibitors about buying and collecting a product/object which may be valueless and useless. In effect the manufacturers seek not just to manufacture mass market collectibles but also manufacture happy contented collectors to buy what will probably be worthless collectibles.

Danziger (2004) writes about the emotionally driven (manufactured) collector as having a voracious appetite for buying and alludes to this behaviour as the consumer seeking emotional satisfaction that allows them to feel better about themselves and their life. She also relays that an individual's emotional feeling that buying products will make them feel good is the main justifier used in marketing. As previously discussed Belk (1995) offers a similar analysis identifying emotion soothing and possible reward associated with human collecting, and the potential for external forces to exploit others by creating narratives that justify collecting, overcome internal inhibitors and in turn permit the purchase of objects that the person may or may not desire.

Psychology and collecting.

Subkowski (2006) and Muensterberger (1994) use psychoanalytic theory to explain adult collecting behaviour. Subkowski (2006) states all children collect items during a certain age period, and the intense preoccupation with these objects serves many cognitive functions such as creating categories, making comparisons and building mastery (1991). At a socio-developmental level Subkowski (2006) suggests that these collected objects are used to interact with peers, as collectibles provide a focal point in which like-minded others can connect, form groups, trade, swap and negotiate. Subkowski suggests that whilst collecting manifests in childhood it is phase which ends quite quickly, but for some this collecting behaviour may extend into adulthood (Pearce 1998). Subkowsi's work would suggest that

collecting is a normal developmental behaviour, which helps the developing child build social skills and experience social inclusion, as well as building pattern recognition capabilities, goal setting and goal attainment skills. Muensterberger (1994) using psychoanalytic theory as a basis for exploring the collecting phenomenon, states that "possibly the most salient feature in human development and individuation - the extent of total helplessness and absolute dependence on others - implies a fundamental condition of anxiety or imperilment that makes seeking and reaching out for presumably protective objects imperative" (p. 26). According to psychoanalytic theory when a child who is totally reliant on paternal investments of nurturing, love and safety but feels rejected through parental absenteeism or neglect they suffer deep feelings of anxiety, insecurity or vulnerability. To circumvent the feelings of anxiety, insecurity and vulnerability the child bestows upon objects, such as toys, magical powers that ease anxiety related to the trauma of feeling neglected and alone. Muensterberger (1994) is of the opinion, that although this power is not visibly tangible it is the very idea that the child believes in the power that gives the object an effect that is symbolic or equivalent to parental strength when the child needs nurturing or support. In effect due to the child's perceptions of parental neglect objects begin to become primary objects of special importance, and the objects are imbued with powers that comfort the child. A pertinent example of childhood objects that may be imbued with magical supportive powers are the comfort blanket or the toy a child is never without. This idea also reflects Winnicott's notion of the transitional object (Winnicott 1953).

Muensterberger (1994) suggests that attaching nurturing powers or what he terms Mana (life force) to objects makes them special. Owning them also appears to make the person feel special and that they have a unique and exclusive relationship with the object, which seems to reflect the collectors experience with the collectible and collection. Muensterberger's theory would suggest that the emotional attachment to objects may represent some unmet childhood need for care, attention and a secure relationship. Collecting objects in later life may symbolise this trauma and could be a way of escaping both current and historic relational anxiety. Psychoanalytic ideas put forward by Subkowski (2006) suggests that this escape can be like an addictive need to revisit early trauma, and the need to collect and handle particular objects can become like a drug that replaces any real relationship. "The collected object cannot disappoint, humiliate or frighten its possessor" (Subkowski 2006, p. 692), however repeated exposure to the collected object, or the reminder of childhood trauma, could over time activate the conscious and unconscious trauma memories and feelings. Muensterberger

(1994) offers a slightly differ perspective on collecting emphasizing the repetition compulsion, but again sees collecting and the fantasy triggered by the collectible as method for reducing anxiety. "The collector's experience, real or imagined, allow for a magical escape into a remote and private world, is perhaps the most intriguing aspect of a collector's scenario. But it is not enough to escape this world only once or even from time to time. Since it represents an experience of triumph in defence against anxiety and the fear of loss, the return must be effected over and over again" (p15-16). This repeating process in terms of psychoanalysis has been explained in terms of hunger and replenishment, whereupon no matter how often one eats hunger will shortly follow. Long and Schiffman (1997) also point out the repetitive nature of collecting and its emotional regulatory function, referring to collectors as "tension machines" and only able to relieve the tension through continual acquisition of objects for collections.

According to the psychoanalytic studies of collecting, it appears that collectibles can be seen as symbols of attachment and support the process of autonomy building and act like transitional objects serving to support the child when separated from the primary attachment figure. Collecting is also though to help socialisation with peer group and supports the development of goal-directed behaviour and mastery. Muensterberger (1994) and Subkowski (2006) indicate that childhood trauma may interrupt normal childhood development, with collecting extending into adulthood in which collectibles and collections represent old wounds and the collecting process supports avoidance behaviours that fend off the old traumas but in the long—term may take the person back to the place he/she was hoping to escape. Psychoanalytic theory also offers ideas that collecting in a repetitive cycle, and could reach levels where the person feels compelled to collect in order to escape anxiety or act out old traumas. Overall psychoanalytic theory suggest that collecting is "self-psychology" were the individual seeks to develop a "healthy, cohesive and stable sense of self" (Formanek 1991, p. 329).

Formanek (1991) exploratory survey of collecting did not test any psychoanalytic hypothesis, but was formulated to explore collecting with a focus on motivations to collect. Using a non-representative sample of 167 participants comprised of both genders, children students, academics, collectors and dealers with an age range of 9 to over 55, found that only 30 responses were classified with the motivation pertaining to self. She suggests that "one would expect some collectors to refer to their being motivated by a need to counteract a sense

of loss, low spirits or depressed states and by need of elation, yet only one collector expressed such an motivation" (p. 332). In summary, Formanek (1991) provides little evidence in support of the psychoanalytic view of collecting, however problems with the quality of reporting, sampling methodology employed and the potential impact of confounding variables and implicit perception of collectors as homogeneous makes it difficult to decipher the results and have confidence in the overall findings from this survey.

Nordsletten et al. (2013) found some support for the psychoanalytic hypothesis that collecting may be linked to anxiety, as about 20% of the sample had recurrent depression or anxiety issues. However the majority of collectors in this sample were relative free of anxiety, depression and PTSD, and the majority reported being in committed relationships and had no significant social adjustment issues. It seems that whilst psychoanalytic theory may provide a useful explanation for a minority of collectors, on the whole anxiety reduction, emotion regulation and addressing attachment issues does not seem a primary function. Collecting for pleasure, or as a hobby was found by Pearce (1998) to be the primary driver of collecting as most people reported that they collected simply because they liked it, 80% of males and 91% of females collected primarily for pleasure. About a quarter of participants in Pearce's (1998) study reported little desire for the objects and only a few indicated that they used their collectibles to bring back memories. Nordsletten and Mataix-Cols (2012) suggest that we treat "collecting as an ego syntonic leisure activity that provides psychological benefit to its participant" (p. 166), and these ideals are similarly reported in Belk (1995), Carey (2008) and Pearce (1998).

Social and financial factors and collecting.

Motivation for the collector may also be driven by social and economic gain, due to the monetary value and cultural capital associated with collectibles, collection and collecting. The historical review noted previously emphasized the social aspect of collecting, with the social function developing over time along with the widespread adoption of collecting behaviour. Research would suggest the importance of collector communities in terms of creating and enhancing monetary value and importance of objects through social interaction. Carey (2008) suggests that to complete a collection, the collector may find the need to turn to a secondary market. A secondary market for the resale of collectibles is a community associated with a collectible object, and this community can raise the social value of the

collection. Carey (2008) writes that a well-developed community attached to a collecting genre will assign value to certain standards for the collectible (e.g. size, generations, weight), assign value to authentication standards (e.g. condition, grading scales), support investment value (by providing collector's guides and a more stable market for resale) and create a social network with other collectors providing a sense of attachment and community, which could be offline or online through discussion boards, conferences, collector fairs, club memberships. Although some research suggest that financial investment may play an important part in the motivation to collect and evidenced as a part of the theorising about collectors clubs, Formanek's (1991) survey reports that out of 90 participants who responded to a question concerning motivation only 8 responded that financial investment was primary motivation and for 12 participants it was a less significant part of their multi motivations however how important the financial motivation was for these participants was not discussed.

While there may some argument concerning financial motivation other research suggest the importance of sharing the collection. Pearce (1994) sees sharing as beneficial to mental health when she suggests that sharing with a group of like-minded others contributed to collector well-being (p. 332). Belk and Wallendorf (1994) suggest that an underlying motivation to share is a desire to gain recognition for their collections and to elicit the opinion of others as to their behaviour being legitimate and worthwhile. Sharing and social relationships with other collector, allow permits opportunities to gain knowledge and overall giving those that see the collection a richer sense of history (p. 320). McIntosh and Schmeichel (2004) and Case (2009) both confirm the importance of the social component of collecting, noting sharing and interacting with others about their interest as the most important aspect of collecting.

Formanek's (1991) survey of collectors would seems to disagree with these assumptions as she reports that only eight respondents referred to the importance of collecting in relation to other people (p. 332). However, later studies, such as, Pearce (1998) and Belk (1995) found that the vast majority of collectors sampled in their studies liked to interact with others concerning their collection. Pearce (1998) wrote that "most collectors share their practice with family and some do more widely in context of work or a demonstrating hobby" (p. 20). Nordsletten et al. (2013) found that 90% of the collectors sampled, "report forming and engaging in social relationships as part of their collecting behaviour" (p. 235). This motivation to share and socially interact is not surprising as Pearce (1998) found that 50% of

her sample felt that their collection was a part of them and also that the majority of collectors felt that their collections were important, with men more likely than women to place importance on their collection. Social interaction with fellow collectors is therefore likely to normalise and validate the collecting behaviour, moreover the imbuement of self in the collection means that expressions towards the collection are likely to be personalised and if positive elevate self-esteem. Although Formanek's earlier (1991) study reports that social engagement was not important for the vast majority of her collecting respondents, she agrees with Pearce that for those that did see it as important to share their passion or see that their collection has meaning in relation to other people "it contributes to the individuals sense of wellbeing and self-esteem (p. 332).

Social relationships and opportunities to display, share or talk about one's collectibles and collections seems highly important to normative collectors. Collector communities provide the opportunity for social hierarchies to form, and with there is a potential to gain social status and personal enhancement. Collector communities also provide opportunities to acquire, swap, discard and sell collectibles, and permit social interaction and the building of social relationships with like-minded others which could help build knowledge of the collectible, define parameters about what is available which in turn supports collection development and refinement. Opportunities to talk about current collections may also create opportunities for social comparison, with favourable comparison increasing self-worth and unfavourable comparisons diminishing self-worth and possibly creating unhelpful envy and competition (Singer & Salvoley, 1991).

Hoarding Disorder: Pathological Collecting

Hoarding has been defined empirically by psychologists, unlike normative collecting which currently has to be operationalised through theoretical accounts and case studies from a broad range of disciplines. Frost and Hartl's (1996) original definition clusters hoarding symptoms into three factors, that is, compulsive acquisition, difficulty discarding and clutter which causes impairment to the individual. Frost and Hartl's (1996) conceptualisation of compulsive hoarding was pivotal in challenging the prevailing notion that hoarding was a sub-type of Obsessive Compulsive Disorder (OCD), and consequently specific hoarding measures were developed and refined (Frost, Steketee, & Greene, 2003; Frost, Steketee, & Grisham, 2004; Steketee et al., 2003). The most recent version of the Diagnostic Statistical

Manual – Version 5 (DSM-5) has included hoarding as a distinct disorder and concurrent with Frost and Hartl's (1996) three clusters of symptoms.

Symptoms of hoarding disorder include compulsions to buy and/or acquire free things which are unnecessary or worthless, combined with difficulties discarding objects once they are in a This constant acquisition with little discarding results in an hoarder's possession. accumulation of objects building up, i.e. clutter. When this accumulation reaches a point that it circumvents everyday use of the person's living space, the unmanageable accumulation of objects (clutter) becomes a hoard. Even though the hoarder is often not distressed by the excessive quantities of items, it may cause them problems with others leading to social, occupational and/or relational impairment. These hoarding symptoms are thought to be underpinned by cognitive processes and behavioural conditioning, in particular information processing deficits, problems forming emotional attachments, behavioural avoidance and erroneous beliefs about the nature of possessions (Frost & Hartl, 1996; Frost, Steketee, & Grisham, 2004; Steketee et al., 2003; Frost & Steketee, 2014). Two hoarding measures which have shown good to excellent reliability and validity in screening for hoarding disorder and measuring the cognitive mechanism driving hoarding disorder, are the Saving Inventory – Revised (Frost, Steketee, & Greene, 2003; Frost, Steketee, & Grisham, 2004), and the Saving Cognitions Inventory (SCI - Steketee et al., 2003).

Steketee et al. (2003) noted that cognitive components, that is "specific beliefs about memory, attachment, control and responsibility are especially important in the development and maintenance of hoarding behaviour" (p. 464). The Saving Cognitions Inventory (SCI; Steketee et al., 2003) assesses the four factor model, with subscales for emotional attachment, beliefs about memory, responsibility and control. The SCI defines emotional attachments as emotional comfort provided by possessions, the tendency to see possessions as part of one's identity and attaching extreme value to possessions. Beliefs about memory include concerns about forgetting or losing important information if objects are discarded. Beliefs about control reflect the fear of having other people touch, move, or in any way interact with their possessions. Finally beliefs about responsibility involved the concern about wasting potentially useful possessions. Nordsletten et al. (2013) compared collectors and hoarders using a range of measures and interviews, including the Saving Inventory Revised (SI-R) and Saving Cognitions Inventory (SCI). As anticipated normative collectors scored lower on the SI-R and all the subscales. Collectors also reported less frequent saving cognitions than

hoarders both globally and across the range of subscales of emotional attachment, control, responsibility, and memory (p. 234).

Nordsletten et al. (2013) found that "like those with hoarding disorder, collectors reported acquisition of, attachment to and reluctance to discarding objects. However, the resulting clutter and impairment were minimal" (p. 229) in the collector group. Although collectors could acquire excessively, Nordsletten et al. (2013) found that collectors were more focused and selective in their acquisitions, more likely to organize their possessions and less likely to accumulate excessive clutter. Nordsletten et al. (2013) concluded there are important quantitative and qualitative differences between hoarding disorder and normative collecting (p. 229).

Co-morbidity and hoarding.

Pathological collecting, i.e. hoarding disorder, and the diagnostic boundaries between hoarding and other mental disorders and medical conditions has generated considerable research (Frost & Steketee, 2014; Samuels et al., 2008). Hoarding has been found to be associated with brain damage (Mataix-Cols, Pertusa, & Snowdon, 2011), developmental conditions such as Asperger's Syndrome and Autism (Haskin & Silva, 2006), Alzheimers and Dementia (Dondu, Sevincoka, Akyol & Tataroglu, 2015; Mendez & Shapira, 2008) Prader-Willi, (Greaves, Prince, Evans & Charman, 2006) and behavioural disorders seen in the elderly, such as, Diogenes Syndrome (Cipriani, Luceti, Vedovello and Nuti, 2012). Hoarding disorder has also been found to co-occur with a range of other mental disorders, such as Obsessive Compulsive Disorder (Samuels et al., 2008), Major Depression (Ayers, Saxena, Golshan & Wetherell, 2010); Generalised Anxiety Disorder and Social Phobia (Tolin, Meunier, Frost & Steketee, 2011), Personality Disorders (Eisen et al., 2006) and substance abuse (Wheaton, Cromer, LaSalle-Ricci and Murphy, 2008). Nordsletten and Mataix-Cols (2012) highlights that the diagnostic line between pathological and normative collecting has not been studied, and that it is highly probable that mental disorders may be present within collecting communities "which may have an influence on their approach to their collecting behaviour" especially those people showing autistic traits. (p. 173).

Reser (2011) sees collecting from an evolutionary perspective where people may be relating to evolutionary social functions such as foraging and storing food, however that behaviour is no longer needed in modern society hence what was once essential to survival is now seen as

a superfluous or abnormal behaviour. Reser (2011) conceptualises hoarding and collecting within Asperger's Syndrome as a misapplication of an innate human tendency. Murrie, Warren, Kristiansson and Dietz (2002) suggests that the Asperger sufferer may have a passion for collecting like normative collectors, however the social and cognitive impairments associated with the disorder could lead the person to excessive collecting and perhaps ritualistically collect offensive and even illegal material, such as excrement and indecent images of children. Mahoney (2009) and Murrie et al. (2002) note that a utilitarian thinking style, social impairments, little interest and pleasure in people, reduction in shared interests and the lack of understanding of social norms, may have social, relational and legal implication for some Asperger sufferers who collect.

Hoarding versus Collecting.

Nordsletten and Mataix-Cols (2012) undertook the first review of the literature considering collecting and hoarding, and Nordsletten et al. (2013) completed the first empirical study comparing hoarders and collectors. Nordsletten and Mataix-Cols (2012) suggest that collecting is on a continuum and these two papers are formative attempts at trying to clarify the diagnostic line between normative collecting and pathological collecting (see summary in Table 1).

Nordsletten and Mataix-Cols (2012) suggest that the onset of collecting occurs in both hoarders and collectors in childhood, with the majority of collectors withdrawing from collecting as they move into adulthood, but for hoarders collecting increases overtime and becomes chronic causing impairment. Nordsletten and Mataix-Cols (2012) cite an estimated prevalence rate for hoarding disorder at 2-5% of the population, in comparison to a prevalence rates for normative collecting at 70% of children, dropping to 30% in adulthood and then 15% in older adults. Pearce's (1998) findings would suggest the course of normative collecting is bi-modal rather than linear, finding a peak in childhood and another in older adults, i.e., over 55years.

 Table 1: Comparison of Collectors and Hoarders (adapted from Nordsletten and Mataix-Cols 2012)

	Collecting Descriptors	Normative Collecting	Hoarding
Onset/course	-	Childhood; intermittent course,	Childhood; chronic course,

		decreases with each decade in life	increases with each decade in life
Prevalence	-	70% children, 30% adults, 15%, older adults	2 to 5% of adults
Meaning of object	Function of collectible	Symbolic, sentimental. function of secondary concern	Utilitarian and sentimental. Instrumental value of primary concern
Source of value	Function of collectible and collection	Individual and interrelated. Objects individually valued and valued in relation to other objects	Each object is valued independently from other hoarded items
Object content	Nature of collection	Very focused; objects bound by cohesive themes. Few different categories of object	Less focused; objects lack a cohesive theme. Large numbers of different categories or objects
Use of object	Function of collectibles	Common;30% of collectors actively use their collected items	Rare; objects acquired with the intension of use. However, studies have shown that hoarders rarely use their items
Acquisition process	Collecting Process	Multiple stages; including planning, hunting and organisation and display in post- acquisition	Planning and organisation not present
Excessive acquisition	Collecting Process	Objects actively acquired in a purposeful goal driven manner. Excessive acquisition possible	Objects actively and passively acquired. Excessive acquisition present in the majority (75%)
Reason for accumulation	Function of collecting	Hobby/leisure, set completion and public identity	Control and safety
Level of organisation	Collecting Process	High; rooms function and collected items confined to restricted area	Low; functionality of rooms compromised by disorganised clutter
Distress	Function of Collecting	Not present in majority. Not a product of clutter	Present in the majority. Clutter a key factor
Social impairment	Function of Collecting	Minimal; collectors show marriage rate in line with national norms and frequencies. Integration of collecting with social life	Severe; hoarding is associated with reduced rates of marriage increased rates of relationship conflict and in some cases, social withdrawal

Nordsletten and Mataix-Cols (2012) address the differences between collectors and hoarders through the lens of hoarding disorder, which probably belies their intent on clarifying the diagnostic boundary. Whilst this provides a systematic approach to the empirical question are hoarders different from collectors, it is a concern that psychopathological language is being applied to a normative behaviour and it also means that knowledge about normative collecting behaviour and the uniqueness of normative collecting is not adequately considered, such as collection management, refinement of collector, and collection and collector evolution. Translating Nordsletten and Mataix-Cols' (2012) ideas about differences into the language of collecting developed within this thesis, it could be suggested that there are differences between hoarders and collectors in regards to the nature of the collectibles and collections, the function of the collectible and collection, and the processes involved in obtaining collectibles and developing an accumulation of objects.

Nature, function and process: normative collector vs hoarder.

Understanding the nature of collectibles is in its infancy, although it would seem that there may be some differences with hoarders more likely to collect items which are unusual or worthless, such as clothing rags, trash, bills and notes (Frost & Shows, 1993; Frost, Kim, Morris, Bloss, Murray-Close & Steketee, 1998; Nordsletten et al., 2013). Hoarding research has also found that hoarders may collect bizarre or niche items, like faeces, urine, hair or rotten food (Pertusa et al., 2008). Normative collectors can also be quite specialist e.g. Coca-Cola memorabilia (Slater 2001) but the collectible objects often have some monetary value and/or social capital.

The nature of the collection is thought to differ between hoarders and collectors. Nordsletten and Mataix-Cols (2012) propose that the relationship between objects in the collection is logical and cohesive for normative collectors, with an apparent anchoring point providing focus or specialism. Nordsletten and Mataix-Cols (2012) suggest a hoard is often large, disorganised, diversity of objects with no apparent relationship linking accumulated objects, whereas a collection is usually contained within available space meaning the size could vary greatly depending on the situation of the owner. Whilst this idea of the normative collection being organised may be true relative to a hoard, but it is not supported by the collecting literature evident in the lack of interest in organisation (Pearce, 1998) and the eclecticism of the Renaissance period and commentary on collections noted in (Elsner & Cardinal, 1997; Nicholson, 2006; Sheldon and Howitt, 2007). Additionally it seems that a hoard is often observable due to the excessive clutter, whereas access to collections can be managed by the owner so that they are available for public display, invite only or concealed for personal use (Johnson, 2014; Krone, 2004).

Collecting is thought to be a continual process for both groups, with the primary difference according to Nordsletten and Mataix-Cols (2012) being that collectors are more methodical in their collecting process and the evolution of the collector may follow the steps outlined in McIntosh and Schmeichel's (2004) model of collecting. The more considered approach of the collector means that searching, acquiring and discarding items is thought more deliberate and goal driven, whereas the hoarder actively seeks as well as passively acquires, often free things, and accumulates these without thought of discarding and space to contain (Nordsletten & Mataix-Cols 2012). Collecting research supports the idea that many normative collectors deliberately pursue desired objects, and that the collecting process

evolves over time as the collector becomes more refined in their knowledge and tastes (Belk, 1995; Pearce, 1998; Taylor & Quayle, 2003).

The function of the collectible and the collections seems to vary considerably between collectors and hoarders. Nordsletten and Mataix-Cols (2012) suggest that the collectible appears to have a personal meaning to the collector in terms of symbolising a past experience or some sense of emotional connection, whereas for the hoarder there appears to be a hypersentimentally attached to even the most worthless of objects and more of a need to have the object without any real insight (Frost & Steketee, 2014; Steketee et al., 2003). The importance of collectibles in terms of personal meaning or memorialising past experiences, seems apparent in the narrative of collectors (Muensterberger 2004) but has not been rated as important in collecting studies and surveys (Nordsletten et al., 2013; Pearce, 1993). This apparent inconsistency may reflect the very unique personal mean-making of collectors which may get missed by generic survey questions or it may also reveal a lack of understanding on the behalf of the collector, which subsequently gets developed through dialogue with another or through interpretation by the researcher looking in.

Nordsletten and Mataix-Cols (2012) account of the function of the collectible is complex, suggesting that the hoarders appear to express more desire to have an object because of its intended function but then rarely use it, whereas the collector seems to see the function as secondary to the emotional attachment, personal meaning and/or aesthetic of the object but then reports greater use of the object once they own it. The function of the collection has not been really considered in the Nordsletten and Mataix-Cols (2012) paper beyond suggesting that the collection has an intrinsic value to the owner, but does not specify what this may be nor do they consider the collection management issues which are reflected in McIntosh and Schmeichel's (2004) model as cataloguing, ordering and stage 8 which is seems to be about refinement and development. Again the function of normative collecting is not explored in any depth, with possible reasons for accumulation being pleasure, public identity and social connectedness for the collectors, whereas the hoard seems to serve more personal psychological needs for the hoarder, giving a sense of safety, control, emotional regulation whilst causing further social isolation.

A review of existing literature relating to the function of normative collecting appears to suggest that it can serve multi-functions to the individual, and the desire to collect may be

internally and/or externally driven. The function of the collectible, collecting and the collection may change overtime, as the collector builds expertise and refines their knowledge. Improvements in psychological well-being, personal rewards from collecting, collectibles and having a collection, and opportunities to be part of collecting communities, and to build and develop fulfilling social relationships are all positive reinforcers which appear to perpetuate collecting behaviour. Opportunities to build expertise, social status and be part of elite connoisseur clubs, also seem to be important motivators for some collectors, along with the opportunity to gain financially from owning, trading, displaying and selling collectibles. Negative reinforcers have also been suggested, in particular collecting and collectibles help reduce anxiety and emotional distress, and having a collection may increase a sense of personal control and safety.

Conclusion

Overall, research suggests that collecting is an historical phenomenon which has continued into modern times. Within its historical domain collecting had been given meanings of domination, sanctity and knowledge, which were pursued by the powerful and the noble with an overall meaning of prestige for the nation, church or powerful individual. Later, collecting became more about the pleasure of acquisition and ownership and gaining knowledge within specialisms where the collection spoke about self rather than the wider world. Although historically, mainly a patriarchal pursuit, today collecting appears to have become an endeavour of both genders, with some research suggesting that some collectibles may be more sex-specific and reflect stereotypical gender roles (Martin 1999). The function of collectibles and collections may also differ for men and women, with some arguing that the aesthetics are important for female collectors and the function of the object is more important for male collectors.

Within the contemporary context of collecting there is a dearth of empirical research that considers collecting, the behaviour within it and the processes involved. Researchers debate what constitutes a collection, with some arguing that the most important aspect is that the items are related and original function negated, while others agree a collection is defined in terms of the relationship between objects. Researchers have also theorised that what is being collected is only relative to the collector, in that the collector imbues personal experiential meaning into objects which make them valuable and important to them. Although research

sees collecting behaviour as internally driven, marketing theorist highlight how collecting behaviour could be driven externally with clever marketing strategies encouraging investment in manufactured collectibles.

Collecting is generally accepted as normative behaviour, and possibly a rite of passage during childhood, supporting development of social skills, autonomy and goals directed behaviour. Collecting for some could also be driven by mental health issues, such as, childhood trauma, pathological hoarding, Alzheimers or developmental disorders involving ritualistic collecting behaviours, such as Asperger's Syndrome or Prader–Willi Syndrome. To date the diagnostic boundaries between hoarding and collecting have not be clearly explicated, and Nordsletten and Mataix-Cols (2012) warn that normative collecting and hoarding share some similar characteristics, and it is important to clarify that a person's collecting is not driven by psychopathology.

A psychological model for collecting developed by McIntosh and Schmeichel (2004) suggests collecting behaviour involves a process of steps, detailing pre-acquisition, acquisition and post-acquisition stages. To my knowledge McIntosh and Schmeichel's model has not been used to explore "normative" collecting behaviour, despite offering a useful benchmark from which to examine this often ignored, yet common human activity. Survey research suggests that collectors are mainly interested in the acquisition of objects "just because they like them", however narrative analysis and interviews highlight the integral interplay between the collector and his/her collectibles and collection, and personal meanmaking imbued upon and drawn from the object.

Belonging to a collecting community of like-minded others is thought to be fundamental to normative collectors, as it validates, normalises and offers opportunity for personal and social elevation. Although social connection may not be sought out by everyone, particularly hoarders, those that find it important may use collecting communities as a place to swap, trade and enhance the value of items. Community involvement may offer the collector the opportunity to become an expert within their chosen field and enrich the community with higher levels of understanding about specific objects, helping to raise prestige of their ideal object and therefore prestige of themselves.

Levels of engagement with objects of desire have been reflected upon in regard to different kinds of collectors, such as the connoisseur, non-connoisseur, the hobbyist, the fan, the fanatic, the amateur and the expert. Understanding the potentially different types of collectors offers some understanding about how the nature of collections and collectibles may vary across collectors. The notion of the evolving collection and collector over time suggests for some collectors a honing or refinement process may occur, and this refinement may result in changes in the nature and function of the collectible and collections, e.g., the hobbyist who may start with a large collection of common objects over time through gaining knowledge and research comes to identify the rare and more sought after items within his collecting genre resulting a small honed collection with the common objects discarded or swapped. The concept of honing and refinement would be an addition to McIntosh and Schmeichel's collecting model, and remains to be empirically examined.

Finally, normative collecting is poorly understood and has been the subject of surprisingly little scholarly work and even less empirical research. The nature of the collectible, the collector and the collection requires further study, particularly using the systematic research methods associated with psychology. The relationship between the key variables, i.e., the collectible, the collector and the collection also need elucidation, as does the function of collecting behaviour and the processes by which the collector obtains collectibles and maintains their collections. This thesis is specifically examining the collecting-offending hypothesis associated with offending involving indecent images of children (IIOC). One of the reasons for reviewing the collecting literature was to identify what we know about collecting, more specifically knowledge about image collectors or pornography collectors who may act as a reference group for contrasting the behaviour of illegal image gathering and accumulating undertaken by IIOC. Unfortunately this review of the collecting research revealed that no such empirical image collector studies have been undertaken, however the review has helped define core collecting terminology, that is the collectible, the collection and the collector, in relation to core elements of nature, function and process. This collecting frame will be used to analysis the IIOC literature in the subsequent chapter. This review also confirms the need for image collecting studies, and the first study in this thesis will examine the experiences of image collectors using the knowledge gained from this review to develop an interview schedule which examines the nature, function and processes involved in normative image collecting. It is hoped that this study will not only extend knowledge about collecting behaviour but help hypothesis testing in regards to the collecting-offending hypothesis which is the focus of this thesis.

CHAPTER 2

Nature, Function and Process of Gathering and Accumulating Indecent Images of Children (IIOC)

Background

The accumulations of indecent images of children found in the possession of some Internet sex offenders has been associated with collecting behaviour (Lanning, 2010; Shelton & Howitt, 2007), yet recent reviews by Prat and Jonas (2013) and Henshaw, Ogloff and Clough (2015) clearly show that the collecting aspect of IIOC offending has rarely been explored. An apparent lack of interest is surprising as collecting behaviour is a differentiating component in Internet sex offender treatment - I-SOTP (Middleton, 2008), incorporated within sentencing guidelines for IIOC offences, clearly commented upon in early Internet sex offender studies (Taylor & Quayle, 2003), and is a fundamental component of Internet sex offender typologies, such as Lanning (1992) and Krone (2004).

Chapter one of this thesis is a seminal attempt at synthesizing collecting theory and existing IIOC research, and chapter two will attempt to systematically apply this knowledge of collecting to the phenomenon of sexual offending which involves gathering and accumulating indecent images of children (IIOC). To start, the key collecting units and the sexual offender sample of interest will be defined, and it will be laid out how it is proposed to integrate the literature in these two disparate areas. Then the UK legal context and the aspects of collecting behaviour embedded in this legislation will be outlined, as will a critical analysis of the measurement of IIOC offending. Through the lens of collecting theory, the nature of indecent images gathered, the nature of accumulations/collections and the people who possess these images will be examined, along with a thorough analysis of our existing knowledge about the function and processes of gathering and accumulating IIOC. Finally, conclusions will be drawn about what is currently known about a potential collecting aspect within IIOC offending behaviour, and from this a research plan developed.

Conclusions drawn from the review of collecting theory and empirical studies in chapter one suggested three core collecting units, named the collectible, collection and collector. The collectible refers to the individual object desired and acquired. The collection is the

accumulation of acquired objects of which the relationship between the objects may be explicitly obvious, such as a set, or implicitly derived by the owner through their own subjective processes. A collection may also be primary and secondary, for example the classic car collector's primary interest may be E-Type Jaguars from the 1960s but they may also have secondary collections that relate, such as fuel pumps, advertising and other classic cars which are not Jaguars. The collector is the person who owns the collectible and collection, and prior research suggest that collectors are not homogeneous and often engage in genre specific collecting e.g. classic cars only, and then specialise within collecting genres e.g. 1960s E-Type Jaguars. Gender specific collecting have also been identified, with males and females favouring particular items, but as yet potential differences in collecting behaviour by age and ethnicity has yet to be empirically studied.

The review of the collecting literature in chapter one also identified three core elements of collecting behaviour, these were termed nature, function and process. Nature refers to qualities and characteristics of the collectible, collection and the collector. For example, the nature of the image collectible is what is depicted on it or the content within an image, the nature of the collection refers to themes in the content of collectibles and quantity. The nature of the collector considers personal and psychological characteristics of the person who owns the collection, e.g. personality, age, gender, and so on. So in understanding the IIOC offender it is important to consider the nature of the images gathered, nature of the accumulations/collection as well as the individual characteristics of the offender.

Function refers to what the collector derives from the collectible and collection, and prior collecting theory and research, such as, Durost (1932), Belk (1995) and Pearce (1993) would suggest that understanding the offender's personal ideas about the nature of the objects and relationships between them may provide valuable insights into their inner world and motivations for acquiring indecent images of children. Function also refers to what the person derives individually and collectively from the objects, and prior collecting research suggests the collectible and collection may serve multiple functions to a collector, this may be financial as well as psychosocial benefits (Carey, 2008; Formanek, 1991). There is currently debate amongst collecting theorists as to whether using the object for its original function negates its status as a collectible, however it is contended within this thesis that there are likely to be collectors who gather objects for ownership only and there are those who collect and also use the objects for their intended purpose e.g. accumulate vast quantities of

illegal images and may masturbate to these images. Where the line is between healthy ("normative") collecting, and a behaviour which is pathological or driven by mental disorder has only recently been considered in Nordsletten and Mataix-Cols (2012) boundary refinement paper. The current expert opinion is that hoarding and collecting are likely to be maintained by quite different biopsychosocial mechanisms, however there is a substantial grey area where it is currently difficult to differentiate between healthy and unhealthy collecting behaviour (Nordsletten et al., 2013). The existing collecting literature suggest that if there is a collecting aspect to IIOC offending then gathering and accumulating objects will serve multiple-functions to the individual, and there is a potential that some IIOC behaviour associated with gathering and accumulating indecent images may be underpinned by psychopathology e.g. hoarding disorder. Given the recent changes in the sentencing guidelines, it is imperative that we examine whether pathological collecting is associated with IIOC offending to ensure ethical and proportionate legal decision-making as well as relevant assessment and rehabilitation services.

How collectors go about collecting has rarely been examined. McIntosh and Schmeichel (2004) offered a psychological model of collecting which has high face validity, but there are doubts about the sequential steps in the cyclical model and this theoretical idea is untested. McIntosh and Schmeichel (2004) propose an eight step self-reinforcing cycle of collecting, which includes pre-acquisition behaviours, behaviours linked to acquiring an object and post-acquisition behaviours linked to use of the object and/or management of the object. McIntosh and Schmeichel's ideas on the process of gathering, using, accumulating and managing collections can be seen in the behaviour of collectors reported in anecdotal and historical case studies (Muensterberger, 1994) and survey studies (Pearce, 1998), and whether this collecting model relates to IIOC offending remains to be examined.

In summary, it is contended within this thesis that to examine the hypothesis that collecting behaviour may relate to sex offending associated with gathering indecent images of children, the collecting units of the collectible, collection and collector must be considered, as well as the core collecting elements of nature, function and process. Whilst it would be morally questionable to see these sex offenders purely as collectors or illegal image collectors, for the purpose of examining the hypothesis that there may be a collecting aspect associated with IIOC sex offending, the collector is conceived as the person who gathers and accumulates

erotic images of children and indecent images of children, hereby referred to as the IIOC offender. For the sake of this review, the "collectible" is conceived as the images of children erotica (IOCE) and indecent image of a child or children (IIOC) or in the American literature referred to as child pornography. In this thesis, the term indecent image of a child/children (IIOC) will be used wherever possible as it reflects UK legislation. The term child pornography also potentially legitimizes the sexualisation and abuse of children by attaching a word associated with legitimate explicit sexual material. Use of the term pornography may also encourage minimization of the seriousness of these IIOC offences by normalising through the use of seeing these images as anything other than indecent or abusive. The "collection" refers to the content and quantity of the images of child erotica and IIOC and the explicit and subjective relationships between individual images in the accumulation. The nature, function and process in regards to the collectible, collection and collector will be examined when reviewing the existing IIOC offender literature.

Introduction to IIOC Offending

"Cyber-enabled" (McGuire & Dowling, 2013) sexual offending against children has generated significant academic interest over the past three decades, with legal developments and improvements in crime recording enhancing our ability to grasp the extent, nature, processes and function of cyber-sex crimes involving children and young people. Cyberbased sexual activity may include a diversity of potentially offensive behaviours, from sexting (Walsh, Wolak & Finkelhor, 2013), sharing explicit self-generated images (Bryce, 2010; Child Exploitation and Internet Protection - CEOP, 2013) to more serious illegal sexual behaviours. Durkin (1997) proposes that there are four ways in which people with a sexual interest in children may misuse the Internet that is to traffic child pornography, to locate children to molest, to engage in inappropriate sexual communication and to communicate with other paedophiles (p. 106). Davidson (2007, p. 23) simplifies Durkin's assumptions suggesting three broad categories linked to use of the Internet, (1) to "groom" children for the purposes of sexual abuse, (2) to produce and/or download indecent images of children and (3) to produce, distribute and possess extreme pornographic material depicting the violent sexual abuse of children and adults. McGuire and Dowling (2013) offer the most parsimonious account, noting two kinds of sexual offending against children which make use of digital technologies. Firstly, online grooming to facilitate either online or offline sexual contact with minors, and secondly the production, distribution, possession or social networking associated with indecent images of children (IIOC). It is this second group of sex offenders who have indecent images of children (IIOC offenders) who are the pertinent group of interest in regards to this thesis, in particular the group whose primary interest is for child erotica and indecent images and not a secondary interest where IIOC are used to facilitate grooming and contact sex offences. From here forward those involved in the production, distribution and possession of indecent images of a child or children (IIOC), are referred to as IIOC offenders and where it is possible to discern no contact offences or grooming behaviour they are referred to as IIOC only offenders.

UK Legal Statutes for IIOC Offending

Examination of legal statutes helps clarify the nature of indecent images of children ("collectibles") and how accumulations of IIOC ('collection') are perceived by UK courts when dealing with individuals suspected of producing, distributing and possessing indecent images of children ("collectors"). Contextualising IIOC offenders in a legal context will also help delineate the boundaries between images of children considered legal but may be used for sexual purposes (images of child erotica) or illegal (IIOC), and how legal responsibility for possessing, distributing and producing indecent images of children is dispensed.

The statutory basis for the offences linked to possession, distribution and production of indecent images of children is covered under a range of legal statutes in England and Wales. Section 1 of the Protection of Children Act (PCA, 1978) covers a wide range of offences linked to indecent images, and states that it is an offence for a person to deliberately and/or knowingly "take, or permit to be taken, or to make, any indecent photograph or pseudo-photograph of a child, or to distribute or show such indecent photographs or pseudo-photographs, or have in his possession such indecent photographs or pseudo-photographs, with a view to their being distributed or shown by himself or others, or to publish or cause to be published any advertisement likely to be understood as conveying that the advertiser distributes or shows such indecent photographs or pseudo-photographs, or intends to do so" (PCA 1978). The Criminal Justice Act (1988) clarifies possession of indecent images and what it is means to deliberately and knowingly have an indecent image. Section 160 states 'it is an offence for a person to have any indecent photograph or pseudo-photograph of a child in his possession, and clarifies where a person is charged with possession of an indecent image it shall be a defence if he had a legitimate reason for having the image, had not seen the

photograph, did not know it to be indecent or it had been sent without any prior request and he did not keep it for an unreasonable time'. Part 7 of the Criminal Justice and Public Order Act (1994) clarifies the meaning of a "pseudo-photograph" as "an image, whether made by computer-graphics or otherwise, which appears to be a photograph ... if the impression conveyed by a pseudo-photograph is that the person shown is a child ... where the predominant impression conveyed is that the person shown is a child notwithstanding that some of the physical characteristics shown are those of an adult". If the indecent images of children involve drawings, tracings, sound and text-based stories, the Obscene Publication Act 1959 can be used to prosecute these types of offences. Pseudoimages have been explained as serving the function of avoiding prosecutions as the legality is more difficult to discern. An alternative perspective based on collecting theory is that pseudo-images may provide a unique insight into the owners subjective ideal or specialist interest, that is the offender cannot find images that meets their unique requirements therefore they create their own or get someone else to do this for them. Other relevant statutes are Section 63 of the Criminal Justice and Immigration Act (2008) linked to possession of extreme pornographic images, and Section 62 of the Coroners and Justice Act 2009 which provides for possession of prohibited images of children. Offences relating to conduct and contact with children are contained within the Sexual Offences Act (2003) and also covers offences which involve use of the Internet as a vehicle of communication, such as arranging or facilitating the commission of a child sex offence (Section 14), and the offence of "grooming" a child (Section 15).

In April 2014, the UK Sentencing Guidelines Council updated their definition of indecent images of children into three categories, an ABC scale. Category A refers to penetrative sexual activity and/or images involving sexual activity with an animal or sadism. Category B refers to images involving non-penetrative sexual activity and Category C includes all those images that would not fit within Category A or B descriptions. In the U.S. where a great deal of the Internet sex offender research emanates, offences involving indecent images of children are often dealt with under federal law linked to "Possession of child pornography". Child pornography (CP) is defined as a "visual depiction ... of sexually explicit conduct involving a child and sexually explicit includes acts such as intercourse, bestiality, and masturbation, as well as lascivious exhibition of the genitals or pubic area" (18 USCS 2256).

As explained previously indecent images of children (IIOC) is the preferred term in this thesis.

Recorded crime statistics provide some insight into how legal statutes have been used in England and Wales, and the frequency of these types of IIOC offences and the number of IIOC offenders involved in the UK. However, the official statistics have well documented measurement problems, and therefore they are used with the caveat that these figures are a guide rather than being seen as a true and accurate account of actual IIOC offending rates (Her Majesty's Inspectorate of Constabulary-HMIC 2012; Office of National Statistics-ONS 2015). Specific methodological issues in regard to the official recording of 'cyber-sex crime' are outlined in McGuire and Dowling (2013). In summary, Police Services in England and Wales generally record offences in terms of how they are set out in law and do not discretely identify whether the medium used to commit the sex offence was online or offline. The Office of National Statistics "Discussion on the Coverage of Crime" (January 2014) also highlights that "sexual offences committed on-line would be hidden within the relevant offence category and would not be distinguishable from crimes committed off-line" (p. 4). Another example of measurement issues is that use of the term Obscene Publication in Home Office statistics is a recording category rather than actual use of the similarly named Obscene Publication Act (1959) which would be used by the police. Whilst the Obscene Publication recording category can include offences relating to the possession, distribution and production of indecent images or pseudo-images of children, it can also include other offences not related to children or sexual offending e.g. extreme adult violent pornography (McGuire & Dowling, 2013, p. 14).

The unit of measurement also varies between official statistic sources, with Crown Prosecution Service (CPS) recording number of charges and Home Office/Ministry of Justice (MoJ) recording number of people charged or convicted. For instance, CPS charge data is calculated on the number of recorded charges and not by the number of offenders charged, therefore an offender may have multiple charges and a great many of these charges may be dropped or combined in subsequent court appearances, therefore reliance on this CPS data could result in an over-estimation of the frequency of IIOC offending. For instance, in 2012/2013 the CPS recorded 15,187 charges of making, distributing, showing and advertising indecent images of children (Protection of Children Act, 1978) and 3,849 charges of possession of an indecent photograph of a child (Criminal Justice Act, 1988).

Another problem with Police data is that Home Office Counting Rules mean the police service in England and Wales only record the most serious offence, this is problematic as there is often crossover between offenders in terms of those with indecent image offences and contact sex offences (Finkelhor, Wolak & Mitchell, 2013b; Henshaw et al., 2015). Whilst crossover is common, research also indicates that there are some specialist Internet sex offenders who may never go on to commit contact offences and are confined purely to a specific type of online sex offence e.g. possession of indecent images only (Carr, 2004; CEOP, 2013; Wolak, Finkelhor & Mitchell, 2012a). Being able to identify crossover offenders from IIOC only offenders is an important distinction, particularly for this thesis, but it is one which is not possible to make using official statistics.

Table 2 provides an overview of the frequency of use of IIOC legal statutes and IIOC offences as recorded when someone receives an IIOC charge and it reaches a magistrate's court hearing (1st Magistrate Appearance) and then MoJ data recording individuals whose IIOC cases where proceeded against and number of individuals found guilty of IIOC offences. This table also clearly demonstrates how different crime reporting rules at points in the criminal justice system result in quite different official statistics being reported, and therefore differing conclusions could be made as to how many IIOC offenders are operating in the UK.

Table 2 shows CPS data for charges in regard to IIOC offences, for charges reaching a first magistrate's court hearing (1st Magistrate Appearance) and MOJ data recording individual cases proceeded against and number of individuals found guilty of IIOC offences.

Table 2: Frequency of use of IIOC Legal statutes and IIOC offences

LEGAL STATUTE		2006	2007	2008	2009	2010	2011	2012
Coroners & Justice Act 2009 Ss62 (1,2): Possession of a prohibited image of child	1 st Magistrate Appearance	-	-	-	-	21	179	394
Criminal Justice Act 1988 S160 (1,2A & 3): Possession of an indecent photograph of a child	1 st Magistrate Appearance	2768	3079	4241	4117	4543	3885	3849
	Proceeded Against	162	185	240	235	292	200	232
	Found Guilty	162	184	227	222	165	246	247

Protection of Children Act 1978 S1(1)a & 6								
Making an indecent photograph of a child.	1 st Magistrate Appearance	10761	11209	13824	13975	16289	15226	14033
Distributing an indecent photograph of a child.	1 st Magistrate Appearance	714	700	949	824	684	743	836
Showing indecent photographs of a child.	1 st Magistrate Appearance	501	362	269	137	424	341	317
Advertisement suggests distribution or shows indecent photographs of children.	1 st Magistrate Appearance	5	19	16	2	3	1	1
TOTAL	1 st Magistrate Appearance	11981	12290	15058	14938	17400	16311	15187
PCA 1978: Making,	Proceeded Against	937	888	1136	1240	1501	1524	1466
distributing, showing and advertising an indecent photograph of a child.	Found Guilty	768	782	958	1024	1246	1283	1315

Table 2 shows the difference in recorded statistics between charges for individual IIOC offences (1st magistrate appearance) and the number of individuals convicted. Using Magistrate's first appearance statistics to consider the question of how prevalent is IIOC offending, would result in quite different conclusions as the magistrate court statistics are typically 10 times higher than MoJ statistics which record the number of individuals whose charges are proceeded against and the number of individuals found guilty. It is difficult to tell if this reduction in recorded statistics between Magistrate's first appearance and decisions to prosecute is a consequence of attrition (cases not proceeded with) or that individual IIOC offenders' have multiple charges, and in reality, it is probably a combination causing the lowering of figures alongside the differences in recording rules noted above. Table 2 shows that CPS approval to proceed with charges is similar to the statistics reported for individuals found guilty, therefore there is a high probability that if the CPS decision is to prosecute that this will end in an IIOC conviction.

Table 2 indicates, with the exception of 2010, there have been year on year increases in the number of charges and convictions for offences involving indecent images of children, peaking in 2012 with 1562 individuals being found guilty for offences involving indecent images. Table 2 reveals that most offences involving indecent images of children are tried

under the Protection of Children Act (PCA, 1978) and Criminal Justice Act (1988). Under both these acts the prosecution have to prove the person deliberately and/or knowingly obtained indecent images of children, and this can be tricky as "not knowing" is a common defence offered by alleged perpetrators. If the defendant had not seen the photographs and did not know or have cause to believe them to be indecent this would be suggestive of not deliberately or knowingly obtaining indecent images. Atkins v DPP and latterly the case of R. v. Porter (Ross Warwick) [2006] 2 Cr. App.R. 25, CA, clarified that an indecent image will only be in the possession of the defendant if he had "custody or control of the image at that time. If at the time of possession, the image is beyond his/her control, then...he/she will not possess it". Determining 'custody and control' in terms of digital images, can become complicated and the level of the defendant's computer skills can bear relevance to this legal question. For example, placing a deleted file in the recycle bin would not remove the indecent image from the hard drive and someone with advanced IT skills could still access it. Another area of ambiguity is "Internet Cache" which can include files downloaded in bulk and/or may include automated downloads from websites. Forensic computer analysts experts Sytech (n.d.) write in their "Issues of Indecent Image Classification, that "accessing the Internet Cache folder would show knowledge of the 'cache' process (if not the image), images stored in a cache will have a creation, modification and last access date, accessing images will update the 'last access date' and will display knowledge of the images and therefore possession could be established". Additionally if someone incidentally acquires an indecent image the length of time from knowing to permanent deletion is an important factor, as immediate removal would be suggestive of less volitional behaviour. In effect having an accumulation of IIOC, especially if it was ordered and catalogued would be considered evidence of intent to possess the IIOC.

Table 2 suggests making (downloading to your computer) an indecent image of a child is the most common IIOC charge in England and Wales, peaking at 16289 charges in 2010-2011. According to current legal understanding the act of 'making' any indecent image could encompass any access of indecent images with a computer, regardless of the intent to save to a hard drive. For example, the appeal cases of R v Graham Westgarth Smith; Jayson (2002) 1 Cr.App.R. 13, CA, clarified that as long as the person knows they are accessing an indecent image of a child, that downloading an indecent image that was capable of being converted into a photograph onto a screen or opening an email attachment is an act of making that image.

For the purposes of the Section 1 of PCA (1978), to distribute or show indecent photographs or pseudo-photographs relates to when a person "parts with possession of it to, or exposes or offers it for acquisition by another person". More recent rulings have added that providing another person with a password to enable him to access pornographic data stored on a computer also constitutes distributing or showing indecent images (Fellows and Arnold [1997] 1 Cr App R 244). Table 2 reveals no discernible pattern in regards to these offences, and on average there are about 1000 charges per year in England and Wales linked to showing and distributing indecent images of children. Provision for advertisement in the PCA 1978 act considers those selling indecent images, as well as those indirectly responsible for platforms where indecent images are being shown or advertised for sale, such as Internet Service Providers and Facebook. This part of the PCA act represents a minute proportion of total charges which peaked in 2007-08 with 19 charges and has reduced to only one charge per year in England and Wales in 2011-12 and 2012-13. Official statistics suggest that possessing images is the most common offence, with dealers in IIOC much more uncommon or at least more difficult to detect and convict. A review of the use of PCA legal statute suggests there are different roles in IIOC offending, but it is difficult to ascertain from official statistics if IIOC offenders are involved in all roles, such as possessing, making, distributing and advertising, or only one or two components.

Wolak et al. (2012a) found similar trends in the US as arrests for possession of indecent images increased from 2006-2009 by about 50% from 1713 to 4901 arrests. Wolak, Finkelhor and Mitchell (2012b) also found "arrests for crimes involving CP production more than quadrupled between 2000 and 2009; the growth is largely attributable to cases of "youth-produced sexual images solicited from minors by adult offenders". Differences in youth- and adult- produced images were noted, where an adult produced the indecent image they were more likely to be a family member, depict younger children (under 12s), be perpetrated by offenders who already possessed indecent images downloaded from the Internet and more than half of CP producers arrested in 2009 had committed contact sexual offences (Wolak et al., 2012b). Interested third parties, such as, the Child Exploitation and Internet Protection centre (CEOP) and the Internet Watch Foundation (IWF) report similar trends, although the numbers of people involved and incidences of IIOC offending reported by these groups are typically much higher than official statistics from the same period. CEOP (2013) proposed a 30% increase in the number of offenders producing IIOC, and estimated that 50,000

individuals within the UK are involved in downloading and sharing indecent images of children. Trend analysis by COEP (2012b) regarding the nature of IIOC also suggested images were depicting younger children and were becoming more extreme, sadistic and violent. The Internet Watch Foundation (2012) also found an increase in the number of "child sex abuse images showing children under the age of 10 ... from 74% in 2011 to 81% in 2012" (p. 11). One major concern with statistics from organisations like CEOP and IWF is that it is difficult to verify the source, quality of the data and how they operationalised the concepts being measured e.g. what constitutes an indecent image and an IIOC offence.

Finally, poor definition of cyber-enabled sex crimes, variations in counting rules across criminal justice services and high attrition rates across different parts of the criminal justice system, all negatively impact on our ability to accurately attest to the extent of the problem and trends in IIOC offending. Consequently, statistics from differing sources and points extracted from the criminal justice process may give very different impressions as to the number IIOC offenders operating. Official statistics also fail to account for unreported offences or crimes committed abroad or pseudo abroad through concealing online location. This "dark figure" of crime is likely to be particularly high when considering cyber-enabled sex crimes such as IIOC offences. The ONS (2015) commented cyber-enabled crime is more complex to measure than conventional crime as it typically crosses geographical boundaries therefore the jurisdiction for legally dealing with crime can be difficult to pin down and there is also considerable international variability in regards to what constitutes an indecent image of a child and willingness to prosecute these offenders this problem is evidence in counties such as Russia were the law has not yet defined child pornography and possessing it is not a criminal offence (Huntley, 2013). To compound the issue of measuring cyber-enabled sex offending, such as the production, distribution, possession or social networking associated with indecent images of children, there are many instances that those involved in IIOC offending use technical means to obscure their illegal activity online (McGuire and Dowling, 2013). CEOP (2012b) suggest that almost one-half of 'hidden' Internet use, for example, through hidden forms of communication such as The Onion Router (ToR) are involved in the proliferation of indecent imagery of children. Empirical research has not confirmed the extent of concealment suggested by CEOP but has confirmed the use of technical methods to avoid detection, such as multiple identities incorporating several IP addresses, proxy servers to give the appearance of being in another country, and illicit images being accessed through 'disguised' websites (Webster, Davidson, Bifulco, Gottschalk, Caretti, & Pham (2012).

However, other studies of convicted offenders suggest that these concealment measures are by no means universal and some offenders who create, store and share indecent imagery take few security precautions (Carr, 2004).

Victimisation surveys and ICT crime detection methods involving tracking the movement of known indecent images provide some insight into this dark figure of IIOC offending. Official statistics suggest approximately 7,000 hard copies of IIOC were thought to be in existence in 1990 (Home Office, 2010), and Carr (2003) after reviewing studies and hard data from UK police operations, such as, Operation Cathedral, speculated this had risen to 41,000 IIOC stored electronically by 1999 (p 11). By 2012, CEOP (2012a) estimated "the number of unique IIOC in circulation on the Internet runs into millions, with police forces reporting seizures of up to 2.5 million images in single collections alone" (p. 4). The problem with these statistics about the number of known IIOC is that the source and image classification types are not discernible which impedes like for like comparisons. The National Juvenile Online Victimisation study (N-JOV) carried out by researchers at the Crimes against Children Research Center have monitored and researched cybersex crime in the U.S. for over a decade. Wolak, Liberatore and Levine (2013) used explicit and robust ICT methods (RoundUp) to observe the sharing of child pornography files previously identified in criminal investigations. Wolak et al. (2013) found during the previous year (2012) that 244,920 U.S. computers shared 120,418 indecent images of children on Gnutella (file sharing and message board), with more than 80% of these computers sharing fewer than 10 such files for short durations (average 10 days) and less than 1% of computers (n = 915) involved in high volume distribution (100 or more files).

Reviewing the legal statute and recorded statistics regarding incidences of IIOC charges and offending, it can be concluded that we cannot say with any degree of confidence as to the total number of IIOC images available to gather (total number of potential collectibles), nor can we firmly conclude as to the total number of IIOC offenders in operation due to measurement problems and the hidden group of IIOC offenders who may be very different from convicted offenders. Possibly, undetected IIOC offenders may be much more security conscious and may have more advanced detection evasion skills which allow them to conceal their identity and accumulations. There are clearly measurement problems associated with IIOC offending, and official statistics from the Ministry of Justice, Crown Prosecution Service, and Police Service can only be considered a guide rather than being seen as a true

and accurate account of actual offending rates. That being said, triangulation of findings from official statistics, victimisation surveys, commentary from interested third parties and data generated from advances in ICT crime detection would increase confidence in the inferences drawn about IIOC offending trends.

Across data collection methods, researchers and locations, possession, distribution and production of indecent images of children is clearly international, with multiple sources suggesting IIOC sex offending is a growing a problem for law enforcement, correctional and rehabilitation services, judicial processes and societies across the world (review Seto, 2012). A proliferation in the availability of indecent images of children in the last 25 years is also evident, with more offenders being caught for possessing and producing indecent images suggestive of an appetite for these images with depictions of younger victims and more extreme and deviant imagery becoming more readily available (Wolak et al., 2013). One can anticipate that this form of child abuse involving IIOC may continue to grow, particularly as the Internet becomes so easily accessible and technological advances permit easy uploading, downloading, searching, sharing, storing and concealment of indecent images of children (Gillespie, 2008). Legal statutes and victimisation surveys highlight that social networking and sharing is part of the offending process for some people interested in IIOC. This need for social connection amongst some IIOC offenders is reminiscent of the patterns of social networking in legal collecting, where specialist events (e.g. auto jumbles) and other social gatherings (e.g. classic car rallies) are organised so that like-minded individuals can meet to share collecting stories, develop new contacts and progress their knowledge in their area of interest. One important difference in regards to social networking in IIOC groups is that meetings are rarely public and online communications are often concealed and part of the 'hidden Internet'. Overall this review of the legal statutes and IIOC offending statistics has not provided solid prevalence information which would help speculation about the entire population of IIOC offenders and this hampers inferences in regards to sampling. These measurement problems should however not stop endeavours to understand IIOC offending as there are clearly a lot of current and potential future victims, and understanding the IIOC offending cycle, of which collecting behaviour may play a part, is essential to support endeavours to stop the abuse of children by continuing to add to the evidence base which underpins primary, secondary and tertiary interventions as well as risk management processes for convicted IIOC offenders.

Nature of Indecent Images of Children (IIOC) or Images of Child Erotica (IOCE)

When considering the illegality of images gathered and accumulated by an alleged perpetrator, the prosecutor needs to prove that the photograph or pseudo-photograph are indecent and illegal. Over the years, classification systems have been developed to support research and the criminal justice system in rating indecent images and the seriousness of their content, however there is variability across time, between countries and even within countries with differing states/regions/provinces using slightly different criteria to define what is proscribed and illegal (International Centre for Missing & Exploited Children, 2010). In the UK there have been three key classification systems used to define the nature of IIOC, which have been refined overtime in line with developing case law. Classification systems for child sex images include COPINE (Combating Paedophile Information Networks in Europe) Scale (Taylor, Holland & Quayle, 2001), Sentencing Advisory Panel scale (SAP scale Sentencing Guidelines Council, 2007) and ABC scale formulated in the Sexual Offences Definitive Guidelines (SODG 2014). How these relate to one another is outlined in table 3.

Table 3: Classification System for Seriousness of Indecent Images of Children

UK CLASSIFICATION SYSTEMS INDECENT IMAGES of CHILDREN						
COPINE SCALE	SAP SCALE	ABC SCALE				
I. Indicative						
II. Nudist						
III. Erotica						
IIII. Posing						
V. Erotic Posing	I Mudity & aratic pacing	C. Other indecent images not falling within categories A or B				
VI. Explicit Erotic Posing	I. Nudity & erotic posing					
VII.Explicit Sexual Activity	II. Sexual Activity – children only	B. Images involving non-				
VIII. Assault	III. Non-penetrative sexual activity adult and child	penetrative sexual activity				
IX. Gross Assault	IIII. Penetrative sexual activity adult and child	A. Penetrative sexual activity and/or images involving sexual				
X. Sadism or Bestiality	V. Sadism and Bestiality	activity with an animal or sadism				

The original COPINE scale established in the 1990s outlined ten distinct levels of indecent images. Levels 1 includes images of children at play, Level 2 includes pictures of nude or semi-nude children, Level 3 involves secretly taken photos of children who are at least seminude and Level 4 includes images of naked children deliberate posed. Level 1-4 images are not necessarily indecent nor illegal to possess, even though IIOC offenders may be using these for personal sexual gratification or to lower the inhibitions of potential victims. Levels 5 and 6 involves images of children which are more erotic and sexual in nature, including depictions of the children's genitals. Level 7 involves sexual activity involving children only, Level 8 is non-penetrative sexual activity between a child and adult, Level 9 involved adults engages in sexual activity and penetrative sexual activity with children and Level 10 includes images of children engaging in sexual activity with animals and children tied up, beaten, whipped or experiencing pain. Whilst the COPINE scale sought to provide a standardised benchmark for police and judiciary to rate image severity, its usefulness as a legal classification system was challenged in the Court of Appeal in the case of R-v-Oliver, Hartrey and Baldwin [2003] Cr App R(S) 15. Subsequently the Sentencing Advisory Panel (SAP 2002) developed the SAP scale, a more parsimonious version of Quayle's and colleagues ten COPINE levels. The SAP Scale dropped COPINE Levels 1-4 as it was difficult to prove indecency and illegality of the image, even though the image maybe have been used in deviant manner by the offender. The SAP scale rated the seriousness of images into five levels which paralleled COPINE levels 5-10. In April 2014 the Sentencing Guidelines Council updated the 2007 and abandoned the SAP scale in favour of a Category A, B and C system outlined in the Sexual Offences Definitive Guidelines 2014 (SODG, 2014), hereby referred to as the ABC scale. Category A in the ABC scale equated with SAP levels 4 and 5, Category B is the same as SAP levels 2 and 3 and Category C includes all those images that would not fit within Category A or B descriptions. In essence, Category C could be equivalent to SAP Level 1 or COPINE Levels 1 to 6. Whilst this classification of the nature of the images is helpful, changes in the system affect our ability to identify longitudinal trends using official statistics. Externally imposed classification systems also negates the findings from collecting theory which emphasis the subjective nature of how someone defines a collectible, to put it another way what an IIOC offender deems desirable enough to motivate further offending.

The prosecution also need to prove that the image or pseudo-image was of a child. On May 2004, the definition of a child was altered from a person under the age of 16 years to one under the age of 18 years by section 45(1) of the Sexual Offences Act (2003). In the U.S. there is some variation in how a child is defined under the Possession of Child Pornography law, but on average it is a year younger than the UK, i.e. age 17 or younger. Direct evidence of the age of a person(s) in a pornographic image can be difficult to determine, particularly when images depict adolescents or the victim is unidentifiable. Empirical work is ongoing to support determination of victim age such as, Quayle and Jones (2011) and Rosenbloom (2013). In contested hearings were inability to determine victim age in an indecent image is a defense, expert testimony is currently inadmissible with legal rulings making it clear that "a jury is as well placed as an expert (e.g. a pediatrician) to assess any argument addressed to the question whether the prosecution had established that the person depicted in the photograph was a child, and in any event expert evidence would be inadmissible: expert evidence is admitted only to assist the court with information which was outside the normal experience and knowledge of the judge or jury" (R v Land [1998] 1 Cr App R 301, CA). The new Sexual Offences Definitive Guidelines in 2014 (SODG, 2014) suggests that the age and/or vulnerability of the child should be given significant weight and is considered an aggravating factor which could lead to upward adjustment of sentence length from the legal starting point. SODG (2014) state that where the actual age of the victim is difficult to determine, sentencers should consider the development of the child in terms of infant, pre-pubescent or post-pubescent. Difficulties associated with determining age, particularly if the victim is never identified, could result in participant biases in convicted IIOC samples as legally it would be easier to convict and justify longer harsher sentences to those with IIOC depicting younger children as opposed to IIOC of teenagers nearing age of consent. This could also result in a potential bias in convicted IIOC samples for paraphilias linked to paedophilia or hebo-paedophilia as the interest would dictate a focused on images of younger children.

Refinement within classification systems allows the judiciary to define with greater accuracy the nature of images, their severity and illegality, as well as providing a system to classify the entire nature of IIOC offenders' accumulations. Whilst a classification process for indecent images is much more developed that those for legal image collectors, the underlying idea is not dissimilar to grading systems for other collectibles, e.g. silver, coins, postcards, such as the Professional Sports Authenticator (PSA who grade card based collectibles). However the

problem with externally derived classifications systems is that it ignores the subjective meaning to the owner, and it is this subjective meaning of the image to the offender which may be most revealing as to their sexual interest and risk of re-offending. For example, seemingly innocuous trophies kept by killers are fundamental in fuelling fantasy and reminiscing on past kills (Schechter & Everitt, 2006) and some contact sex offenders have very specialist sexual interests (e.g. torsos of 10year old boys) which would not necessarily be indecent but fuel fantasy and maybe kidnapping. Criminal Justice System and researchers also hypothesized that classifying the nature of individual images, the genre and sub-genre of IIOC collections (e.g. COPINE 1-4, COPINE 10 only) and size of accumulations would help in the appraisal of sexual deviancy and future risk. When knowledgeable about collecting theory these conclusions seem overly simple, and fail to consider the subjective and dynamic nature of collecting, as well as potential process and function variables which may help us understand IIOC offenders.

Nature of Accumulations/Collections of IIOC

Collections can be quite simple to identify where there is only one clearly themed collection e.g. E-type Jaguars. They can also get quite complicated to determine when the owner does not see it as a collection or the relationships between objects are very idiosyncratic and personally derived (Pearce, 1994). Collectors are also likely to have a primary collection, with possible sub-collections and may be even secondary collections (Martin, 1999). Whilst unusual there can also be multiple primary collections and attached sub-collections.

Lanning (1992) and subsequently O'Donnell and Milner (2007) see the phenomenology of the collection as being important when understanding IIOC offenders. O'Donnell and Milner (2007, p. 88) and Lanning (2010, p. 29) document that collections are important to the IIOC offender, constant, organised, permanent, concealed, shared and IT enabled.

Lanning emphasises the importance and permanency of IIOC collections in an IIOC offenders' life and note substantial time and effort is put in to acquiring and keeping the accumulation of images and that the IIOC offender is unlikely to destroy the collection: "It is his life's work and helps to define who he is" (O'Donnell and Milner, 2007, p. 88). Based on experience from police investigations Lanning (2010) writes that to maintain permanency the IIOC offender "might move, hide, or give his collection to another paedophile if he believes the police are investigating him" or try to regain control of at least the legal IOCE after

release unless denied access to child images as part of his conditions of treatment, probation or parole (p. 29). Healy (1996) also adds that the IIOC are tools of preservation that allow the offender to maintain artefacts that relate solely to the time that the images were taken and thus maintains the permanency of the original arousal preferences of the offender. This idea of permanency is also indicated in how offenders psychically work with their collection as a whole. Even though the collection is of the upmost importance to collectors the continual need for novelty or gaining new objects or items for the collection is also important to the collector (Johnson, 2014). In terms of IIOC accumulators it has been suggested that "No matter how much the paedophile has, he never has enough; and he rarely throws anything away ... If police have evidence that a paedophile had a collection five or ten years ago, chances are he still has the collection now" (Lanning 2010, p. 91). Lanning (2010) suggests collecting is central to an IIOC offenders' life and also eludes to a process in which ownership is important even if the person may no longer be using the IIOC. A 'file and forget phenomena' may also explain large collections when dealing with digital material (McNally, 2010). Other collection management processes characteristic of IIOC offender collections, are organisation, concealment and sharing (Quayle & Taylor, 2003; Lanning, 2010). Whilst collection management is not considered important to all IIOC offenders, there is a trend across police fieldwork papers (Lanning, 2010) and empirical studies (Sheldon & Howitt, 2007) to identify a group of IIOC collections who have maintained, organised, detailed and orderly records. How offenders strike a balance between access for collection management and review, and keeping the IIOC collections secure and concealed has not been considered. Level of privacy and computer access is thought to mediate concealment, along with the severity of the image. Like legal collectors, IIOC offenders with accumulations "frequently have a need or desire to show and tell others about his collection. ... seeking validation for all his efforts [and] to brag about how much time, effort, and skill went into his collection" (p. 29). So access to the collection to show or share with others is also a likely variable in IIOC offender's collection management strategy.

Refinement is a term cognisant with the collecting literature when discussing the nature of collections, however it has not been picked up in IIOC offending terminology. In essence the nature of a collection is considered dynamic, changing with every new addition and decision to discard, and these behaviours of acquisition, keeping and discarding may reveal the dynamic refinement process the owner is going through in determining their specific interests. Even though the specific items in a collection may change overtime, as noted above

there may also be a permanency reflected in the over-arching story the collection is trying to represent to the world. For instance, a timeline of how the collection develops overtime, considering discarding, keeping, renewed interests and usage of objects, would likely provide a unique insight into how the owner's tastes and interests have developed as their knowledges of IIOC has progressed. Quantity of objects in primary and sub-collections is also part of nature, as is how the collection/sub-collections size changes overtime as it may increase and decrease with refinement or oscillate as old interests are renewed or collections discarded as new interests are found. In regards to IIOC offenders' fear of getting caught, may also impact on collection development and management decisions.

The focus of forensic research into the nature of IIOC offenders collections has often focused on the total amount of images (size) accumulated and the number of specific types of images in sub-collections, e.g. number of COPINE level five images. The emphasis on size of collections/sub-collections is reflected in early work into Internet sex offenders written by Lanning (1992) and latterly in qualitative studies by Taylor and Quayle (2003) and Sheldon and Howitt, (2007, p. 106). What constitutes a large, medium or small collection remains ambiguous, there no clear counting rules or process for managing duplicate items when calculating the size of a collection. McPherson (2012) tried to answer the query on size using case law information. She concluded that there is a wide variation in the size of collections of indecent images of children when possessors are detected by the authorities, possession can range between low hundreds to hundreds of thousands to collections numbering almost half a million. McPherson suggested that the judiciary considered 6600 images possessed as very substantial, 638 was considered low and 152 was considered relatively small. She theorised that an offender with a collection of several hundred thousand images may be considered more deviant than an offender with a collection of several dozen images if these images are the same level on the SAP scale. However, whether there is a relationship between collection size and deviancy has not been empirically tested.

Lanning (1992) speculates that size of accumulations could be an important marker in differentiating between categories of sex offenders and propensity to commit contact offences. Based on police fieldwork experience Lanning (1992) postulated the preferential type of child sex offender would be more likely to have larger collections, and the Paedophile Preferential offender may have quite specialist accumulations of IIOC aligned with their deviant interests while the Sexually Indiscriminate Preferential Offender will have a wide

variety of pornographic images that reflect all their sexual interest across the legal-illegal spectrum. This hypothesis has not been confirmed by subsequent research and the general consensus is that Lanning's situational and preferential types are not exclusive (Pratt & Jonas, 2013).

Lanning (1992) speculates that "factors that influence the legal or illegal qualities of paedophile collections include socio-economic status, living arrangements and age". Before the Internet Lanning asserts that the size of the collection was closely associated with the IIOC offender's wealth as child abuse images were very expensive. Wealth and socioeconomic status may now be less important as the Internet has made IIOC widely available and inexpensive (Wolak, Finklehor & Mitchell, 2012). Lanning (1992) also drew a correlation between the size of the collection and the ability of the collector to have privacy, that is those with more privacy would have larger collections either digital or hard copies of Older IIOC offenders were also theorised by Lanning (1992) to have more pornographic material associated with children as they have had greater opportunity to accumulate and build networks which give access to IIOC. There is general agreement with the underlying principles in Lanning's exposition of the nature of IIOC collections, that is opportunity and the Internet enables IIOC offending (Taylor & Quayle, 2003). Some of Lanning's specific hypothesis linked to collection size are in my opinion overly simplified. Collecting theory places less emphasis on age and more on developing expertise, and how collections change in association with becoming expert (Muensterberger, 1994; Pearce, 1998; Strone, 2010). Expertise in collecting may result in a connoisseurship where the collector refines and hones their collection as they get more experienced in the field and become more aware of their preferences, interests, rarity and valuable objects (Strone, 2010). This could mean than instead of large collections, expert IIOC offenders may spend a long time online looking through images and discarding less desired images resulting in a small collection of cherished IIOC. A consequence of overstating the supposed linear relationship between collection size and risk, may mean that those with the smallest yet most specialist collections (experts or connoisseurs) are overlooked and their deviancy underestimated. For instance some experts will probably have gone through a prolonged process of searching, acquiring, refining, discarding and then searching again to get what they desire most - so a small specialist collection may reflect intense involvement with IIOC. Glasgow (2010) also suggests theoretically, that in terms of digital material that deviancy is more to do with the

intense involvement and manipulation of acquired illegal data than just having large quantities of it.

IIOC experts may also be pivotal in driving the market for IIOC, as their desire for new specialist IIOC and willingness to pay for these may prompt further production to satisfy their appetite. Sharing with others details of rare and specialist images but never showing or trading these may prompt others to constantly seek novelty or aspire to get known images which are not currently in their collection Collecting theory also suggests that inexperienced collectors often have large and ill-defined collections as they are curiously exploring their field of interest and working out through experimentation their specific preferences and experientially finding out about rareness and value. There is however a group of collectors, who researchers, such as, Chung, Beverland, Farrelly and Quester (2008) and Redden and Steiner (2000) termed fanatics. Fanatics may never hone their collection as quantity is more important than quality, regardless of length of time collecting. These fanatics may have large and broad collections, which may or may not be organised, and if there are fanatics amongst IIOC offenders the large collection may reflect an interest in all aspects of the collecting genre which may or may not translate into a deviant sexual interest in children. So understanding how the IIOC offenders accumulation of images has changed over-time, level of involvement needed to get them and exploring the motivators for collecting decisions or changes in direction in regards to items pursued may be a more fruitful avenue to understand the offending behaviour and sexual interest of IIOC offenders.

Often IIOC offenders have accumulations of adult pornography and child erotica which is legal to possess. IIOC offenders' accounts as to why they have these images have been interpreted as attempts to normalise and minimise agency when choosing to offend against children (Winder, Gough & Seymour-Smith, 2015). From a collecting perspective, it is plausible that adult pornography is a secondary collection. These secondary collections of adult pornography may be an old interest that was kept but no longer used. Alternatively, secondary collections may occur alongside the primary collection i.e. adult pornography is purchased as a cover to acquire IIOC. A secondary collection may also be developed when seemingly nothing more can be gathered in regards to a primary interest, i.e. it reflects the early moments for a new collecting interest. This latter explanation is unlikely to relate to adult pornography accumulations in IIOC offenders' possession, but identification of other IIOC secondary collections may represent movement through the COPINE levels. From a

collecting perspective, secondary collections are common and it is not so much whether they exist but when they developed, how they have changed overtime and their function to the offender which is of importance.

Even though nature of a collection may include multiple components, the original UK Sentencing Guidelines (2007) used size of the accumulation of indecent images as the starting point for sentencing, with larger collections warranting higher sentences. The starting point for determining the sentence in SODG (2014) no longer places such emphasis on the size of the collection of images, rather it uses a matrix combining severity (type and activity) of collected images (Category, A,B,C) with nature of offending behaviour, that is possession, distribution and/or production. Under the new 2014 sentence guidelines (SODG, 2014) size of the collection is now incorporated as an aggravating factor which relates to volume of images possessed, distributed and produced. As with prior versions of aggravating factors elements of the collection of indecent images, types of indecent images collected and aspects of the collecting process remain integral to judicial decision making processes.

Table 4: Aggravating factors Sentencing Guidelines Council (2007) and Sexual Offences Definitive Guidelines (SODG, 2014)

Sentencing Guidelines Council (2007) Aggravating Factors	SODG 2014 Aggravating Factors
1. Images shown or distributed to others, especially children	Failure to comply with current court orders
2. Collection is systematically stored or organised, indicating a sophisticated approach to trading or a high level of personal interest	2. Offence committed whilst on licence
3. Images stored, made available or distributed in such a way that they can be inadvertently accessed by others	3. Age and/or vulnerability of the child depicted
4. Use of drugs, alcohol or other substance to facilitate the offence of making or taking	4. Discernable pain or distress suffered by child depicted
5. Background of intimidation or coercion	5. Period over which images were possessed, distributed or produced
6. Threats to prevent victim reporting the activity	6. High volume of images possessed, distributed or produced
7. Threats to disclose victim's activity to friends or relatives	7. Placing images where there is the potential for a high volume of viewers
8. Financial or other gain	8. Collection includes moving images
	9. Attempts to dispose of or conceal evidence

	10. Abuse of trust
	11. Child depicted known to the offender
	12. Active involvement in a network or process that facilitates or commissions the creation or sharing of indecent images of children
	13. Commercial exploitation and/or motivation
	14. Deliberate or systematic searching for images portraying young children, category A images or the portrayal of familial sexual abuse
	15. Large number of different victims
	16. Child depicted intoxicated or drugged

In SODG (2014) upward adjustment from the starting point is now recommended if the collection contains images depicting a large number of different victims and moving images. If specific images depicted a child who was younger and vulnerable, in discernible pain or distress, was known to the offender, especially if known in a position of trust then a higher sentence is also now warranted. Evidence that the child depicted in the image is intoxicated or has been drugged remains an aggravating factor although the wording is more general in the new guidelines. In SODG (2014) new aggravating factors associated with aspects of the collecting process have been added, in particular if the offender deliberately searched for indecent images of younger children, Category A images or images involving familial sex abuse. High volume possession, distribution or production of images, saving and keeping the images for longer periods and actively trying to conceal or dispose of evidence are new aggravating factors associated with management of the collection of indecent images. Interestingly level of organisation and ordering of the collection has been dropped as an aggravating factor in the new guidelines, along with specific types of behaviour aimed at concealment of the crime, such as intimidation, coercion and threats to prevent the victim reporting. Finally the social and economic function of having indecent images of children were kept as aggravating factors. Showing, sharing and distributing indecent images, particularly in places which could lead to high volume viewing justifies upward adjustment, as would evidence of financial and commercial gain from the indecent images. Active involvement in a paedophilic social network which facilitate creation or sharing of indecent images of children was added as a specific aggravating factor in the new guidelines.

The new Sexual Offences Definitive Guidelines in 2014 (SODG, 2014) doubled the number of mitigating factors from three to six. Originally mitigating factors in the 2007 sentencing

guidelines pertained solely to collection and collecting process variables, such as smaller collection of indecent images and no attempt to permanently store or share indecent images with others. Under the new Sentencing Guidelines collecting variables have been virtually removed, with greater weight being given to criminogenic factors associated with lower risk of sexual re-offending, such as prior good character, no prior or relevant prior convictions, attitude to offence suggestive of remorse and a proactive approach to seeking risk reducing treatment. Additional mitigating factors reflect more traditional issues linked to criminal responsibility, such as mental disorder, learning disability or age and/or lack of maturity where it affects the offender's responsibility for the offence. The potential that some IIOC offenders collecting may be driven by mental disorder has been raised, in particular pathological collection (hoarding disorder) by Sheldon and Howitt (2007), O'Donnell and Milner (2007, p. 87), problematic Internet use (Taylor & Quayle, 2003) and developmental disorders such as Asperger's Syndrome (Murrie et al., 2002; Mahoney, 2009).

Current conceptualisations of hoarding disorder (DSM-5, 2013) suggest a three factor structure comprising excessive acquisition, clutter and difficulty discarding which are considered in terms of impairment to day-to-day functioning. From a traditional hoarding perspective clutter is identified if it negates the ability to use room within a home for their intended purpose. This definition of clutter may be problematic when thinking of IIOC offending and digital information, as concealment is integral to avoiding detection and it is unlikely that digital information will take over the home in the way tangible objects may. Indeed digital technologies are so advanced that vast quantities of information can be stored on small home computers, hand-held tablets, portable memory devices/systems and virtual memory storage, e.g., ICloud and a terra-byte memory stick. Some clinicians, such as Reinardy (2006) have argued that digital hoarding should be included within hoarding disorder as it causes functional impairment to the sufferer, others have questioned this by suggesting that the large accumulations of digital information is merely a reflection of failure to delete rather than a failure to discard and clutter (Bell & Gemmell, 2007). McNally (2010) in a preliminary study of digital information accumulators, termed "Megpies", found that in a sample of university lecturers and students that those people with larger amounts of digital information were characterised by ownership of multiple storages devices, obtained higher scores on the Saving Inventory Revised (SI-R, Frost, Steketee & Grisham, 2004) but were not hoarders. McNally (2010) concluded that for many "megpies" the large quantities of digital

material was merely a function of digital advances in memory storage and a file and forget phenomena.

Although not substantiated through empirical study, there is a potential that the vast accumulations of IIOC and other pornographic material may be associated with an individual suffering from pathological collecting behaviour, such as, hoarding and hoarding supportive cognitions (O'Donnell & Milner, 2007, p. 87; Sheldon & Howitt, 2007, p. 106). Whilst it is unlikely that IIOC offenders will have a hoarding disorder as they probably would not meet all the diagnostic criteria for clutter, it is still important to rule this out to avoid criminalising mentally disordered individuals and also ensuring appropriate treatment. To date no forensic studies have been published examining hoarding disorder, and the most commonly used diagnostic screening measure, Saving Inventory Revised (Frost et al., 1994) would need adaptation if applied to an incarcerated sample. It may also be important to clarify if the cognitive mechanisms thought to underpin hoarding relate to IIOC accumulating, and whether IIOC offenders are overly emotional attached to objects, feel overly responsibility to not waste the object, feel that they need to control the object and the object is useful as an aid to memory. This could be undertaken using the Saving Cognitions Inventory (SCI; Steketee, Frost & Kyrios, 2003). Again, due to the sample (incarcerated offenders) the use of the Saving Cognition Inventory would need adaption to be used in a forensic context.

Research suggests that the size of IIOC offender collections and collecting behaviour may be a function impulse control problems specific to sex e.g. paraphilias, low compulsion control or possible Internet addiction to explain the excessive time spent on line (Quayle, Vaughan & Taylor, 2006). Taylor and Quayle (2003) see problematic use of the Internet as important in explaining why some IIOC offenders are detected with large accumulations of images. Internet addiction has been implicated, as it encompasses maladaptive preoccupation with Internet use, experienced as irresistible use for periods of time longer than intended but also that it would cause significant distress or impairment resulting from the behaviour (Shapira, Lessig, Goldsmith et al., 2003, p. 85). Tonioni, D'Alessandris, Lai et al. (2012) in order to locate diagnostic criteria for Internet addiction disorder (IAD), undertook a study to investigate the psychopathological symptoms and behaviours and hours spent on line in a sample of 86 subjects with 33 subjects who had asked to be consulted for excessive Internet use. They found that the Internet facilitated social and interpersonal relationships, and IAD was characterised by excessive hours spent on line. Young (2011) argues that "although time

is not a direct function in diagnosis ... those that were considered to be dependent on the Internet spent anywhere from 40 to 80 hours per week online with individual session that could last up to 20 hours" (p. 20). Studies looking specifically at time spent on line in regards to cyber sexual activity found that those with low-moderate levels of sexual compulsivity spent on average 5 hours per week online, however the more serious cyber-sexually compulsive spent 20 hours weekly on line (paraphrased Griffiths, 2012).

Although problematic use of the Internet has been considered similar to substance addiction were the problem is externally controlled via the computer (Shapira, et al., 2003). Later researchers suggest that it is more a compulsive activity that is driven internally and that the external use of the Internet is only facilitating a compulsion that already exists within the individual (Griffiths, 2000; Widyanto & Griffiths, 2007). Suler (2004) argues that the Internet has a disinhibiting effect linked to beliefs of anonymity and that there is little consequence to what they do online, and therefore engage in more risky behaviour than they may in real life. Problematic Internet users come to believe that what they are doing online is not serious as the lines between reality and fantasy become blurred. Therefore those that take part in both legal and illegal activities see it cognitively as involving fantasy and in this sense not problematic as it isn't real. Finally the disinhibited individual believed that that everyone is equal on the Internet with no hierarchical structure to curb their communication behaviour, therefore no rules exist that would compel them to communicate in a virtual world in the way they would within the hierarchical structures and associated communication styles in the real world.

Delmonico and Griffin (2011) consider Suler's conceptualisation of online inhibition as "the corner stone for why individuals engage in online sexual behaviour, and the risks they are willing to take in such behaviours" (p. 116). Suler's (2004) description of the disinhibition elements associated with people's use of the Internet would seem particularly problematic for those with a real world interest in illegal sexual activity such as child pornography as it would suggest individual's may believe that there is immense freedom to search for, view, download and save these types of imagery, and that because it is fantasy driven and anonymous there is little consequence to the self or the persons depicted in the images. Taylor and Quayle (2008) note the criminogenic qualities of the Internet, in the collection and distribution of IIOC, suggesting the Internet itself might be thought of as contributing to the commission in the collecting and trading of indecent images of children. They suggest "that the use of the

Internet for some users may allow altering of mood, lessening of social risk and removal of inhibitions, it may enable multiple self-representations, show evidence of group dynamics, validate and justify and offer an exchange medium, challenge old concepts of regulation and disrupt and challenge conventional hierarchies" (p. 121). It is evident from the literature concerning problematic use of the Internet that what Taylor and Quayle (2008) see as criminogenic may also represent behaviours associated with compulsive cyber sexual activity. Middleton (2008) would seem to agree that problematic Internet use is an impulse control problem, when he states "that while there is undoubtedly evidence of escalation in terms of hours spent online, particularly for those who are also collecting large volumes of indecent images, the case for addiction is not clear" (p. 56).

Quayle, McKenzie, Bannon and Glynn (2015) writes that involvement in non-contact Internet sex offences can be due to vulnerability through learning needs, including autistic spectrum disorder, exploration of sexual identity and orientation or as part of a grooming process. Developmental issues that have ritualistic collecting behaviour and identified in offending populations, such as Asperger's Syndrome, also have the potential to draw the sufferer in to repetitive cycles of gathering, accumulating and organising IIOC without realising that it is wrong to do so. If left undiagnosed there is a potential for the Asperger sufferer to continue ritualistically collecting and organising IIOC images, and if detected they may present to the court as having large, widespread and possibly organised collections which could be interpreted as implying more deviancy, when mens rea may not actually be present. Whether Asperger's Syndrome plays a part in collecting of indecent images of children remains to be tested, and this is especially important given the recent inclusion of mental disorder as a mitigating factor in the Sentencing Guidelines (2014). To date only a few case studies have been published and some expert opinion papers consider the implications for an Asperger sufferer coming into contact with the law in regards to IIOC offending, such as Mahoney (2009) and Murrie et al. (2002).

The reliance on aspects of collecting behaviour in sentencing practices is surprising given how little is known about human collecting behaviour. The focus on size and external definitions of relationships between images in an IIOC collection is a rather simple interpretation of the nature of collections/sub-collections. Indeed it may be an illusory correlation and other equally plausible explanations for large collections of IIOC have been proffered. For instance, size or volume of a collection may equally be a consequences of

technological advances, increased accessibility along with greater ability to conceal identity if preferred. Ease of computer and Internet access in the privacy of their home along with access to free/inexpensive IIOC images makes accumulating, swapping or trading images easier and increases opportunity to indulge an interest in IIOC (Taylor & Quayle, 2003). Greater storage capacity on computers and portable memory devices may also promote acquisition of large collections as clutter is not a problem and the IIOC security can be easily maintained (Gillepsie, 2008; Sheldon & Howitt, 2007). Problematic Internet use in terms of addictions, compulsions and dis-inhibition may also offer some explanation of the collecting process and how the size of collections can grow exponentially through excessive time online, engaging with like-minded others and compulsive online sexual activity, where online disinhibitions allow the IIOC offender to continue doing what he/she wants without fear that it is wrong or that someone is actually being hurt. Application of collecting theory to this suggested link between size and deviancy, suggests that the relationship is unlikely to be linear. Potentially the most sophisticated IIOC offenders may have the smallest and specialist collections that are honed over years of engagement with IIOC and like-minded others. The collecting literature would also point to other areas of interest beyond size, in particular how items in the collection are used overtime and at moments in time. Collecting theory suggests whilst the relationship between individual objects in a collection can be externally derived, for example through classification systems like COPINE, determination of a collection can also be a very personal endeavour with connections between collected objects not always obvious to the external observer. This idiosyncratic and subjective process of collection formation is missed by simply using objective classification systems, as is the IIOC offender's personal narrative about the relationship between objects in their collection, content changes in terms of what is discarded, gathered and accumulated overtime as well as increases or decreases in collection size. When considering nature of a collection the presence and meaning of secondary collections and their relationship to the primary collection may also be an avenue of exploration. Furthermore, research has suggested links to problematic accumulating as well as potential IIOC accumulating as being motivated or driven by pathologies such as hoarding and development issues, such as, Asperger's syndrome as well as behavioural issues such as disinhibition. Equally compulsivity issues may be related e.g. fanatical collecting (Chung et al., 2008; Redden & Steiner, 2000) and many researchers point out to problematic Internet use enabling IIOC offending (Taylor & Quayle, 2003; Quayle, McKenzie, Bannon & Glynn, 2015). Other psychological functions of collecting have been suggested, such as emotion management, negation of anxiety and

depression and management of childhood trauma (Muensterberger, 1994; Long & Schiffman, 1997; Subkowski, 2006).

Empirical Studies IIOC Offending and Collecting

There is a growing literature using qualitative and quantitative methods which describe the psychological and forensic characteristics of IIOC offenders. Comparison studies are also common, and these typically try to distinguish between sub-groups of IIOC offenders and differentiate between Internet sex offender groups, in a bid to support more accurate risk assessment and management. Before considering key studies, it is important to note common methodological problems which may account for inconsistent findings and negatively affect our ability to draw conclusions with confidence as to the characteristics of IIOC offenders. Many of the studies are underpowered in regard to sample sizes, such as, (Armstrong, 2009; Sheldon & Howitt, 2007; Marshall, O'Brien, Marshall, Booth & Davis, 2012; Meridan, 2012; Perrot, Benony & Lopes, 2001; Roche, O'Reilly Gavin, Ruiz & Anrancibia, 2012; Rooney, 2003; Seto, Wood, Babchishin & Flynn, 2012; Tomak Weschler, Ghahramanlou-Holloway, Virden, & Nademin, 2009; Wall, Pearce & McGuire, 2011). Over-reliance on convenience samples from forensic treatment services may be problematic and may not tell us the whole story, particularly in regard to hidden IIOC offenders who may never or rarely come into contact with the criminal justice system. Henshaw et al. (2015) also notes that a number studies only acknowledge the most recent offence and extrapolate this to define their samples as exclusively contact or IIOC only offenders, but once criminal history is taken into account these groups may not be exclusive (Aslan & Edelmann, 2014; 009; Elliott, Beech, Mandeville-Norden and Hayes, 2009; Jung, Ennis, Stein, Choy, & Hook, 2013; Webb, Craissati, & Keen, 2007). The precise nature of the study samples can also be hard to discern, with some studies treating Internet sex offenders as though they are a homogenous group and fail to distinguish between online groomers and IIOC only offenders, such as, (Babchishin, Hanson, & Van-Zuylen, 2015; Hernandez, 2000; Middleton, Mandeville-Norden, & Hayes, 2009; Sheldon & Howitt, 2007; Taylor & Quayle, 2003). Some studies used only two groups i.e. contact vs child pornographers, (e.g. Armstrong, 2009; Bates & Metcalf, 2007; Magaletta, Faust, Bickart, & McLearen, 2014; Marshall O'Brien, Marshall, Booth, & Davis, 2012; Reijnen, Bulten, & Nijman, 2009; Seto, Wood, Babchishin, & Flynn, 2012; Wall, Pearce, & McGuire, 2011). Studies with only two groups fail to take account of crossover offenders, as a third group has consistently emerged from prior research who commit offences involving contact and indecent image of children. This crossover group is commonly referred to as mixed offenders, and seem to be at high risk of offending with criminogenic needs and offending cycles which differentiate them from contact and IIOC only offenders (Babchishin et al., 2015).

Poorly specified IIOC samples and comparison groups may account for potential inconsistencies, along with variations in psychological measurement and official counting rules for IIOC offending both nationally and internationally (McGuire & Dowling, 2013). Whilst caution should be exercised when drawing conclusions from the research into IIOC offending, existing research does provide a foundation upon which to build.

The critical review below will generally take a chronological perspective, identifying important theoretical and empirical papers in a bid to develop our understanding about the potential collecting aspect of IIOC offending. The purpose of this review is to clarify what is known about the psychological characteristics of the person who gathers and accumulates indecent images of children, the nature of the IIOC images gathered and accumulated, as well as the processes IIOC offenders go through to obtain and manage their accumulations of IIOC and the function IIOC serve for the offender.

Early accounts of a collecting aspect in IIOC sex offending primarily stemmed from police fieldwork. Theorising on IIOC offenders was often subsumed within the more broadly defined Internet or child sex offender group and focused on descriptively categorising sex offenders in a bid to support police investigations. FBI officers Hartmann, Burgess and Lanning (1984) paper "Typologies of collectors" offered the first typology of child pornographers as collectors and suggest four types of offenders who have IIOC. These where labelled as:

- Closet: One who is secret about the images they acquire and has little interest in sexual contact with children;
- Isolated: This collecting type while undertaking contact crimes will also access and collect IIOC or produce their own images;
- Cottage: This type of collector will be the one more likely to share their collection with those of similar interest;

• Commercial: This collector values the collection in terms of trading for profit. And images may relate to abuse they have taken part in.

Hartman, Burgess and Lanning's (1984) typology has never been verified, but this descriptive narrative includes a number of hypothesis specifically about the collecting aspect of IIOC offenders, in particular the typologies suggest that IIOC serves multiple functions to the offender, and these functions may differentiate between contact and non-contact IIOC offenders. Hartman et al. (1984) posited that financial gain and production of IIOC may be more associated with contact offences, whereas not sharing and keeping IIOC secret may be more representative of IIOC only offenders. Again from his personal experience as a FBI officer, Lanning (1998) updated the original typology placing child molesters with IIOC into three categories:-

- Situational offender which incorporates a broad range of offenders with differing motivation. He places the normal but curious adolescent who searches for pornography via the newly found Internet in this category, as well as the convicted violent offender who is morally indiscriminate and driven by aggression and achieving power and the profiteer who will be involved only for financial reasons;
- Preferential offender also involves three sub-categories, the paedophile who has a
 preference for young children, the sexually indiscriminate who has a wide variety of
 deviant sexual tastes and the latent preferential offender who has latent deviant
 desires with the potential for illegal sexual tastes and feels able to explore their desire
 through the perceived safety and anonymity of the Internet.
- Miscellaneous Offender includes those who are misguided in how they see the legalities of downloading Internet child abuse pictures and may think it is acceptable to download child abuse images in the name of research, media investigation, as a prank or through concern or safety of others.

Lanning's categories have again not been empirically verified, the distinctiveness of categories are questionable and may not be applicable to IIOC offenders only (Prat & Jonas, 2013). Indeed Lanning's more recent revision confirms this criticism and he places all sex offenders on a motivational continuum of situational to preferential (Lanning, 2010). From a collecting perspective, Lanning's work suggests that looking for themes in content of images gathered, possessed and accumulated may provide insights into the offender's level of

deviancy, sexual interest and potential risk of going onto to commit contact offences. For instances "preferential sex offenders, who are currently the primary exploiters of children, often take pictures, films, and videotapes of the children they molest. Such offenders may maintain homemade child-pornography collections documenting the children with whom they are involved, and they may also sell or trade such images" (Klain, Davies & Hicks, 2001, p. 4). Applying the idea of the motivational continuum of situational to preferential one may expect changes in the nature of collection overtime as preferences in sexual interest develop.

The function of having IIOC according to Lanning (1992) may be multiple, such as personal sexual satisfaction, induce ideas and/or perception in children that the images are normal, blackmail or to frighten abused children into keeping secrets, a means of gaining information or swapping images for information about other children, and finally to garner profit. Non-sexual motivators like naïve curiosity, meeting unmet psychosocial needs, research, pranks or protection of others were also suggested. Lanning suggest the collecting process of IIOC is influenced by age, amount of privacy and computer and Internet. Older offenders were thought more likely to have large IIOC collections, and the Internet was considered a core enabler of IIOC offending by Lanning (1992, 1998). The Internet offered anonymity to pursue an interest in IIOC, ease of access and resulted in IIOC becoming relatively inexpensive, may be even free. Lanning (1992) also notes that the importance of image rarity, stating "where material is difficult to find, there is a commercial value attached to it (p. 158).

Taylor, Holland and Quayle's (2001) COPINE scale has been highly influential, and was the first attempt at standardising decisions on the nature of sexual images of children and the nature of such collections. As discussed earlier, one of the problems with externally derived classification systems is that it ignores the IIOC offenders' subjective meaning about why images are important and how images in the collection relate. Taylor and Quayle's (2003) subsequent work has supported refinement of sexual image classification systems, such as SAP and ABC scales, and latterly developed our understanding through empirical research about the function of sexual images to the IIOC offender and the enabling processes which support gathering and accumulating.

Taylor and Quayle's (2003) seminal work found six principal discourses in the accounts of a mixed contact with IIOC (n=7) and IIOC only (n=6) sample of men convicted of indecent images of children offences. It was not clear what the demographic background of the sample was ("a varied demographic background" p. 79). The IIOC offenders in this qualitative study reported using the IIOC to support sexual arousal, facilitating social relationships, as a way of avoiding real life, as therapy, part of Internet use and as collectibles. Taylor and Quayle (2003) confirmed Goldstein's (1999) hypothesis that IIOC function as more that aids for fantasy and masturbation noting they:-

- 1. Remind the offender of what the child looked like at a particular age;
- 2. Symbolically keep the child close;
- **3.** Make the child feel important, or special;
- **4.** Lower the child's inhibitions about being photographed;
- **5.** Act as a memento that might give the offender status from other people that he associates with:
- **6.** Demonstrate propriety by convincing children that what the offender wants them to do is acceptable because he has engaged in similar ways with other children;
- 7. Provide a vehicle for blackmail:
- **8.** Act as an aid to seduce to seduce children by misrepresenting moral standards and depicting activities that the offender wishes to engage the child in.

In terms of the collectibles discourse the IIOC offenders described the indecent images like commodities such as baseball cards and that the IIOC collecting was a continuation of previous interest from adult magazines and movies. Taylor and Quayle (2003) commented that IIOC offender's use of collecting terminology was a form of distorted thinking used to normalise their behaviour or see it as innocent. Quayle (2008) later opined that "offenders often call themselves 'collectors', and use this term to differentiate themselves from 'paedophiles' (p. 75).

Taylor and Quayle (2003) found that IIOC offenders not only gain pleasure from acquiring and using the indecent images, but as predicted by Lanning (1992) and O' Donnell and Milner (2007) actively involve themselves in other areas associated with collecting that may also be rewarding, such as cataloguing, ordering, indexing and general organizing of their images. Quayle and Taylor (2001) suggest that organizing and cataloguing represents a high level of permanence and the complexity of the cataloguing could identify individuals who

were more primed to trade and may be a deviant activity. The activities involved in the preservation of an IIOC collection is influenced by the need for security, while at the same time leaving the IIOC and accumulations accessible (Quayle & Taylor, 2001, p. 158-159). Sheldon and Howitt (2007) take a more cautious approach stating no satisfactory explanation exists for cataloguing and collecting of indecent images of children, and they wondered if it is just an extension of collecting behaviour as offenders in their sample often reported having other collecting interests. In a later paper, Quayle (2008) offers similar commentary "that collecting abuse images in many ways is no different to the collection of any other artefacts, except that their content is illegal and they function as an aid to sexual arousal" (p. 75).

A previously unidentified function of IIOC gathering and accumulating found by Taylor and Quayle (2003) was the notion of set completion. Completion of a series of imagery allows for a manufactured story to be told and perhaps allow for further heightened sexual satisfaction for the offender, it also lets the collector attain satisfaction through achieving their goal of completing a set or series. Furthermore, completing the set adds personal value and also greater value in the IIOC community (Taylor & Quayle, 2003, p. 161). This thrill of completing sets was also noted by others, and O'Donnell and Milner (2007) writes "the need to collect full series becomes an important goal, independent of the pleasure gained from viewing the images" (p. 8). This idea of manufactured IIOC sets being a motivator for offending is comparable to the production and marketing of manufactured sets of legal collectibles, with the exception being potential sets of IIOC would not be advertised openly in magazines, TV, etc. Danziger (2004) argues that manufacturers of collectible sets seem to understand the psychology of their targeted collector groups and exploit a strong emotional desire for completeness for financial gain. At this time it is unclear if IIOC set distributers have commercial motives in developing IIOC sets, nor is it clear if incomplete sets are used by distributers to encourage further offending in others who strive for completeness.

Quayle (2003) sought to explain how gathering and accumulating IIOC could become problematic, noting the interplay between Internet process variables and the individual's social cognitive factors. Taylor and Quayle's (2003) Problematic Internet Use model identifies three aspects which shift an individual from useful to problematic in Internet uses, that is, level of engagement and rate, social exclusion and content. They also suggest that historical factors may make an individual more vulnerable to engaging with IIOC, in particular early sexualisation, poor socialization and attachment problems. Social and

cognitive variables may also increase the risk of someone choosing to use IIOC, noting emotional loneliness, distorted thinking, dissatisfaction with who they are and disinhibition. These psychological factors when coupled with Internet specific variables, like the perceptions of anonymity and ease of access to pornographic material helps the individual to more freely explore his/her sexual interests and may cause an escalation in Internet use if this individual finds the experience rewarding. That is they will continue to gather and accumulate IIOC if they find what they like.

Taylor et al. (2001) and Taylor and Quayle (2003) see the eventual downloading of IIOC as involving a process of stages which initially begins with the downloading of socially acceptable pornography, but that this escalates to more severe pornography until the individual develops and explores what they are really interested in gathering and accumulating. This idea that the IIOC offender becomes more expert overtime parallels ideas in collecting research (Strone, 2004) and also supports the notion that collecting, the collection and collector are dynamic concepts. Taylor et al. (2001) contend that content of offenders' collections could provide unique information about the psychological characteristics and motivations of offenders, which might prove useful in making judgments about both the likelihood and severity of their offending and subsequent behaviour. Escalation in type of pornographic material being sought, may also suggest a need for novelty as well as potentially reflecting the individual's lack of insight into what they desire or dissatisfaction with what they have found, thus prompting further searching. The dynamic nature of the collection, for instance if the IIOC offender fails to discard less desirable images as they progress in their IIOC criminal career then the collection may capture in a tangible form the development of IIOC offenders sexual interest over-time.

Taylor and Quayle (2003) describes level of engagement and rate as having positive and negative connotations for the collector in so much as collecting can be thought of as offering the individual a chance for travel, positive social interaction, and mental stimulation associated with gaining expert knowledge on a given subject. However, they suggest the Internet can become problematic when the positives associated with the gathering and accumulating IIOC become the most important focus in the individual's life and leads to neglect of normal activities such as a loss of focus on family, neglect of work duties or lack of maintenance of other social activities. Taylor and Quayle (2003) suggest that the most

relevant problematic area is the content of IIOC accumulations, as IIOC gathering does not have the same social context of those who collect legal objects or images of child erotica. That is these collectors cannot openly partake in social events due to "fear of exposure" (p. 155). Moreover, Taylor and Quayle (2003) are of the opinion that owning IIOC which may not be viewed by others, promotes solitary behaviour "where the intrinsic value to the individual of the item collected itself is the principle, if not the only factor driving collecting" (p. 155). Taylor and Quayle (2003) sees social exclusion occurring when growing a collection and when devotion to the object leaves little space for social involvement. They suggest that although collecting has the potential to be a positive experience for the introverted or socially isolated as it can provide opportunities for social contact, it can also narrow rather than expand social contact as families and other close friendship may become neglected. Moreover, the costs associated with gathering and accumulating IIOC could be financial problems that can cause harm to ordinary family and social financial commitments (p. 155).

Taylor and Quayle (2003) also see the development of the Internet as problematic to IIOC offending as it permits anonymous and easy access to IIOC from within the privacy of their own home. This means IIOC offenders can now secretly gather and accumulate with less cost and potential for detection in comparison to when IIOC had to buy hard copies. Other researchers, such as Lanning (1992) and Sheldon and Howitt (2007) also point to the rise of the Internet as an enabler for IIOC collecting and large accumulations of IIOC.

Taylor and Quayle (2003) assert that social interaction is of primary importance to the IIOC offender, and facilitates acquisition, trading and swapping. The social importance was also noted by Calder (2004) who states, "for those who download and go on to engage in social contact on the Internet, the process of sustaining that engagement requires credibility" within that community. Calder suggests that credibility perpetuates and maintains the cycle of offending behaviour, i.e. credibility is achieved through community interaction, trading of IIOC and sharing of sexual fantasy stories, which if undertaken successful results in validation and builds credibility within the IIOC sex offender community. The growth and acknowledgement of the technical skills in concealing identity and acquiring rare images may also build credibility and result in higher status and the individual person may become an important contact or expert within the community. This potential for elevated status is likely to enhance self-esteem and provide more opportunities for greater involvement and potential

to contact with other high status individuals within the sex offender community. In a sense the individual could become an expert and leader, something that they characteristically would probably be unable to achieve in everyday life given their low self-esteem, underassertiveness and social skills deficits (Babchishin et al., 2015; Henshaw et al., 2015). Calder (2004) suggests that this growing prestige or credibility within the community "offers a form of social reinforcement which validates and legitimises their activity. As such, there is a very real potential change in the offender's beliefs values and cognitive styles when using the Internet" (p. 11). Calder (2004) goes on that seeking out individuals and communities on the Internet offers validation and normalization of developing IIOC offenders' sexual interests and behaviour. Both Taylor and Quayle (2003) and Calder (2004) suggest this online and offline social networking offers validation, acceptance and stimulates further personal interest in IIOC. Taylor and Quayle (2003) suggest that as interest grows and time on the Internet increases to satiate the appetite, a side effect may be that overtime the IIOC offender pulls back from society or rejects social interaction with non-IIOC aficionados, which in turn allows the individual more time to go online to gather and accumulate large amounts of material. Less connection with other non-IIOC offenders also permits more time for collection management, that is sorting and cataloguing behaviours identified by Taylor et al. (2001).

The PUI model posits that communication with like-minded individuals who share and swap images via many Internet resources, such as chat rooms and file sharing arenas may offer and fulfil the offenders need for socialization albeit a deviant peer group. This is problematic as it can be like a 'schools for crime', as IIOC offenders learn more about what IIOC are available, how to get them and to psychologically defend their views and interests no matter how damaging it is to the victim and society. For some this social element may also provide a psychological function, such as social acceptance, validation, esteem building and eventual prestige within IIOC groupings. It is evident from the collecting research cited in chapter one that social aspects similar those cited above are part of "normative" collecting experiences. Social networking similarly functions for normative collectors, providing an important source of social activity, personal validation and self- esteem enhancement and imbuing personal meaning to the importance of their interests and collections (Pearce, 1998; Belk, 1995; Formanek, 1991). Put simply the collection is part of them and validation of a collection is validation of the collector themselves. Social networking also permits opportunities for social comparison, which is creates hierarchies and competition, with some collectors

advancing themselves to esteemed and expert positions within collecting groups. The idea of genre specific collecting communities as a "school" that helps the collector to develop higher understanding of the objects themselves and processes to obtain them is consistently noted in "normative" collecting research. Carey (2008) proffers that collecting communities attach importance to items in terms of increasing knowledge about them as collectibles through research and in doing so add greater monetary and social value to the collectible. Moreover involvement within the community allows for potential contact with other networks concerning the collectible and may enabling further feelings of attachment to those individuals interested within their chosen genre. Belk and Wallendorf (1994) suggest that the motivation for "normative collectors" to be involved in communities is to build a positive reputation and to legitimise that their collecting behaviour is a worthwhile endeavour. Overall it seems that it makes little difference whether the image is legal and illegal, as the social element serves the function of prompting personal well-being and motivation in the collectors, and is central to the process of gathering and accumulating. If some IIOC offenders are actually undertaking collecting behaviour, the socialising with paedophilic communities is likely and probably a core perpetuating factor in their offending.

Many typologies have been developed to try and define terminology which best describes individual IIOC behaviour however generally they do not try to describe IIOC offending behaviour as specifically involving collecting. One typology of online child pornographers that does specifically relate their typologies to collecting was formulated by Krone (2004). In an Australian government publication, Krone adapted Taylor and Quayle's (2003) levels of engagement to define seriousness of the child pornographers offending behaviour in terms of the nature of the abuse, from indirect to direct victimization, the level of networking by the offender; and the level of security they employ to avoid detection. Krone (2004) describes his typologies as follows:

- Browsers are people who access IIOC by accident but decide to keep then rather than
 delete. They suggest Browser's offending will be indirect, they will make little
 attempt to conceal their IIOC collections and are unlikely to network;
- Private fantasy are people who used the collection of indecent images for personal use and as an aid fantasy, and like the browser victimisation is indirect, no security and no networking;

- Trawlers are actively seeking child pornography using openly available browsers, there is little or no security employed and minimal networking of offenders.
- Non-secure collectors download, purchase and share images from openly available sources or chat rooms. Security is also low for this group, victimisation is indirect however they are likely to have high levels of networking with other non-secure collectors;
- Secure collectors download and exchange material, as in the previous case, but take considerable security precautions and will only use secure networks and exchange with others who will share with them in a secure manner;
- Online groomers will use the collected images to lower inhibitions in children in order to make contact, and the groomer may or may not seek IIOC in the ways described above;
- Physical abusers are contact offenders who also use images to disinhibit minors but also collect images to use for sexual satisfaction when minors are unavailable to abuse;
- Producers are contact offenders record their abuse of others and share this with others interested in IIOC;
- Distributors: These individuals may not be involved in actual child abuse nor interested in IIOC, and could purely be involved with IIOC for financial gain. Security, level of contact with the victim and networking varies.

It is not clear how Krone developed his nine typologies of child pornographers, although they seem to have face validity which has been appealing to some (Prat and Jonas, 2013; Beech, Elliott, Birgden & Findlater, 2008). From the aforementioned, it is likely IIOC only offenders are most likely to fit into Trawler, Private Fantasy, Browser, Secure, Non-secure and Distributer types, and these types seem to use their IIOC images differently from Krone's other types who use their indecent images primarily to gain contact with minors so they may commit contact offences. Krone (2004) suggests various collecting variables may distinguish between non-contact child pornographers, such as their willingness to network with other IIOC offenders and the level of security utilised when gathering images and storing them. Browsers, Private Fantasy and Trawlers took little precaution in acquiring their images but generally did not share these or socially network. Non-secure collector types also put little effort into concealing their identity when gathering IIOC, however they are posited to engage in high levels of social networking. The secure types also engage in social networking

however this was carried out in a more cautious manner as was the collecting process they engaged in. The distributer type is thought to have little interest in IIOC, except for making money illegally. Krone confirms previous ideas about the importance sharing and social networking, and for some this may be an integral part of their collecting process, whereas for others sharing and networking is of limited interest and this also seems to be the case for certain "normative" collectors as found in Pearce's CCBS study (1993). Krone also offers some succinct ideas about the collecting process variables which may be of importance, in particular indiscriminate versus targeted collecting and organised and disorganised collection management. The process of collecting and collection management could also be secure versus little to no concealment in regards to gathering and accumulating. He also highlights that there may be some people with accumulations of IIOC who may have no interest in these beyond a capacity to make money, much like the "antique dealer" of the IIOC world.

Elliott and Beech (2009) offered a typology suggesting four types IIOC offender which are very similar to previous typologies. Like Hartman, Burgess and Lanning (1984) and Krone (2004), they suggest there is a group of IIOC offenders whose primary function in having IIOC images is to make money, i.e. commercial exploiter, or to use the IIOC as tools to permit direct victimisation. Elliott and Beech's (2005) other two types were differentiated on their sexual interest in children. The "Periodically Prurient" offender who have no particular sexual interest in children rather access images out of curiosity and may have addictive behaviours which drive collecting. Elliott and Beech suggest the "Periodically Prurient" type is likely to have small, varied and insecure collection. The fourth type use the images to fuel sexual fantasies about children and the fantasy type may have larger specialist collections which they are likely to share with like-minded others in order to develop their deviant interest in children. Unlike Krone (2004), Elliott and Beech's typology do not speak to collection management variables, such as organisation, nor to potential differences in the importance placed on concealment. This is also a slightly different position to Taylor and Quayle (2003) and the legal position which sees collection management processes, such as ordering and concealing, as markers for elevated deviancy. Interestingly Wortley and Smallbone (2006) place sharing and concealment at the heart of their typology, that is secure or non-secure collector types. Their typology considers the "Non-Secure Collector" to be one who is non-discriminating and open about how they go about gaining and storing IIOC. Their collections could readily be viewed by others and they communicate freely with other collectors in chat rooms, etc. The "Secure Collector" is more likely to be part of a secret illegal network or paedophile ring, and will be meticulous and organised with special attention aimed at maintaining security and evading detection from the authorities. Wortley and Smallbone suggest that the Secure Collectors are the group more likely to have major collections of indecent images of children.

Some of the hypothesized collecting behaviours identified in typological papers, rather than distinct types, were identified in Sheldon and Howitt's (2007) mixed method study (interviews and psychometrics) to explore and compare Internet sex offending. This study did not have a distinct IIOC offending sample rather the 51 white male Internet sex offenders were grouped into contact only, Internet only or mixed offenders. Sheldon and Howitt (2007) discussed the ways the Internet enabled sexual offending, through supporting acquisition of IIOC, legitimised beliefs that what they are doing is normal, and made involvement with deviant material socially inclusive. Like Taylor and Quayle (2003) participants, Internet sex offenders in this study again compared their accumulations of IIOC to other types of collections, such as "cigarette cards and match books", and in interacting with the IIOC offenders reported a process of dehumanising the human subjects within the images. Sheldon and Howitt (2007) interpreted this behaviour as a form of distorted thinking, which served to protect the Internet sex offenders with IIOC from believing what they are doing was wrong and as a way of normalising their behaviour. The dehumanising element may also be a specific IIOC distortion which allows the offender to overcome internal inhibitors which may stop him/her misusing the image. It is unclear at this time if legal image collectors go through this process, or whether this psychological thinking process is unique to individuals gathering IIOC.

Sheldon and Howitt (2007) confirmed Taylor and Quayle's (2003) assertion that social interaction and networking was of primary importance to the IIOC offender, and again found it served the function of supporting acquisition, trading and swapping. Going further they reported that this social connecting was facilitated through anonymous online file sharing, such as USENET which allowed communication through themed newsgroups were individuals can reply publically or privately to items of interest. Other popular methods used to gain or share IIOC were peer to peer file sharing, such as Gnutella bulletin boards that allow messaging and online conversation as well as real time contact through chat rooms. In effect, Sheldon and Howitt (2007) found IIOC offenders can communicate, trade and transfer child images easily with like-minded others through multiple sources, and advances in digital

technology means they can easily extract vast quantities of information from master computers onto domestic computers and easily disguise such transactions. Wolak et al.'s (2012) study on pornography possessor trends in US offenders confirmed Sheldon and Howitt's results that is IIOC offenders often use multiple online and offline methods/sources when gathering, accumulating and keeping IIOC. From perusing the Internet, it seems that those who collect legal objects also use various pathways to acquisition to satisfy their needs, e.g. antique fairs, specialist collector fairs, specialist online groups, word of mouth and auctions. Finally it is difficult to extrapolate with confidence as the Internet sex offender sample was treated as homogenous, but there is a consistent trend evolving that some IIOC offenders may be following similar processes to legal collectors, but how they relate to their images may differ as too would the function of the image which appeared to be predominantly sexual for IIOC offenders.

Differences in the psychological characteristics between IIOC Internet sex offenders (n=505) and contact sex offenders (n= 526) was examined by Elliott et al. (2009) using psychological tests that related to offence supportive beliefs, empathetic concern, interpersonal functioning and emotional management. Elliott et al. (2009) found IIOC were younger, had less criminal history and IIOC depicting both male and female victims. IIOC offenders were characterised by fewer victim empathy distortions, lower frequency of pro-offending attitude, less cognitive distortions supportive of child sexual offending and tended to see themselves as less emotionally congruent with children. IIOC offenders also had a bias towards a more negative self-description, better impulse control, less assertive, lower in dominance and exhibited a greater ability to identify with fictional characters and fantasy. Elliott et al. (2009) concluded IIOC Internet sex offenders "may be unlikely to represent persistent offenders or potentially progress to commit future contact sexual offenses" (p. 87). Using a larger sample Elliott et al. (2009) provided greater clarity about the demographic and psychological makeup of IIOC offenders, however the IIOC sample likely includes online groomers and mixed offenders who likely use IIOC to lure victims which may be different from an exclusive IIOC only offender who may have little interest in contact offences In collecting terms this study tells us about the nature of those who gather and accumulate IIOC but provides little guidance on the nature and function of IIOC and the processes involved in gathering and the accumulating.

McCarthy (2010) delves a little deeper into collecting aspects when she investigated differences in online behaviour and involvement with images in a small-moderate sample of 56 non-contact child pornography offenders (IIOC only offenders) and 51 contact offenders who used child pornography (mixed offenders). She found no difference between groups in age, ethnicity, marital status, education and history of abuse as a child. IIOC only offenders were less likely to have a history of drug abuse and to be diagnosed with paedophilia. McCarthy found that IIOC only offenders were less likely to masturbate to indecent images of children and download indecent material to external hard drives. McCarthy found no differences between contact and IIOC only offenders in regards to trading, paying for, concealing or organising their collections of indecent images of children, but those who engaged in a combination of these behaviours were more likely be part of the mixed offender group. IIOC only offenders were less likely to proactively seeking access to children, such as viewing child modelling sites, contacting minors online, chatting sexually to minors' online, sending child and adult pornography to minors as well as being less likely to report attempting to meet the minor. There was no statistical significance in time spent viewing images online, and both groups were involved in online and offline communications with others who shared their deviant sexual interest in children however mixed offenders reported higher levels of social networking. Mixed offenders had significantly larger collections of IIOC that is 750 or higher, in comparison 252 or fewer for IIOC only offenders. There was also a significant difference in the ratio of indecent images of children to adult pornography within collections, with those who owned more IIOC in relation to adult pornography being in the Mixed Offender group. McCarthy (2010) concluded that child pornography offenders are a heterogeneous group, and in comparison to mixed offenders they have fewer problems with substance abuse, antisocial orientation and deviant sexual interest. Interestingly more involvement with the IIOC, such as using for sexual gratification, trading and organisation, was indicative of those offenders who also had sexual contact with minors. McCarthy's research suggests IIOC offenders may spend considerable time engaged in the collecting process of looking for and researching images but may only possess a few highly desired images representing an ideal type. With mixed offenders, quantity and variety seems important, and the function of IIOC seems more about acquiring sexual satisfaction.

Lee, Lamade, Schular and Prentkey (2012) used self-reported offence data linked to child sex offences to classify their prison and community based sex offender sample. This resulted in 133 Internet only with no prior contact offences, 176 contact only and 60 mixed contact and

Internet offenders. It is unclear what constitutes an Internet only offender in this study, and it likely this group will include IIOC only offenders, online groomers and possibly predators using the Internet. Lee et al. (2012) found that there was no difference between groups in ethnic or racial makeup and age, although the Internet only group were overwhelmingly younger, white and the contact groups were more racially diverse. This non-significant finding is contrary to much of the previous research, although demonstrates a similar trend in that Internet sex offending is predominantly a white male activity, such as, (Bickard, Renaud & Camp, 2015). Differences in education and employment confirmed prior findings with higher levels amongst Internet only offenders and they were more likely to work in professional positions, which were also found in later studies, such as, Faust et al. (2015). Contrary to McCarthy but in line with Taylor and Quayle's (2003) problematic Internet use model they found from the logistic regression that Internet pre-occupation was more predictive in the Internet only group and to a lesser extent the mixed offending groups. Again antisocial behaviour was more predictive of the contact and mixed offenders.

Elliott, Beech and Mandeville-Norden (2013) study compared the psychological characteristics in a large UK community treatment sample, which included;

- 526 contact offenders with no known history of Internet offences;
- 459 Internet offenders (e.g. the possession, distribution, and/or making of indecent images of a person under the age of 18) and no known history of contact offences;
- 143 mixed Internet and contact offenders, consisted of 97 offenders who had a
 combination of contact and Internet index offenses and 46 offenders who had only an
 index Internet offence but also had known previous convictions for contact offenses
 against children.

In terms of demographics, Internet only offenders were again found to be more likely to be younger and less likely to be divorced/widowed/separated and to have children. Internet only offenders were more likely to have male and female victims than both contact and mixed offenders. Mixed offenders and Internet only offenders were under-assertive, however Internet only offenders had lower levels of impression management, self-deceptive enhancement and were less emotionally congruent with children than mixed offenders. Mixed offenders and Internet only offenders had higher levels of empathic concern than contact only offenders, with mixed offenders evidencing significantly more empathy, perspective taking and personal distress than both contact and Internet only groups. Elliott et

al. (2013) concluded that there are distinguishing factors between the Internet only, contact only and mixed offender groups, particularly in the domains of offense-supportive attitudes, identification with fictional characters, empathic concern, cognitive distortions associated with child sex and impulse control. It is also evident that whilst there are clear distinguishing variables for contact and Internet only offenders, the mixed offenders seem to have markers reflective of Internet only and contact only.

Babchishin et al. (2015) updated a previous meta-analysis Babchishin, Hanson and Hermann (2011), using 30 unique samples with participant numbers ranging from 98 to 2702, and this time accounted for crossover (mixed) offenders as well as Internet and contact offenders when grouped samples. A number of studies included in the meta-analysis have already been highlighted as having methodological problems associated with small sample sizes, treating the IIOC offenders as a homogeneous group, confounding the IIOC offender sample by including crossover offender's e.g. sexual luring offenders in this group, and not adequately considering prior criminal history when assigning participants to offender groups. Consequently, one must draw inferences about IIOC only offenders with some trepidation, however the meta-analytic study supports identifying trends in the IIOC research In comparison to contact child sexual offenders, IIOC offenders were again found to be younger, more educated, less racially diverse and more likely at the time of arrest to be employed. IIOC offenders were found to have more problems in developing committed relationships, and were found to have difficulties with sexually regulation and sexually preoccupation. Child pornographers had fewer problems with the criminal justice system throughout the lifespan in comparison to contact and mixed offenders, with a lower frequency of prior offences, including sexual and violent offences, less prior supervision failures, less access to minors, and lower risk ratings for general recidivism. Mental health issues were on the whole similar for all groups in this meta-analytic study, however key differences were found in that IIOC offenders and mixed offenders were more likely to have a paraphilia, in particular pedo-hebephilia and paedophilia respectively.

In comparison to contact and mixed offenders, IIOC offenders had less substance abuse, less childhood sexual and physical abuse and less family disruption whilst growing up. IIOC offenders had lower levels of severe mental illness, childhood sexual and physical abuse, and were less pre-occupied with the Internet than contact offenders. In terms of differences in psychological variables, IIOC offenders had less cognitive distortions, less victim empathy

deficits, higher general empathy, less emotional identification with children, more callousness but less interpersonal hostility, better social skills and more relational detachment. IIOC offenders also had lower self-esteem, were more under-assertive and less likely to engage in impression management and socially desirable responding than contact offenders. Interestingly this study revealed no consistent differences in impulsivity and selfregulation between IIOC offenders and contact offenders. Babchishin et al. (2015) concluded "offenders who restrict their offending behaviour to online child pornography offences are different from mixed offenders and sex offenders against children, and that mixed offenders are a particularly high risk group" (p. 58). This meta-analytic study confirms that we know a lot about the nature of IIOC offenders and empirical studies consistently reveal distinguishing demographic, clinical and forensic profiles representing IIOC offenders. However many studies in this meta-analysis had non-homogenous IIOC offender samples and likely included crossover offenders, online groomers as well as IIOC only offenders. Additionally the collecting aspect posited to be associated with IIOC offending is not really considered by Babchishin et al. (2015), with the exception that contrary to expectation Internet pre-occupation causes less problems for IIOC offenders compared to contact and mixed offenders.

A British study not included in the above meta-analysis was conducted by Aslan and Edelmann (2014), who explored the demographic and image characteristics of a sample of sex offenders engaged with community management services in London. They overcome the weakness noted above about problematic clumping of IIOC offenders, but only classified their groups on the basis of the index offence which may have inadvertently contaminated samples as IIOC may have had a past history of contact offences. On the basis of index offences, Aslan and Edelmann (2014) identified 74 IIOC only offenders, 118 child contact sex offenders and 38 mixed offenders who had been convicted of Internet-related offences and contact child abuse offline. Again this study found that IIOC only offenders were younger than contact sex offenders, and were not in committed relationship with approximately 50% being single or had never married. Significant differences were found for employment between the three groups, IIOC offenders had more stable employment and were less likely to unemployed than contact and mixed offenders. IIOC offenders were also better educated and more likely to have graduated from university or have a postgraduate degree than the other two offender groups. In terms of mental health issue there was no difference between the three groups in terms of document psychiatric history and substance abuse,

although IIOC only offenders experienced less childhood trauma than mixed and contact offenders. As noted in Elliott et al. (2013) victim choice was more diverse within the IIOC group who evidence a preference for both males and females, whilst the victim preferences for the other two offending groups were primarily females. In collecting terms this may reflect a difference with targeted collecting linked to a specific and well-developed interest, versus quantity driven collecting. Mixed offenders were more likely than IIOC and contact groups to use the IIOC to solicit stranger victims online, and this probably reflects sampling classification processes where online child groomers were placed in the mixed offending group. The mixed offender group reported engaging in more deviant sexual fantasy in comparison to IIOC and contact offenders, and had proportionately more SAP level 5 images depicting children involved in sadism and bestiality.

Using multilevel comparison of demographics characteristics and rates of recidivism Faust, Bickard, Renaud and Camp (2015) compared differences between 210 child contact offenders and 428 child pornographers who were released from a U.S. federal prison system between 2002-2005. Sample classification took into account prior criminal history, and the child pornographer group all had a history of one or more convictions for the possession or distribution of child pornography and no known history of child contact sexual offenses. Faust et al. (2015) found that child pornographers were significantly older at time of release, but as consistently noted in prior IIOC related research were more likely to be white, welleducated, married and employed at time of arrest. In comparing criminal history and mental health variables, child pornographers had a less substantial criminal history and received their first conviction much later in life, i.e., 24yrs vs 34 yrs. Child pornographers' substance abuse history and childhood sexual abuse history was less than child contact offenders, however child pornographers had proportionately more mental health treatment although this difference was not significant. Using survival analysis Faust et al. (2015) concluded that "rates of recidivism were significantly different between the two groups, with CP [child pornographer] offenders showing lower rates of re-offence for most measures of recidivism. When controlling for background characteristics and the timing of the event, CC [child contact] offenders were at much greater risk for having an arrest for a new crime or a nonsexual violent crime than CP offenders" (p. 460). This study confirms using a robust sample classification process, that IIOC only offenders are younger, white, more educated, employed, lower levels of mental health issues and less criminally inclined. Unlike previous studies this IIOC only sample were in committed relationships and often married. IIOC only offenders were again identified as lower risk of re-offending than contact offenders.

Like McCarthy (2010), McManus, Long, Alison and Almond (2015) specifically explored some aspects collecting behaviour in regards to IIOC. The UK sample consisted of 124 IIOC offenders with no evidence of contact offences and 120 IIOC offenders with contact offences (mixed). McManus et al. (2015) found that both groups were a similar age at the time of arrest, average age 42 years which does not support that previous trend that IIOC offenders are younger. IIOC offenders were less likely to live with children or partners with children, and as previously noted this IIOC group also had a lower frequency of prior general and violent offending. IIOC offenders were also more likely to admit culpability, partially or fully, for their offences once caught by the police. In terms of Internet activity and involvement with images, the IIOC offenders had larger accumulations of indecent images of children, with their collections incorporating proportionately more SAP Level 1-4 images and moving images. This contradicts McCarthy (2010) who found IIOC offenders has smaller accumulations that other sex offender groups. Mixed offenders more level 1 images which may reflect use of IIOC for overcoming child inhibitions, and both groups had on average small collections of the most extreme SAP Level 5 images. The whole sample preferred female imagery, although a quarter had a preference for both female and male imagery although it cannot be ascertain from the study whether this was specific to the IIOC only group as noted in previous research. No significant differences were found between the offender groups with regard to average age of the children depicted within the indecent images, however when the images were grouped in age ranges Mixed Offenders were significantly more likely to have images depicting the youngest children. McManus et al. (2015) concluded that there were key discriminatory factors that differentiated mixed offenders from IIOC only offenders, in particular level of access to children, previous offence history, sexual grooming and possession of IIOC that depict similar-aged victims. Essentially from a collecting perspective IIOC only offenders were more likely to be distinguished by the nature of their collections, in particular they would be larger, greater image variability and include less images of child erotica (SAP Level 1).

It is clear from reviewing the research that since Quayle and Taylor's seminal work that our knowledge of IIOC offenders has developed considerably, and this has occurred alongside practical advancements, such as changes to sentencing guidelines and developments of specialist treatments. For instance Middleton (2008) comment that a major adaptation to sex offender treatment for Internet offenders is the focus on a collecting aspect. I-SOTP Module 5 aims to help offenders recognise and respond appropriately to collecting and compulsivity issues, as well examining the function of joining pseudo-communities online and training alternative behaviours to meet these needs appropriately (p. 58-59). The hypothesis underpinning I-SOTP are that Internet sex offending is driven by collecting behaviour, compulsivity and being part of a deviant peer group. However, the review of the research above indicates that whilst practical initiatives place considerable emphasis on collecting, the empirical research has focused on identifying differences in the demographic, clinical and forensic profiles of IIOC offenders. Comparing IIOC offenders with contact child sex offenders and mixed offenders to determine risk of progressing to contact offending is another major area of investigation. Overall this research revealed that IIOC offenders appear to be a distinct group of sex offenders, and they are not a homogenous group rather there are IIOC only offenders and a group who possess IIOC to initiate online or offline contact with children. Failure to distinguish between groups of IIOC offenders is a major sampling issue which is likely to hamper consolidation and hypothesis generations. Nevertheless, trends are emerging in regards to IIOC offending, particularly about the nature of the people who may gather and accumulate IIOC or images of child erotica, the nature of their accumulations and patterns in desired images. These evolving trends and conclusions drawn from the above review of empirical and expert opinion papers are discussed below in the conclusions section.

Conclusion

IIOC offending continues to grow which in contrast to recent trends suggesting a reduction in contact child sexual offending. UK Sentencing Guidelines (2007, 2014), expert opinion papers, qualitative studies and quantitative studies all point to a collecting aspect in IIOC offending. IIOC classification systems, such as COPINE and ABC scales, mean the judiciary can define with greater accuracy the nature of images, their severity and illegality, as well as providing a system to classify the entire nature of IIOC offenders' accumulations. These IIOC classification systems are much more developed than those for legal image collectors, but parallel grading systems for legal collectibles, e.g. postcards. These externally derived classifications systems ignore the subjective meaning of the image to the offender, and collecting theory posits understanding the offenders perspective as to how he rates and categorises images in their collection may be more revealing of their sexual interest and risk

of re-offending than the number of different category A, B and/or C images. The emphasis on a possible link between size of IIOC accumulations and risk, may be a folly and is unlikely to be linear. Collecting theory guides that refinement and becoming expert is often part of the collecting process, therefore the most sophisticated IIOC offenders may have the smallest but most specialist collections which have been honed over years of engagement with IIOC and like-minded others. Access to resources and opportunity is also likely to moderate size, e.g. access to technology, paedophilic networks, privacy and time to search for images. Collecting research also points to other interesting areas in regards to the nature of collections which may be revealing about the IIOC offender's inner world, such as the idiosyncratic and subjective process of collection formation, the IIOC offender's personal narrative about the relationship between objects in their collection, a timeline of usage patterns and content changes as well as increases or decreases in collection size. When considering the nature of a collection the presence and meaning of secondary collections and their relationship to the primary collection may also be an avenue of exploration, e.g. the proportion of adult pornography to child images.

Empirical research seems to follow two main strands. Comparison studies examining whether IIOC offenders go on to commit contact offences, or whether IIOC only offenders represent a distinct group of sexual offenders (review Henshaw et al., 2015). Qualitative and descriptive studies make up the other strand, which focuses on gaining a better understanding of Internet sex offenders' unique experiences of IIOC offending and identifying their demographic, clinical and forensic characteristics. To date only three quantitative and no qualitative studies have specifically targeted the collecting aspect of IIOC offending for examination, notable quantitative studies include McCarthy (2010), McManus et al. (2014) and Long, Alison and McManus (2013). Nonetheless this literature review above provides a basis for identifying areas where knowledge generation is needed and also provides a springboard for hypothesis generation. That being said, it is clearly acknowledged that there are many measurement problems associated with cyber-enabled sex crimes and common problems across empirical studies, such as small sample sizes and sample classification issues which fail to take account of the heterogeneity of IIOC offenders. Inadequate operationalisation of collecting behaviour is also an issue, but expected as there are only eleven published studies examining collecting behaviour and a handful of theoretically disparate books/expert opinion papers.

Trying to explain IIOC offenders using typological classification such as Lanning (1992) and Krone (2004) has not been particularly fruitful, and has resulted in various typologies which place greater or less emphasis on specific collecting units or elements without any empirical verification or unifying collecting theory underpinning these descriptions. Typological work suggests IIOC offenders are not homogeneous, and within group differences reflected in the nature and quantity of images held, how the IIOC offenders go about collecting (e.g. secure or non-secure), and how they manage their images once acquired, i.e. securely, non-secure, organised or shared. Function from the perspective of typological studies is focused on whether the IIOC is used for personal sexual stimulation or as a support for contact offences.

Empirical research has revealed that IIOC offenders appear to be a distinct group of sex offenders, typically young single men who are working, better educated and less criminally inclined. At this time their relationship status has produced inconsistent findings, with some studies suggesting IIOC are often in committed relationships (McCarthy, 2010) and others indicating greater likelihood of being single (Aslan & Edelmann, 2014). There is some debate how prevalent childhood sexual abuse is within the IIOC offender group, but on the whole, they seem to experience less sexual and physical abuse, family disruption and childhood acting out than other groups of sex offenders. Other mental health issues also seem at the less severe level (e.g. anxiety, depression, mood disorder) in IIOC offenders compared with other sex offenders, and IIOC offenders consistently identified as less likely to suffer from substance abuse and severe mental illness. Whilst there is some inconsistencies, most studies highlight the prevalence of paraphilias within IIOC samples, in particular paedohebephilia and paedophilia, but this may reflect a bias created by court processes around ease of age determinism i.e. easier to secure a conviction when images are of younger children creating a bias in convicted samples for paedophiles. Even though the IIOC offenders seem to experience less mental health problems than other sex offender groups, higher contact with mental health services was an evolving trend in a number of studies (Bickard, Renaud & Camp, 2015) It is unclear what may underpin this finding but there may be IIOC specific mental health issues not typically assessed in sex offenders, such as collecting specific disorders like hoarding, Prader Willi, dementia, Asperger's Syndrome or Internet addiction. Sheldon and Howitt's (2007) and O'Donnell and Milner (2007) implicate pathological collecting as a possible explanation. Others have queried Asperger's Syndrome (Mahoney, 2009; Murrie et al., 2002) and compulsivity issues linked to sexual behaviour (Delmonico & Griffin, 2011) and Problematic Internet use (Taylor & Quayle, 2003).

In comparison to contact sex offenders, IIOC offenders appear to have lower self-esteem, greater difficult in establishing adult relationships, problems with social and emotional connection with other people, low assertiveness and have more sexual regulation issues (Henshaw et al., 2015). IIOC offenders were found by Beech et al. (2008) to be prone to fantasy, including deviant sexual fantasy, however they appear to have more empathy and less cognitive distortions than contact offenders. Many studies confirm Beech et al.'s findings, however some studies found IIOC offenders had IIOC specific cognitive distortions (Sheldon & Howitt, 2007). Qualitative research suggests these IIOC specific distortions may be related to self-defining as a collector, using collecting terminology to normalise IIOC offending and dehumanising children depicted in images. A number of papers, such as, Carr (2004), CEOP (2012) and McGuire and Dowling (2013) speculated about the role of Internet and technological advances in enabling IIOC offending. Research suggests that the Internet appears to offer opportunities to gather, trade and accumulate IIOC, as well as facilitate the individual's need to connect with potential victims and others with a sexual interest in children. Research consistently demonstrates that IIOC offenders use a multi-method approach to networking and garnering images (Wolak et al., 2013), however Internet usage amongst IIOC offenders and other sex offenders does not appear to particularly discriminating factor. Social networking with like-minded others appears to serve multiple functions which maintain and perpetuate the cycle of IIOC offending. Paedophilic social communities built around IIOC, seemingly allow for knowledge building, increased social status, advancing technical and searching skills, validates offending behaviour as normal and non-harmful, as well as enabling offending behaviour through, such as distribution, production, possession and selling IIOC. In essence engagement with the Internet and paedophilic social communities, for some IIOC offenders, helps the individual become 'expert' and build their IIOC collections.

Whilst we know about the psychological profiles of IIOC offenders, Henshaw et al. (2015) rightly points out we know very little about the specific risk factors for IIOC offenders. The level of sexual deviancy and risk attributed to IIOC offenders varies, and as yet the likelihood of sexual recidivism is undetermined as the likelihood of IIOC offenders going on to commit contact offences. Henshaw et al. (2015) draws our attention back to the seminal work of Taylor and Quayle (2003) and their commentary about the role of collecting and the

collection of IIOC in regards to understanding IIOC offenders. This chapter attempts to synthesis key studies and expert opinion on IIOC offending, and make sense of these findings in regards to the core collecting units of the collectible, collector and collecting, and the collecting elements of nature, function and process. Based on this review it is concluded that considerable research exists investigating the nature of the IIOC 'collectible', collection size and offender characteristics.

The functions of IIOC and collections have been speculated upon for many years, and although it is difficult to fathom, the findings are relatively consistent that IIOC serves multiple functions and for some they may serve to no sexual purpose at all. What this latter finding means is ambiguous, and could reflect denial, positive impression management, interest for financial gain only or as an interest in the collecting process.

The collecting process that IIOC offenders may go through in obtaining collectibles is well researched, in particular sources of indecent images and methods for trading and communicating. Collection management processes have also been examined, in particulars concealment, organising and cataloguing, however the dynamic nature of the collection in terms of refinement, patterns in collectible usage, changes in collection/sub-collections overtime and the nature of secondary collections. The psychological processes collectors go through in gathering and accumulating their desired objects has not been directly examined nor has IIOC offender's subjective experiences of this process. Some researchers offer ideas about theoretical models of the process of collecting, however, these are often used retrospectively to aid description, the models are not sufficiently critiqued and to date no one has empirically tested these collecting process models in regards to IIOC offenders. The most commonly cited theories are those stemming from museum studies (Pearce, 1998) and marketing (Belk, 1995), and surprisingly little consideration is given to application of the only psychological model of collecting process, that is McIntosh and Schmeichel's (2004) eight step cyclical model of collecting behaviour mentioned early in chapter one.

McIntosh and Schmeichel's eight step self-reinforcing cycle, may help us identify and understand how these offenders go about identifying sources to obtain IIOC, gathering IIOC and managing their accumulations of child images. Steps one to four could account for the preparatory/pre-offence behaviour identified in IIOC offending cycle. McIntosh and

Schmeichel (2004) write about stage one to four as deciding on what objects to collect, gathering information about the objects of interest, then thinking (fantasizing) about what they like and how to get it, and finally hunting for the objects they think they desire. For instance, preparatory behaviours noted in Internet sex offender and IIOC research may involve initiation through 'stumbling' upon IIOC from adult pornography sites, using Internet chat rooms for social communication and being sent an indecent image. This may then prompts finding out about search terms and methods of obtaining IIOC and possibly fantasy about the current 'ideal' image and then finally trying out new found IT knowledge and skills in regards to finding IIOC by deliberately searching of the current desired object. Step 5 of McIntosh and Schmeichel's model is actual acquisition of the object/item, and represents the offence which could be downloading existing images and/or making images or pseudoimages because they could not find what they wanted online. Step 6, McIntosh and Schmeichel call post acquisition, describes how the collector reacts to the acquired object and how they engage with it now they own it. With IIOC offenders Step 6 could reflect postoffence behaviour, and reflects the immediate function of the IIOC to the offender. What people do with the image or how they engage with the collected item, or how it functions for them once they have obtained it has been considered from a criminogenic perspective as primarily sexual gratification, to stimulate fantasy or to use in the solicitation of children or as a commercial sexual commodity to sell. Other research posits that the IIOC and the collection may also serve a non-sexual function, such as satisfaction with having ownership, having something to organise, something to share, to talk about or to be seen by others. Psychologically the sense of achievement in obtaining goals and purpose may temporarily alleviate emotional distress, enhance mood or self-esteem or could also help the individual gain an understanding of childhood trauma or act as a trigger to early memories (positive or negative). Step 7 according to McIntosh and Schmeichel's model is also a post-acquisition behaviour and relates to collection management and display of the acquired item whether publicly or privately. In terms of IIOC offenders this could represent distal post-offence behaviours such as cataloguing, ordering and showing the IIOC to like-minded others. Step 8 is the point at which the individual decides whether to continue collecting what they have recently acquired and thereby go straight to stage three, however if they decide that the object does not sufficiently fit their purpose or needs, then they may go back to drawing board and start at stage one or two again refocusing on what they want. Research on digital collecting suggests that because of technological advances in storage capacity there may be a failure to discard digital material even though he is no longer being used, a file and forget phenomena.

Finally many of the IIOC studies are group based and rarely target the hypothesized collecting aspect of IIOC offending. Qualitative research has studied Internet sex offenders who have IIOC, and reflected on a potential "collecting syndrome" (Taylor et al., 1999) and retrospectively applied collecting theory to explain their findings. However no one has reviewed the IIOC research by applying a collecting frame developed from a synthesis of current knowledge about human collecting behaviour. This analysis of IIOC research through a collecting lens helped identify gaps in knowledge in regards to the collectingoffending hypothesis, and some of these gaps are investigated by the two forensic studies in this thesis. Study two aims to explore IIOC offenders' subjective meanings of the images ('collectible') and accumulations ('collection'). Using a similar methodology to study one which aims to examine image collecting behaviour, also permits comparisons between those who collecting legal images and those who gather and accumulate sexual images of children, some of which may be indecent and illegal. Assuming some similarity in the collecting process between image collecting and IIOC offending, then a group based study using quantitative techniques will be undertaken. Study three aims to prospectively apply the ideas drawn from collecting theory to a sample of IIOC offenders, with a view to examining whether a collecting group can be identified based on McIntosh and Schmeichel's (2004) model of collecting process. If applicable, differences and similarities in the characteristics between the Collecting and Non-Collecting group will be explored. This study also aims to examine the pathological collecting-offending hypothesis suggested by Sheldon and Howitt (2007) and Murrie et al. (2002), by measuring hoarding and Aspergers related symptomology.

CHAPTER 3

Methodology

Introduction

This chapter lays out the research aims, and discusses the research design as well as providing the rationale for adopting a pragmatic philosophical position and for utilising a mixed method design. Common characteristics of mixed-method approaches will be discussed followed by an introduction to the specific research aims, research design and methods chosen for data collection and analysis.

Research Aims

This thesis aims to examine the collecting-offending hypothesis associated with child sex offenders who have indecent images of children. This research aims to examine the nature, function and processes involved in image collecting behaviour, and examine the personal meaning bestowed upon ownership of these images ('collectibles') and collections. The objective of the qualitative studies is to identify possible between group similarities and differences amongst those with accumulation of legal or illegal images. An exploratory quantitative study will be undertaken in order to more fully examine the hypothesis that there is a collecting element to offending involving indecent images of children (IIOC). A survey will be developed based on relevant sexual offending and collecting literature, with an aim to examine the core collecting units of nature, function and process with a sample of self-The findings from the studies will be merged to develop identified IIOC offenders. knowledge both about collecting behaviour and how this may relate to offending cycles of IIOC offenders. The findings from the study will aid boundary refinement in regards to any relationship between pathological and non-pathological collecting behaviours, and may also help legal decision-making, assessment and treatment of sex offenders with accumulations of indecent images of children.

Mixed Methods Research Design

A mixed methods research design was used, with epistemological underpinning of pragmatism. Pragmatism within research is the belief in doing what works best to achieve the desired result. A pragmatic philosophy allows for different models of enquiry and application of appropriate qualitative and quantitative methods in line with the developing

knowledge and research questions being addressed. Freedom to select what methodologies within the framework of a mix methods study was particularly pertinent when studying the poorly studied area of collecting behaviour. To date there are only 13 published studies, and no one has examined the specialist genre of the image collector. Furthermore, to date no one has systematically applied collecting theory to those individuals with accumulation of indecent images of children.

Mixed methods research is now considered by some researchers to be the third major research approach. A method which seeks to establish progressive attitudes to the use of methods from differing epistemological standpoints, such as, those within quantitative and qualitative methodologies and suggesting that these methodologies can work in unison to create clearer understanding of many research questions within a single study (Johnson, Onwuegbuzie & Turner, 2007; Creswell, 2015; Venkadesh, Brown & Sullivan, 2016). It is important however to understand what position these two methodologies subscribe to and their implications for use within a study.

The quantitative method is positioned within a positivistic paradigm. Within this paradigm, the quantitative methodology employs strategies that promote experimentation and survey of a particular question. The quantitative method of research is primarily related to gathering data in relation to frequency of occurrences within a given phenomenon (Watkins, 2012). Using statistical analysis, the quantitative method seeks to find generalisability within a behaviour or phenomena in any given population. However other researchers suggest, especially within qualitative research, that the positivist paradigm is not without its limitations when researching, as it neglects to consider the human experience of living a phenomena or experience and how that is open to more dynamic personal interpretation as well as interpretation of the researcher themselves (Creswell & Plano-Clark, 2007).

The positivist paradigm considers statistical measurement as measuring truth within any given phenomena. The qualitative methodology, in opposition, considers truth from a constructivist paradigm where truth is not static but is to be found in individual meaning given to their experience (Mayoh & Onwuegbuze, 2013). The data collected using qualitative methods are usually informed through analysis of the individual interview or group discussion on the personal experience of a given phenomenon and the interpretation of personal meaning within the experience of the phenomena (Creswell & Plano-Clark, 2007;

Florczack, 2014). One could consider this deeper analysis of individual meaning and experience of a given phenomenon as strengths, however, those who consider the positivist paradigm as the truth see weakness in the method primarily in terms of the use of small participant samples, subjectivity rather that objectivity and low generalizability (Creswell & Plano-Clark, 2007; Creswell, 2015).

Although the positivist and constructivist paradigms could be considered to be at odds with each other they have been considered by some researchers as potentially useful when combined within studies e.g. mixed methods (Creswell, 2015). These have been considered in terms of an a-paradigmatic position, multiple paradigmatic position and the single paradigmatic position (Hall, 2013; Tashakkori & Teddlie, 2003; Creswell & Plano-Clark, 2007). However it is pointed out that there are problems with taking an a-paradigmatic and multiple paradigmatic approaches. For instance, the a-paradigmatic approach rejects the use of any paradigm (Patton, 1990) but as Hall (2013) points out, no research can be considered paradigm free and it is the epistemological standpoint that instructs the researcher on how to gather and analyse data. Creswell and Plano-Clark (2007) suggests a multi-paradigmatic approach can be unclear as to what paradigms researchers should choose, what paradigms are most suited to their research question and how paradigms can be mixed. A major problem with adopting either the a-paradigmatic and multi-paradigmatic approach is that there seems to be little empirical research to support or validate their use (Hall, 2012; Betzner, 2008). A solution to the paradigmatic problems posed by both the a-paradigmatic and multiple paradigmatic approaches suggests the use of a single paradigm that could encompass both qualitative and quantitative methods of research. This pragmatic approach has received support from mixed methods advocates, such as, Feilzer (2010) and Johnson and Onwuegbuzie (2007). The philosophical position of pragmatism within mixed methods is that the researcher is free to select what methods of research they deem necessary to answer their research question and were the epistemological stance of both methods are considered legitimate and can offer a flexible philosophical approach to how one answers research question (Denscombe, 2008). Coming from this pragmatic world view the researchers' main emphasis is on the outcomes rather than prior conditions (Creswell, 2014).

Within my thesis, a pragmatic approach was considered most appropriate due to lack of research examining collecting behaviour, so there are little prior conditions to base understanding of the phenomena. A qualitative method allows the researcher to initially

explore the experiences of those who collect images, and also whether the experiences of image collectors and those who gather and accumulate illegal images (IIOC) offenders are comparable. Verification that the experiences of those who gather and accumulate illegal images parallels that of image collectors, would provide further support for the use of an exploratory quantitative study. A positivistic paradigm, and quantitative measurement, would provide a more systematic and replicable approach to measuring the aspects of collecting behaviours posited in pre-existing Internet sex offender/IIOC offender research. In turn quantitative measurement with a larger sample of IIOC offenders, would aid generalisation of the findings to other groups of IIOC offenders. Use of previously validated psychometric measures would provide a reliable and valid measurement of potential presence of mental disorders or developmental disabilities which helps examine whether any identified collecting behaviours are pathological or non-pathological in origin. The presence of mental disorder or learning disability has legal implications when determining culpability and sentences for IIOC offences, and reliable and valid quantitative measurement would be expected in a legal setting should expert testimony be requested. Overall it is the strengths of using both methods within one study that may help produce stronger results when the phenomenon in question is little understood. Mixed methods does not suggest that one method is better than the other, on the contrary, it sees the use of opposing methods as balancing their inherent weaknesses (Malina, Norreklit & Selto, 2011; Johnson & Onwuegbuzie, 2004)

Theory of mixed methods.

When employing the mixed methods approach Creswell (2003) identified three procedures: sequential, concurrent and transformative. Sequential procedures consider how the researcher chooses to expand their findings by building upon data gathered through one research method then expanding or elaborating on it using another research method. For instance, when there is little prior data an initial qualitative approach may offer the researcher a way of exploring this phenomenon, and then from these qualitative studies, quantitative method can be identified to measure relevant elements of the said phenomena that were found to be of importance within the initial qualitative study. When testing theories or concepts sequential procedures could begin with a quantitative methodology and then greater depth could be achieved by investigating concepts using qualitative methods (Creswell, 2003). Concurrent procedures relate to an integrated approach where both quantitative and qualitative data are gathered at the same time and were the results are integrated and analysed

together with a belief that the results will give a deeper and clearer understanding of a given phenomenon. Transformative procedure refers to the weight given by the researcher to the importance of each method within the study or what method was prioritised or whether the methods are given of equal priority (Creswell, 2003).

For this thesis, the qualitative and quantitative data were gathered virtually concurrently. In the absence of validated collecting measures which could be translated to an offending population to verify the presence of collecting behaviour, the qualitative studies involving image collectors and IIOC offenders with collections of images were started first. Initial interviews were contrasted to verify the presence of parallel behaviours between the two groups in regards to collecting processes and function. With some evidence confirming a collecting aspect to IIOC offending, an exploratory quantitative study was undertaken using a specially designed survey and a well validated psychometric measure of saving cognitions (Saving Cognition Inventory - SCI). The quantitative study provided a descriptive account of the nature, function and processes associated with gathering and accumulating indecent images of children. Quantitative measurement of the presence and severity of mental disorders which can be associated with collecting where also assessed using two diagnostic screening instruments the Asperger Quotient (AQ10) and Saving Inventory Revised (SI-R) for hoarding disorder. These diagnostic measures where administered alongside the other quantitative measures.

How an individual researcher decides to analyse and connect the findings while using positivist and constructivist paradigms within one study depends on what they want to achieve. Rossman and Wilson (1985) identifies three ideas to consider, that is

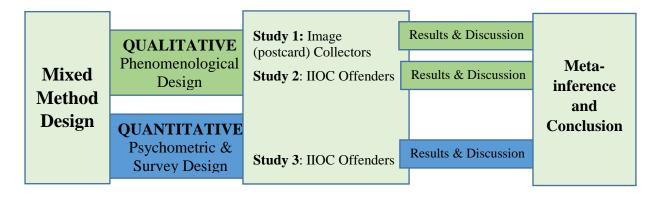
- 1. Collaboration: Is the researcher seeking to refute established results?
- 2. Elaboration: Is the researcher's intent to give meaning or detail, adding richness to the results
- 3. Initiation: Is the researcher intent on explaining the method of investigation and recommending areas for further exploration

Mixed method design.

In this thesis, a concurrent elaborative design was used, where qualitative and quantitative data were given equal priority, were collected and analysed concurrently and then the

findings merged in the final conclusions to give meaning and detail to our understanding of collecting behaviour and the collecting-offending hypothesis associated with IIOC offending. In the two Interpretive Phenomenological Analysis (IPA) studies, semi-structured interviews were used to explore and compare the collecting behaviour using by image collectors and offenders with IIOC. Additional breadth was added to the qualitative studies through a survey and psychometric study which examined the nature, function and process of collecting behaviour in IIOC offenders and also investigated the presence mental disorders which may be associated with problematic collecting. The reason for collecting qualitative data using image collectors and a forensic sample with IIOC was to compare and corroborate data from the two samples and to bring greater insight to our understanding of collecting behaviour, and in particular the hypothesis that some Internet sex offenders may be engaging in a form of Verification of parallel experiences between the collecting illegal image collecting. behaviour of legal and illegal image collecting would offer further support to the researcher when implementing an exploratory quantitative study that measured IIOC offenders gathering and accumulating behaviour. This quantitative phase integrated existing knowledge from the Internet sex offender literature with prior research on collecting behaviour, to produce an IIOC offender survey and psychometric study. The specially designed survey and selected saving psychometric permitted a more systematic examination of the nature, function and processes associated with collecting in a sample of IIOC offenders. A mixed methods approach also provided an opportunity to triangulate the data within the discussion section of the thesis and gain a more complete picture of the potential collecting aspects of IIOC offending as well as increasing our understanding of collecting behaviour.

Figure 2: Mixed Methods Design



Phase I: Qualitative Studies (Study 1 and 2)

Rationale for Interpretive Phenomenological Analysis (IPA)

IPA is an inductive qualitative research method considered a useful analytical approach utilized by psychologists to understand the experiences of individuals and how they understand the world. IPA as a qualitative research methodology gained prominence through the work of psychologist and founder of IPA Jonathan Smith in the 1990s. IPA as a methodology is underpinned by two main philosophical and epistemological standpoints, which include phenomenology and hermeneutics with a focus on an idiographic approach to establish knowledge.

Phenomenology originated with Edmond Husserl in the 1890s when he attempts to construct a philosophical science of consciousness. Smith, Flowers and Larkin (2009) state that IPA is the approach to the study of human experience, "especially in terms of things that matter to us and which constitute our lived world". It is also concerned with how individuals talk about and perceive objects and events, suggesting that the founding principle of phenomenology inquiry is that "experience should be examined in the way that it occurs and on its own terms" (p. 11-12).

Hermeneutics deals primarily with the theory of interpretation. Originally hermeneutics was an approach to the interpretation of the bible, other religious texts and historical documents, in order to gain a more authentic basis of understanding our mean making. A main concern for the hermeneutic theorists are how do we go about interpreting texts and why are we interpreting them. Moreover, can we interpret the original meaning and purpose of the text in context of when it was produced, that is can mean making from the past be reproduced with the same meaning in the future. Smith et al. (2009) states that as IPA is concerned with examining how a phenomenon appears, the analyst is also implicated in facilitating and making sense of this appearance (p. 22). Smith (2003) calls this double hermeneutics, where interpretation in IPA is a two stage process that involves not only the participant trying to make sense of their world but at the same time the researcher is also trying to make sense of the participant trying to make sense of their world.

In summary, phenomenology and hermeneutics are the two major epistemological underpinnings of IPA whereby phenomenology deals with the way things appear to us

through our experiences, while hermeneutics as we understand them today seeks to educate us to how we as researchers interpret or make sense of individual experience (Smith & Eatough, 2007). When we understand the epistemological basis of our approach it allows us to think about appropriate research objects. In IPA, the main approach to the research object is idiographic. The idiographic concerns itself with the importance of studying the particular rather than the nomothetic approach of mainstream psychology which suggests human behaviour can only be understood through the study of groups. Smith et al. (2009) states that IPA's commitment to the particular operates on two levels; firstly, there is a commitment to the particular in the sense of detail and therefore depth of analysis which must be thorough and systematic. Secondly; IPA is committed to understanding how particular experiential phenomena, such as events, processes and relationships, have been understood from the perspective of particular people in a particular context (p. 29).

Although we understand the epistemological, theoretical stances and idiographic nature of knowledge gaining, it is also important to understand how IPA works in the real world this is particularly important when it comes to participant numbers, data collection and analysis of the data. IPA has been deemed an appropriate methodology for a single case study, although there have been many IPA studies which have sample sizes up to 15 individuals and over (Smith et al., 2009). Smith and Eatough (2007) argue that, "there are two key advantages to carrying out a single person case study. First, a great deal is learned about that particular person and their lived experience of the phenomena under investigation and it is also possible to focus on connections between different aspects of the participants account" (p. 328).

Data that are appropriate for IPA can be gathered in numerous ways such as from diaries and personal accounts. Smith (2003) states that, "probably the best way to collect data for an IPA study and the way most IPA studies have been conducted is with the semi structured interview" (p. 55). A semi structured interview is a set of questions that guide the interview rather than dictate how the interview should go. Since phenomenological research requires the researcher to enter the world of the participant, "it is extremely important that the questions posed are open ended and non-directive, their sole purpose is to provide participants with an opportunity to share their personal experiences of the phenomena" (Willig, 2001, p. 54). To this effect, Smith and Osborn (2003) state that this form of data collecting helps establish rapport with the participant, and this makes ordering of questions less important and frees the interviewer to probe interesting areas that arise and allows the

interviewer to follow the participants interests and concerns. In effect the researcher recognises the participant as the expert in a given phenomenon. As a method, IPA has its limitations, and Willig (2008) suggested five major limitations of the IPA method:-

- 1) Talking about an experience may not be describing the experience;
- 2) Availability of language for a participant means language precedes an experience and thus shapes the experience itself;
- 3) It may result in excluding participants who do not have appropriate language skills and thus incorrectly point to their experiences being dismissed;
- 4) An exclusive focus on appearances limits out understanding of the phenomena;
- 5) It is concerned with "cognition" from a Cartesian perspective which may be incompatible with certain aspects of phenomenological (p. 68).

Smith et al. (2009) addresses the limitations, in particular their model of cognition within IPA, asserting it is "much broader than that which is explicated within mainstream cognitive psychology. The cognition we are talking about includes the range of layers of reflective activity which make up part of everyday experience and which therefore form the focus of phenomenological enquiry. It also includes the additional formal reflection and other activities conducted by researchers as they carry out Interpretive Phenomenological Analysis" (p. 193).

Quality of IPA method.

Given that the reliability and validity of quantitative studies can be scrutinised, similar principles should be applied to qualitative research to assess the quality of qualitative research. Yardley (2000) identified four principles that is sensitivity to context, commitment and rigour, transparency and coherence, and finally impact and importance.

Smith et al. (2009) discuss how Yardley's principles fit with IPA. Sensitivity to context is seen as being an initial focus of the researcher where they try to understand the sensitivity through close engagement with the idiographic and the particular. It also includes deep understanding of the nuances of the two way engagement of the interview process, where conducting a good interview requires "close awareness of the interview process" and showing empathy to allow the participants to feel at ease. It also relates to how the researcher recognises "interaction problems and have the ability to negotiate ... power plays" where "research expert meets experiential expert" (p. 180). Sensitivity is also a part of the analytic

process, as Smith et al. point out "making sense of their experience requires immersive and disciplined attention to the unfolding account and what can be gleaned from it" (p. 180).

Commitment to rigour can be demonstrated in a number of ways. Being attentive to the participant, the care with in depth interviews and analysis undertaken, takes commitment as well as personal investment. Rigour will also be evident in the rationale for using IPA as well as the "appropriateness of the sample to the question at hand" which should be as homogenous as possible (Smith et al., 2009, p. 181). Within the interview it is imperative that one is consistent when probing information that seems important to the issue. As for analysis itself, rigour is demonstrated through systematic and thoroughness of IPA processes. In IPA there must be idiographic engagement, analysis must be interpretive and it would be expected that themes that are observed within the data, for multiple participants, must be evidenced through extracts illustrated within the study. When using a small sample, e.g. 3 participants, then Smith et al. (2009) suggest all participants should be represent with quotes. With larger samples, the quotes that best explain an issue should be used (p. 81-82).

Yardley's (2000) principle of transparency and coherence are also explored by Smith et al. (2009) in terms of IPA, were transparency refers to how clearly the stages of the research process are described. Coherence is seen as "do themes hang together logically, are ambiguities or contradictions dealt with clearly. Also does the study follow the theoretical assumptions of IPA rather than more closely to a different qualitative method?" The reader should be aware that they are positioned as attempting to make sense of the researcher trying to make sense of the participants' experience (p. 182-3). Yardley's final principle impact and importance states that "however well a piece of research is conducted, a test of its real validity lies in whether it tells the reader something interesting, important and useful" (p. 183). It is this principle suggests Smith et al. (2009) that the IPA researcher should be aspiring to.

Validity of the research can be undertaken via an independent audit where another researcher using research files can follow the pathway the researcher has taken to get to their results. Validity can also be checked by the researchers' supervisor, who can conduct mini-audits during the research process. This can be undertaken by the supervisor examining whether coded transcripts, initial codes and themes are corroborated within the data, as well as checking whether the researcher is following the IPA method. The audit process means the

supervisor can offer ideas on what is valid or important or what is going wrong, and what may need to be changed or thought of more deeply (Smith et al., 2009).

Studies 1 and 2 aim to follow Yardley's principles in line with Smith et al.'s (2009) view of how these should be considered while undertaking and IPA study. Sensitivity to context was considered very important by the researcher as the nature of the interview was a very sensitive issue, which concerned the sexual abuse of children in terms of accumulating IIOC. The researcher had to consider how asking and probing offenders about their behaviour may affect them psychologically or potentially harm the offender. This was considered to be less of a difficulty with legal collectors as they collected in a socially acceptable way. At all times during the development of the semi-structured interview the researcher was aware of how the questioning and probing could affect the participants and how it may affect responses. However, given the nature that the study was examining participants collecting behaviour the questioning was more or less concerned with that behaviour and their experience of collecting. The researcher also maintained that at no time should any personal judgement, toward those participants who had committed an offence, be driving the researchers questioning or probing. In terms of rigour, analysis of the data sensitivity would be undertaken through giving considerable time over to transcribing the data verbatim and also giving considerable time when analysing the data and developing themes with focus on the interpretation of participants' experiences. Much consideration was given to gaining homogeneous groups for studies 1 and 2 as they could answer research questions posed with some clarity. After scrutinising various other collecting groups the samples chosen were discussed and agreed by my supervisors. In terms of transparency and coherence all steps undertaken were discussed in depth and agreed upon by my supervisors. It was agreed that the semi-structured interview questions related to the research questions, that the samples chosen where appropriate in terms of size and homogeneity, and that the themes produced through analysis of the data made sense in terms of what participants had described. In terms of impact this thesis explored a topic that has received little attention and offers a novel approach to think about collecting behaviour and potential collecting aspects linked to IIOC offending.

Use of IPA.

Little research has been undertaken that considers collecting behaviour within "normative" collecting circles and none that explores image collecting. When confronted with limited research, Interpretive Phenomenological Analysis is a suitable framework to explore the collecting phenomena and the specialist collecting genre of postcard image collecting and sex offending involving indecent images of children.

Other qualitative methods such a thematic analysis and grounded theory were considered for use. Unlike IPA, Thematic Analysis does not give a theoretical or epistemological standpoint for why the researcher collected the data or how the researcher should analyse the data rather it represents primarily a method of collecting and interpreting data (Braun and Clarke, 2006). Grounded Theory, with Smith et al. (2009) see as an alternative to IPA, was not thought appropriate for undertaking the qualitative research as the researcher was not trying to build a theory of what collecting is but trying to explore collecting behaviour. Willig (2001), states that IPA differs from grounded theory as "it seems more suitable when trying to understand individual experiences rather than grounded theories ability to explain social processes", and allow researchers "more room for creativity and freedom" (p 69). In agreement Smith et al. (2009) suggests that, whilst seeing overlap between IPA and grounded theory, the IPA method is likely to "offer a more detailed and nuanced analysis of a lived experience especially when samples are small and the emphasis is on the convergence and divergence between participants (p. 201-2). Pietkiewicz and Smith (2014) suggest that within IPA it is the homogeneity of the sample that is aimed for and proffer that rather than homogeneous samples, grounded theory "engages in constant comparisons and seek exceptions or odd cases which helps them produce a multi-dimensional dynamic theory of how different factors affect human behaviours (p. 365). To answer my research questions the small volunteer sample needed to come from a homogenous group, they being image collectors as well as those who gather and accumulate IIOC. IPA was subsequently deemed more suitable from this perspective.

Sampling

Proponents of IPA such as Smith (2004) and Smith et al. (2009) proffer that sampling must follow the qualitative paradigm whereby the sample is purposive because that sample will have insight into their experience of a given phenomenon and that "they represent a

perspective rather than ran a population" (p. 49). They also suggest that the sample should be as homogenous as possible so the questions posed by the research topic will have relevancy and therefore more clarity in responses. A purposive homogeneous sample allows for the study and analysis of any "patterns of convergence and divergence which arises" (p. 50). In terms of sample size Smith et al. (2009) suggest that there is no right answer as there are many time constraints and budget constraints. To permit "development of meaningful points of similarity and difference" (p. 51), a rule of thumb recommended by Smith et al. (2009) was between 3 and 6 participants for those with little experience, while those with experience may undertake studies using 3 participants.

Prior to reviewing the literature, it was assumed that, collectors could be considered a homogenous group that may potentially relate the overall experience of the behaviour. Collecting theory and research however indicated that collectors are not a homogenous group (Pearce, 1998; Belk, 1995; Martin, 1999), and there may be gender, ethnic and age differences in terms of what is collected, its function and permanency of the behaviour (Martin, 1999). In essence treating collectors as homogeneous, one would have to consider a classic car collector was having the same experiences as a teddy bear collector. There are also potential within group differences, as some people are devoted to sub-categories of a particular collecting genre and they may be having a different experience that those who collect generally within that genre.

For the purposes of Study 1 in relation to Study 2 (IIOC accumulators) which sought to compare collecting behaviour, the only way to achieve this was to select a sample whose collectibles fit within a similar genre, i.e. image based collectibles. After debate, discussion and research a number of image based collector groups were considered as a potential parallel sample, such as legal pornography and photograph collectors. Unfortunately, these potential samples were very specialist and inaccessible, resulting in too few people to sample. After debate on the appropriateness of a parallel sample, it was agreed with my supervisors that a postcard collecting sample may be appropriate as they are a large group of image collectors who were accessible at publicly advertised postcard fairs. Men were solely sampled in study one as this reduced the potential of confounding effect of male and female differences in collecting (Martin, 1999), and also males were the intended focus in the IIOC offender sample as there are low numbers of convicted female IIOC offenders. This group had image based collectibles and were also part of a specialist collecting community which supported

their preferred interest. This study is the first empirical investigation of this specialist collecting population, i.e. postcard image collector.

The sample for Study 2 was more easily identifiable and to recruit, as they were imprisoned and convicted of sexual offences. However due to legal and ethical restrictions prison authorities could not provide the names, nature of index offence and criminal histories which would have permitted identification of a more homogeneous IIOC only offending sample. To overcome this issue, the sample had to be recruited using a self-identification process in which prisoners self-reported as having had accumulations of IIOC and also volunteered to take part in the study.

Although the samples in both groups were purposively targeted, recruitment was on a voluntary basis. Coolican (2014) suggest that as volunteers the sample can be considered as involving willing participants who may be open to questioning, however use of a volunteer sample may be problematic due to participant bias. That is volunteers are potentially taking part because they are the most experienced, the most involved, have greater understanding and like to share their knowledge and experience. They may not include those image collectors who do not want to take part in interviews due to reasons, such as shyness, inexperience and under-confidence in interview situations or because the behaviour may be socially unacceptable. Volunteer samples therefore may not be representative of the overall population of image collectors or IIOC accumulators. With these volunteer samples having potential bias it may be concluded that findings may not represent the overall research phenomenon and experience of individuals who take part in it. For instance within the postcard collectors sampled from study 1 those who volunteered to be interviewed were invariably very experienced with many participants having expertise.

Study 2 was also problematic as the participants self-identified as IIOC accumulators, however there was no way to verify this other than their self-report and self-report of quantities within their collection. Heterogeneity is a potential concern with this study, as some had contact offences and others did not, there was variation in the nature of IIOC gathered and accumulated however all participants had IIOC and some also had secondary collections of legal images of children and adult pornography. As before, study 2 also had a volunteer sample with similar concerns to participant bias outlined in regards to study 1. An additional concern raised when researching offending populations is the potential for

impression management, socially desirable responding and cognitive distortions which may minimise the extent of IIOC offending. It was decided not to include a measure to check for deceptive responding, rather it was made clear to all participants prior to data collection that choosing to take part or opt out of the research would have no implications for criminal justice processes, such as progression and release. It was felt that being open about this upfront would negate the potential for ulterior motives in participating in the research. Minimisation could not be adequately controlled for in the absence of prison file information, and it is possible that prisoners over- or under- reported their IIOC offending.

Sample 1: Postcard collectors' demographic information.

A sample of postcard collectors recruited via a collectors' fair in a UK city, volunteered to be interviewed about their collecting behaviour. After distributing flyers which addressed the study, a volunteer sample self- identified as postcard collectors and consented to participate. The sample included ten white, English adult males with an age range of 46 to 79 years. Authorisation to approach attendees at the postcard fair and interview the sample was given after initial agreement with the fair organisers. Demographic information of the postcard sample is presented below.

Table 5: Demographics Image (Postcard) Collectors

Participant	Age	Nationality	Marital status	Qualifications	Occupation	Collection Size
1	55	White British	Married	Degree	Shopkeeper	12,000 approx.
2	52	White British	Married	High school	Salesman	6,500 approx.
3	46	White British	Married	Postgraduate	Lecturer	7000 approx.
4	79	White British	Married	Postgraduate	Lecturer	3000 approx.
5	71	White British	Married	Degree	Engineer	10,000
6	59	White British	Never Married	High school	Retired	3,000 approx.
7	69	White British	Separated	Apprenticeship	Teacherretired	Too many to count
8	72	White British	Married	Apprenticeship	Builder	3,000 approx.
9	75	White British	Never Married	School certificate	Draughtsman	8,000 approx.

						Had 60,000
10	61	White British	Married	Apprenticeship	Model soldier maker	12,000 approx.

Sample 2: IIOC Offenders demographic information.

Out of the 550 prisoners contacted seven prisoners self-identified having IIOC and were willing to take part in interviews concerning this behaviour. The volunteer sample consisted of seven white English males with an age range between 41 and 61 years. The IIOC sex offenders who did not take part were either offenders who did not gather and accumulate IIOC or did not want to be interviewed about their IIOC offences. The sample was identified through distributing invite leaflets and consent forms throughout the whole prison population (n=550), via wing officers. Distributing leaflets to all prisoners was considered the best way to avoid offenders being identified to the rest of the prison population as IIOC offenders and thus avoiding any potential negative impact in regards to being seen as a child sex offender. All prisoners were asked to return the consent forms whether signed or not to the wing officer who would then return them to the researcher at the Psychology Department. Demographic information of the IIOC offending sample is presented below.

Table 6: Demographics IIOC Accumulators

Participant	Age	Nationality	Marital status	Qualifications	Occupation	Collection Size
1	41	White British	Divorced	Apprenticeship	Company Director	51,500 app
2	61	White British	Divorced	High school	N/A	400 app
3	54	White British	Single	Apprenticeship	Lathe Operator	hundreds
4	40	White British	Married	Degree	Salesman	30 app
5	57	White British	Single	High school	Warehouse	100 app
6	59	White British	Married	High school	Retired	3000 app
7	48	White British	Divorced	High school	Lorry Driver	6,500 app

Interview Schedule Development

This section details the data collection schedules used in the two qualitative studies, examining image (postcard) collectors and then the study examining IIOC offenders. Interview schedules were developed in accordance with IPA principles outlined by Smith et al. (2009), which considers the interview schedule of major importance to the researcher and the research question because "it requires us to think explicitly what we expect the interview to cover" (p. 58). They proscribe that development of the interview schedule must "facilitate a comfortable interaction with the participant, thus enabling them to provide a detailed account of the experience under investigation" (p. 59). Questions should be open ended and expansive, in so much as it allows the participant to answer the question more deeply. Initial questioning should not be deep probing questions, rather questions that allow the participant to settle into the interview and share easily retrieval factual information.

Smith et al. (2009) suggest that the schedule should be set up in a way that the researcher would expect or like questions to be answered. Setting up a schedule and understanding the elements within it allows the researcher to "set a loose agenda [topics that they would like to discuss with the participant]" (p. 58), but also in a way that will not impede answering the research question during the analysis phase. They suggest that what will impede the analysis is lack of probing which may reflect low engagement with response and the participant themselves, and therefore flimsy data that offers little for analysis. It is part of the interview process that the researcher understands when to probe and when to hold back and let the participant speak about their experience. As well as helping the process become comfortable for participants the schedule development should allow the researcher to consider how we might deal with any difficulties, such as problems with question phrasing or ethical problems that may arise due to sensitive questions and how the participant's reaction may be dealt with. Just understanding what you as the researcher are asking, speculating on participant response and understanding this when developing the schedule allows for freer discussion and the confidence to listen to what the participant is saying.

Smith et al. (2009, p. 61) describe how an IPA schedule may be constructed, suggesting that the research question itself should not be asked but the researcher should develop a set of questions that allow the researcher to answer the overarching research question. The interview questions should be related to topic linked to the overall research question. e.g.

within this thesis the schedule questions where themed around nature, function and process of collecting behaviour, with similar stem questions for postcard image collectors (study 1) and individuals who accumulated IIOCs (study 2). They suggest that the topics should be in logical sequence, and for this thesis they were sequenced in terms of nature, function and process of collecting. So in essence the study was exploring, logically, what have you got, why have you got them, how and where did you get them and what do you do with them. Although, Smith et al. (2009) advocate open questions within the topic and probing questions, they suggest that more concrete probing questions may be needed at times when the participant may not understand what's being asked of them. Finally they suggest that the interview schedule development should be discussed with a supervisor, piloted and schedules re-drafted after appropriate amendment have been offered

Studies 1 and 2 Schedule Development

The above methods proscribed by Smith et al. (2009) were undertaken for Study 1: Postcard Image Collectors and Study 2 IIOC accumulators. The research question related to exploring the collecting behaviour within a sample of image (postcard) collectors' and a sample of IIOC image accumulators. Topics such as nature (e.g. what the accumulated items were), function (e.g. what was personally important about collecting them) and process (how they went about getting them and what they did with them after acquisition) were considered viable topics to examine the research question. These were identified from the literature review as core elements relating to collecting behaviour. The questions also included possible prompts as guidance for the researcher as well as the participants. These prompts would be asked in an open-ended manner to help elucidate further participant experiences when they felt unable to discuss a topic in depth and also enabled the researcher to explore interesting points within the developing narrative. All questions were developed from normative collecting literature and compiled from theories proffered researchers such as, Belk (1995), Pearce (1996) and Martin (1999). Questions and prompts relating to McIntosh and Schmeichel's (2004) "Model of Collecting" were also considered important to understanding the actual process or steps that where potentially taken by both samples. Their collecting model relates to how collectors research and plan to get items, how they search for objects, actual acquisition, post-acquisition practices and collection management. McIntosh and Schmeichel's model is the only psychological model outlining the process of collecting.

Pilot testing.

In order to establish whether the interview schedules were fit for purpose a pilot was undertaken with a male and female who collected postcards at a fair in a UK city. This was undertaken only after the interview schedule was reviewed by supervisors who provided consultation on questions that may be double barrelled, did not make sense or were overly complex or not open ended. Overall the pilot and think aloud processes in supervision help develop an interview schedule which seemed to generate in depth information about a person's experiences of collecting postcards.

As I could not gain early access to IIOC image accumulators due to some restrictions associated with contact, the schedule for the IIOC sample was piloted with my supervisors which included the head of psychology in the department were the offender sample was recruited, another experienced forensic practitioner and an experienced forensic researcher. Again this was carried out to consider if the questions were viable with this sample, as well as thinking about how certain questions may effect participants. It also helped the researcher to consider how the original image collector schedule may need to be altered for the IIOC sample because we were not sure if IIOC accumulating behaviour is similar to normative collecting behaviour. It was decided that within the IIOC accumulator interview process that collecting terminology would not be explicitly mentioned by the researcher as it may influence the data, and could increase the chances of evoking cognitive distortions which may also affect the reliability of the data (Sheldon and Howitt, 2007). Overall the research question was the same for both samples and the topics in the interview schedule and sequence of nature, function and process, where similar for both groups. To avoid any misunderstandings, the nature questions and prompts for both groups encouraged the participants to focus on their primary collections linked to postcards and IIOC.

Data Collection

Study 1: Image (postcard) collector.

Collection of interview data from the participants for this study was undertaken only after it was passed for ethical approval by a UK University and only after prior consent was given by the organisers of a large image and postcard collectors fair where the participants would be recruited. It was explained to the potential participants that the research sought to explore through interview their understanding of what they collect (Nature), why they collect what

they do (Function) and how they collect (Process). Participants were informed of the anonymity and confidentiality of any data taken from interviews and that the interviews were being undertaken that day. After informed consent was given to take part the participants were interviewed in a large private office within the building where the collector fairs were happening. The semi-structured interviews lasted between 45-75 minutes. All participants were also provided with basic a demographic information form to fill out. The interviews were conducted between March 2012 and April 2013 and all interviews were recorded via Dictaphone and transcribed verbatim. After each interview, all participants were debriefed and were asked if they had any questions concerning the interview and associated processes.

Study 2: IIOC accumulators.

Collection of interview data from the participants for study 2 was undertaken only after it was passed for ethical approval by a UK University and approved by the National Offender Management Service (NOMS). It was explained to the potential participants that the research sought to explore their own understanding of the nature, function and processes within their IIOC accumulating behaviour. Participants were informed of the anonymity and confidentiality of any data taken from interviews. After informed consent was given the participants were interviewed using in a private office within the prison building. The semi-structured interviews lasted 45 minutes to 2 hours. All participants were also provided with basic a demographic information form to fill out. Furthermore, it was made clear to them that during interview if they divulged any information that represent past illegal activity or future harm to individual that that information would have to be passed on to the prison authorities. The interviews were conducted between May 2012 and September 2013 and all interviews were recorded via Dictaphone and transcribed verbatim. After each interview, all participants were debriefed and were asked if they had any questions concerning the interview and the processes involved.

Data Coding and Analysis.

Data analysis for both IPA studies followed the criteria for analysis set out by Smith et al. (2009). The rationale for use is stated earlier, and IPA was considered the most appropriate method to answer the research question which sought to explore the experience of normative collecting behaviour within an image sample and the potential for similar behaviours within a sample of IIOC accumulators. Smith et al. (2009) propose six steps that should be undertaken during IPA analysis, that is:-

- 1. Reading and re reading the data;
- 2. Initial noting;
- 3. Developing emergent themes;
- 4. Searching for connections across emergent themes;
- 5. Moving to the next case;
- 6. Looking for patterns across cases.

The first step within analysis is reading and reading the transcript data until it is understood what the participant is saying about their overall experience and in effect this allowed the researcher to become immersed into the inner world of the participant. Ultimately, rereading the transcript also allows for missed ideas and insights to emerge that would have been missed (Smith & Osborn, 2008).

Initial noting of participant accounts was undertaken within each separate case. One at a time each transcript was again read and during this points of interest, keywords, phrases and sentences were highlighted and commented upon at the side margins of the transcript and described the concerns of the participant which may apply to areas of experience, such as, "relationship's, processes, places events, values and principles" (Smith et al., 2009, p. 83). Undertaking this allowed the researcher to make initial interpretations of what the participant had said, which could be descriptive as well as conceptual, and allow for initially noting of similarities, differences and contradictions within the transcript.

Developing the emergent themes was a move away from the transcript itself and dealt primarily with the initial annotations and involved transforming the initial notes into a more abstracted form of related words and phrases. This was undertaken in a way that kept a clear relationship between the abstraction and the initial annotation, and was still clearly relatable to the initial noting. Smith and Osborn (2008) noted that the skill at this stage is finding expressions which are high level enough to allow theoretical connections within and across cases but which are still grounded in the particularity of the specific thing said (p. 68).

Searching for connections across emergent themes within each case in both study 1 and 2 involved looking how the emergent themes fitted together. This allowed the researcher to observe what were the most interesting and important themes. Smith et al. (2009, p. 96) offered the researcher a method to search for connections across emergent themes through

listing them chronologically as they appear in the annotated transcripts were. They suggested that the researcher should "eyeball the list and move themes around to form clusters of related themes. Some themes act like magnets pulling other themes towards them" (p. 96). It is when emergent themes are clustered that the overall relationship between clusters of themes can be established and grouped under a superordinate theme that describes the cluster as a whole.

In terms of moving on to the next case the researcher repeated the above processes, however, it was seen as important to consider each new case as having no relationship to the previous case, with the new case may come new insights into their experience. It is this making of individual accounts as important in their own right that represents the idiographic nature of IPA. The idiographic nature of IPA was considered extremely important to this research as little is known about the nature, function and process that may be involved with image collecting. Finally the researcher looked for patterns across all the cases to establish which superordinate themes from each case related to other cases and this highlighted themes that were important to all cases and allowed further to establish the most suitable superordinate themes for the overall sample. In accordance with Smith et al. (2009) these final superordinate themes were presented within Tables seven (p. 145) and eight (p. 170). As stated earlier, rigour was established while undertaking analysis, coding and formulating the final super-ordinate themes, through presentation and scrutiny by my supervision team.

Phase II: Quantitative (Study 3)

A survey and psychometric study was conducted to investigate the collecting behaviour of sex offenders who gather and accumulate sexual images of children and are currently incarcerated at a large British sex offender prison.

Sampling

From a legal perspective prisoners with sex offences that involved children and IIOC could not be personally identified to me by prison authorities, therefore I had to rely on prisoners' self- identifying, volunteering and completing a survey. To do this the survey was sent to (n=560) prisoners no matter what their sexual offence. Ethically to protect the identity of those prisoners whose offences involved children, IIOC secure survey packs (with consent forms, survey and psychometrics) were distributed to a sample of 560 male sex offenders in

the prison and all questionnaires whether completed, or not, were to be returned to the wing officer. Due to the restrictive nature as well as being a volunteer sample, the researcher could not establish or control for the type of IIOC offender that would respond. As referenced for studies 1 and 2 volunteers sample do have their advantages in that they may be a co-operative and willing sample, however they may not be a representative sample of IIOC offenders. Overall it would have been more suitable if the sample were IIOC only offenders as this type of sample would probably more closely relate to processes involved in image collecting. After completing the sampling, it was discovered that both IIOC only offenders and mixed (contact and IIOC) offenders had volunteer. Research in chapter two of the thesis suggests there may be differences between these two groups, however whether these groups differ in regards to collecting behaviours has never been examined.

Participants.

Of the 155 prisoners who responded, 33 (21%) self-reported gathering and accumulating indecent images of children. The IIOC offender sample had a mean age of 48 years (SD=13.6), ranging from 26-74 years of age. The average age the IIOC offender commenced gathering indecent images of children was 37 years (SD=14.28), with a range of 13-60 years. Participants were mostly Caucasian British Nationals, who were well-educated, working and not in a committed relationship.

Instruments.

If participants self-identified as having gathered and accumulated images of child erotica or IIOC, they were then asked to complete demographic and background information questions regarding their IIOC offending behaviour, as well as psychometrics that measured psychological and developmental issues associated with collecting. Careful consideration was given to the wording, sequencing, number of questions and nature of the questions to minimise any potential harm to participants and threats to gaining reliable and valid data.

Survey construction/development.

To date, other than standardized tools developed to explore and diagnose pathological collecting (e.g. hoarding), there are no standardized measures of normative or image collecting behaviour. Measures to assess gathering and accumulating behaviour associated with IIOC offending also do not exist. In order to develop the survey for Study 3 the

collecting and IIOC offender literature were considered, as was the potential that IIOC offending behaviour reflected a pathology associated with collecting e.g. hoarding or Asperger's Syndrome. This resulted in a survey and psychometric study which incorporated questions into four core areas:

- 1. Demographic information concerning participant ID, age, marital status, ethnicity, nationality, dependents, qualifications, employment and age they commenced their IIOC offending. This included Questions 4-10 and 15. This data was important as these variables were used to describe the sample, and in comparison, analysis between IIOC collecting and non-collecting groups.
- 2. Sample classification: Establishing that a sample of IIOC offenders had been recruited was critical. Question (Q) 1 "have you ever downloaded and saved images of children to your computer" helped identify the IIOC sample, and Q2 prevented unnecessary data collection because if participants answer "No" to Q1, they were informed in Q2 that they did not need to continue with the survey. Prior studies and legal statutes recognise the different roles IIOC offenders can take, such as possession, production and/or distribution of IIOC, and Q24 sought to identify what role or roles participants took in regards to their involvement with IIOC offending. Crossover offenders who have contact and IIOC offences have been consistently identified, often called mixed offenders, and Q25 sought to identify the proportion of IIOC Only offenders and mixed offenders within this sample. Q24 and Q25 were also used when comparing the Collecting and Non-collecting participants.
- 3. Collecting Questions were structured around the core units of collecting established from chapter one and applied to IIOC offenders in chapter two, that is nature, function and process. Questions relating to the potential collecting aspects of IIOC offending were distributed throughout the middle section of the survey. The sequencing of these collecting questions started with more factual questions which would be easily recalled thus placing less effort on participants and potentially enhancing engagement. As the participant progressed through the survey the questions relating to the nature, function and processes of collecting became more personal and cognitively challenging.

- a) Nature questions were within the set of questions in item 17, which explored what types of COPINE images participants had and also how many. The COPINE classification was used as information about images of child erotica and IIOC could obtained, and the COPINE could also be easily collapsed into more parsimonious scales adopted in later sentencing guidelines e.g. SAP and ABC scales.
- b) Function questions sought to understand what motivated and maintained the collecting behaviour of the IIOC offenders. A rewarding social function identified for both collectors and IIOC offenders, was social networking. Making social connections associated with IIOC is considered an aggravating factor in sentencing guidelines (SODG, 2014) as it is thought to evidence higher levels of IIOC involvement and deviancy. Methods of social networking and interacting were explored in Q21, and Q22 asked about the likelihood of sharing their IIOC. The importance of other motivations or multiple motivations possibly promoting IIOC offending were asked in Q23, these related to questions about set completion, sexual gratification and stimulation, content of images, financial gain and collection management issues e.g. organising. The research into pathological collecting indicates that cognitive mechanisms may drive hoarding behaviour, and the Saving Cognitions Inventory (SCI) was administer to test for the presence of the hoarding related thought patterns.
- c) Process questions related to how collectors identify an interest in a particular genre, how they acquire objects and how they manage the objects once in their possession. Social networking (Q21) within paedophilic communities has been thought to play a significant role in the evolving process of the IIOC offender. Excessive Internet use (Q18 & 19) has also been theorised but not always confirmed to be an important mediator of IIOC offending. Other process variables associated with IIOC offending are not well understood, and for the first time this survey prospectively applied McIntosh and Schmeichel (2004) model of collecting process to examine potential collecting process issues. Q23 deals with the processes involved in gathering, accumulating and managing IIOC, such as asking how important thinking about, finding, searching, acquiring, keeping, making, using, organising, showing and making money from IIOC.

4. Psychometric measures were sequenced after the collecting questions as the data relating to nature, function and processes were considered the most important to answering the research question. This made allowances for the potential impact of participant fatigue and non-responding, yet maximising the potential to get the most important data. The saving inventory revised came first as required quite a lot of concentration and reading to complete and it was thought the further into the survey the more likely for fatigue and drop-out, meaning potential hoarding issues would not be Next came the saving cognition inventory which measures cognitive assessed. mechanisms associated with hoarding, and is a relatively short and straightforward measure. Finally the Asperger Quotient (AQ10) psychometric was used as it was very short and considered the less important as unlike hording disorder, Asperger's Syndrome has been previously noted in prison populations. Other mental issues involving anxiety and depression where considered in Q11-14 as they have been linked with pathological collecting. Participants were asked to retrospectively record whether they had suffered from anxiety or depression before coming to prison. Using a standardized measure to assess anxiety and depression was considered, but thought impractical and ethically questionable because of the sheer number of items already included in the survey. Moreover prior research indicates that IIOC offenders had similar rates of anxiety and depression to mixed and contact offenders (Henshaw et al., 2015), therefore other measures where considered more important because of novelty (e.g. hoarding) and discriminatory value.

Psychometric Measures

The psychometrics employed within this study were deemed to be appropriate to examine whether the hypothesized pathological collecting component was related to IIOC offending. This hypothesis was tested using the following psychometric measures, which are considered the gold standard in regards to screening for hoarding disorder (SI-R) and underlying cognitive mechanism (SCI), and Asperger's Syndrome (AQ10). The psychometrics employed are describe below and the reliability for use highlighted.

Saving Inventory Revised (**SI-R** - Frost et al., 2004) is a 23-item questionnaire which assesses compulsive hoarding, with a total score ranging from 0-92 and a cut-off score of 41 providing the best relationship between sensitivity and specificity (Tolin, Meunier, Frost, &

Steketee, 2011). A slight modification was made to the SI-R whereby participants rated the degree to which they are bothered or distressed by hoarding symptoms before coming to prison (rather than during the past month) on a 5-point scale The original author was contact and advice was taken from him that modification would be satisfactory to Use. The SI-R comprises of a three factor structure comprising Acquisition (7 items), Clutter (9 items) and Difficulty Discarding (7 items), and has been validated in nonclinical (Melli, Chiorri, Smurra, & Frost, 2013; Mohammadzadeh, 2009) and clinical (Frost et al., 2004) populations. The internal consistency has been demonstrated as good, with Cronbach's Alpha ranging from .84-.93 (Fontenelle et al., 2010; Frost, Rosenfield, Steketee, & Tolin, 2013) and the test-retest reliability ranges from .86-.94 in previous studies (Fontenelle et al., 2010; Frost et al., 2004). The internal consistency (Cronbachs Alpha) in the current study was very good, SI-R total scale .96, Clutter .92, Acquisition .89 and Discarding .93. Convergent and discriminative validity has been established in past studies (Fontenelle et al., 2010).

Saving Cognition Inventory (SCI- Steketee et al., 2003) is a 24-item scale reflecting attachments and personal beliefs related to possessions. The SCI total score ranges 24-168. A slight adjustment to the SCI was introduced to reflect that the participants were now in prison therefore the questions related to how they related to objects before coming to prison rather than asking about their experience in during the past month. Ratings were done on a Likerttype scale range from 1 (not at all) to 7 (very much). The SCI comprises four analytically derived subscales that assess Emotional Attachment to objects (10 items), Memory (5 items), Control (3 items) and Responsibility (6 items). Emotional attachments include the emotional comfort provided by possessions, the tendency to see possessions as part of one's identity, and attaching extreme value to possessions. Beliefs about memory include concerns about forgetting or losing important information if objects are discarded. Beliefs about control reflect the fear of having other people touch, move, or in any way interact with their possessions. Beliefs about responsibility involved the concern about wasting potentially useful possessions. The SCI has high internal consistency, test-retest reliability, highly correlated with hoarding symptoms and discriminates hoarding patients from those with OCD and community controls (Steketee et al., 2003). The internal consistency (Cronbachs Alpha) was acceptable to very good for this sample, SCI total .96, Emotional Attachment .90, Control .75, Responsibility .85 and Memory .82.

Autism Spectrum Quotient for Adults (short version; AQ-10): The AQ-10 (Allison, Auyeung, and Baron-Cohen, 2012) was developed from the original 50-item version as a screening tool for clinicians. Responses are on a four-point scale: definitely disagree, slightly disagree, slightly agree and definitely agree. Responses indicating autistic traits score 1, while other responses score zero, and certain questions are reverse scored to prevent response set. The total score ranges from 0-10, a high score corresponds to more autistic traits and a clinical cut-off score of 6 was established from the large scale development and validation study providing the best relationship between sensitivity (0.88) and specificity (.91) (Allison, Auyeung, and Baron-Cohen, 2012). Internal consistency was for this current forensic sample was .612 which is below the accepted level of .7 and would suggest caution when interpreting this instrument.

Pretesting.

Pretesting the questionnaire with IIOC offenders was not a viable option for the researcher as at the time of development no permission had been granted to approach individual offenders. Pretesting was carried out with my supervisors and director of studies to ascertain and identify whether there was any overall structural or question problems. After multiple discussions, agreement was reached that the survey and psychometrics were appropriate and would answer research questions. The supervisory team included two forensic psychologists one being an academic and practitioner with the other being employed as the head of psychology from the sex offender prison from which the participants were drawn and the other academic an expert researcher in the field of sexual offending.

Data collection.

The present study was approved by a UK University Ethics Panel and approved by the National Offender Management Service (NOMS). Participants in a UK sex offender prison were recruited in May 2013 through distribution of the survey and psychometrics to the prison population. Again IIOC offenders self-identified and volunteered to complete the survey. After providing informed consent participants completed demographic and background information, SI-R, SCI and AQ10 measures, respectively. Confidentiality was ensured as information was stored on a password-protected computer, and each participant generated a unique identifier which they could use to withdraw their data up until the point of analysis. As there was a probability of individuals with learning disorders being asked to take

part in the survey they could request help and guidance from the researcher in terms of the researcher being present when the survey was being completed. All prisoners were given the option of completing the questionnaires alone in their cells or under supervision in an appointed room within the prison, although it was considered that completing the surveys alone and anonymously would help prevent socially desirable responses that may negatively affect findings (van de Mortel, 2008). Completed surveys were either collected by the researcher when they had been returned to wing officers or when returned to the researcher via the prison psychology department. All participants received a debrief letter after they had taken part in the survey.

Data Analysis.

A code book was developed to assist with questionnaire data entry and later analysis. Possible responses to questions where converted to numerical data and the numerical response inputted into SPSS. During this phase, random checks were carried out to detect input errors. When all data was inputted the overall dataset was cleaned of all numerical errors, check for random responding and outliers, resulting in one person being removed from some analysis.

Statistical analyses were conducted with the statistical program SPSS version 22. Descriptive statistics, frequencies and crosstabulations were used to analyse the survey data and to examine the collecting characteristics of IIOC offenders who gather and accumulate IIOC. Cronbachs Alpha was calculated to check the internal inconsistency of the AQ-10, SIR and SCI with the current forensic IIOC offender sample. This found that other than the AQ10 which should be interpreted with caution, the SI-R and SCI were appropriate to use with the current sample. Due to small sample size, and as the data was mostly categorical and nominal Fisher Exact Test or Chi-Square will be used to examine hypothesized differences between Collecting and Non-Collecting IIOC offenders. For continuous variables mean or median differences will be examined using relevant parametric or non-parametric tests, such as t-tests or Mann Whitney U.

Limitations of measures and survey.

After consultation with SIR and SCI test developers it was deemed appropriate to change some of the wording in these measures to reflect that many of the items collected would be digital images rather than tangible hard copies of images. The SI-R and SCI time-frame (within the last month) to consider the symptoms was adapted, as the timeframe was not relevant to tis sample of incarcerated IIOC offenders. Moreover, due to the stricture of what one can have in prison there was no possibility of hoarding being a present problem. To overcome issues with the test the time frame was revised, and the prisoner was asked to rate the items in regards to "before you came to prison". Retrospective questions require recall of experience and its use within research can create affect the validity of the results due to recall bias. Some research suggests that year-on-year critical details of occurrences are lost which have negative consequences for the credibility of findings (Hassan, 2005). Most participants within study 3 had been in prison for many years so the data that relied on recall may be biased. Also, some of the measures, such as the SI-R have high face validity and increasing the chances that participants could easily falsify or fake responses.

CHAPTER 4: Study One: The Image (Postcard) Collectors Experiences. "When we get really good cards we put them on the mantelpiece for a while so we can view them".

This study aims to examine, using Interpretive Phenomenological Analysis (IPA), the personal experiences and mean making of a male volunteer sample (n=10) who self-reported as images collectors, predominantly postcards. IPA is considered to be a good method to illicit understanding of individual's experience, and has been effectively employed with samples of IIOC offenders in regard to understanding their Internet sex offending behaviour (Winder & Gough, 2010). The normative collecting sample was kept genre specific as it is thought collectors are not a homogeneous group, and participants in this sample collected postcards primarily for the imagery.

Introduction

Normative collecting is a pervasive behaviour with 70% of children and 50% of adults engaged in some form of collecting behaviour during their lifetime (Pearce, 1998). Belk offers a more conservative estimate of between 25-33% of the population, which in the UK would equate to between about 13-17 million people who currently or have at one time considered themselves a collector.

Given the prevalence of collecting behaviour it is astonishing that so little empirical research has been undertaken, and in many ways normative collecting research is in its infancy. Nordsletten and Mataix-Cols (2012) found only 12 sources considering normative collecting after a detailed database search linked to a review the literature comparing hoarding and normative collecting. Five of the sources studied a single genre of collectors, using observation, interviews and/or surveys, that is Dannefer (1980; 1981) studied car collectors and enthusiasts, Long and Schiffman (1997) watch collectors, Slater (2001) coca cola collectors and Huang, Chiou and Chang (2008) studied Taiwanese collectors of convenience store gifts. The other seven sources used non-genre specific collecting samples with four using interviews and observations (Belk et al., 1991; Belk, 1995; Case, 2009; Danet & Katriel, 1989) and three using a survey method (Formanek, 1991; Pearce, 1998).

Nordsletten et al. (2013) published a small comparison study considering demographic, clinical and collecting characteristics of a self-identified sample of collectors (non-genre

specific) versus diagnosed hoarders. This is a formative study attempting to distinguish hoarders and normative collectors, and they concluded that "there are quantitative and qualitative differences between hoarding disorder and normative collecting" (p. 229). They found demographic and clinical differences, as well as differences in collecting characteristics, with collectors "more focused in their acquisitions (e.g., confining their accumulations to a narrow range of items), more selective (e.g., planning and purchasing only predetermined items), more likely to organize their possessions and less likely to accumulate in an excessive manner" (p. 229). In addition to the lack of empirical research, theorising on collecting is equally scant. There are a few academic sources which aid understanding of the nature of collections, the collectible and the collector. Theoretical accounts which do exist stem from a range of disciplines, marketing and consumerism (Belk, 1995; Belk et al., 1988; Chung et al., 2008), art and museum studies (Elsner & Cardinal, 1997; Martin, 1999; Pearce, 2010, 1998, 1997, 1993), psychoanalytic case studies (Muensterberger, 1994; Subkowski, 2006) and psychology (Nordsletten & Mataix-Cols, 2012).

On the whole there is a dearth of empirical and robust psychological research examining collecting, and to date no one has published any empirical research examining the experiences of image (postcard) collectors, therefore we know nothing about the collecting experience of this group of normative collectors. The sources exist are on the whole weak, with many studies failing to provide details of their sample characteristics (Case, 2009; Dannefer, 1980; Long & Schiffman, 2007; Slater, 2001), unrepresentative and small samples (Dannefer, 1980; Huang et al., 2008; Nordsletten et al., 2013; Slater, 2001) and used generic collector samples even though collectors are unlikely to be a homogenous group (Belk et al., 1991; Danet & Katriel, 1994; Formanek, 2006; Nordsletten et al., 2013; Pearce, 1998). The data collection methods were either not stated or vague (e.g., interviews) and the methods of analysis were often not consistent with the systematic qualitative techniques used in psychology, such as thematic analysis or IPA (Case, 2009; Dannefer 1980, 1981; Martin, 1999; Slater, 2001). Nonetheless these sources provide some insight into the phenomenon of normative collecting and could provide a starting point from which to speculate about the nature, function and processes of image collecting behaviour.

Perhaps parallels exist between legal image collectors and IIOC accumulators that is Internet sex offenders who accumulate collections of indecent images of children. Whilst this

hypothesis remains to be tested, forensic research, such as Sheldon and Howitt (2007), Taylor and Quayle (2003), Winder and Gough (2010) and Winder et al. (2015) provide helpful assistance about suitable methods for examining the experiences of image collectors and their findings may help in contextualising image collector's behaviour. Seminal work by Taylor and Quayle (2003) and Sheldon and Howitt (2007) used interviews and qualitative methods, such as thematic analysis, to examine Internet sex offender behaviour and both studies noted a collecting element involving illegal images of children. Winder and colleagues using interviews and techniques from discursive psychology and IPA to consider the initiation of Internet sex offenders use of illegal images (Winder et al., 2015) and psychological strategies used by Internet sex offenders to justify possession and acquisition of illegal images.

Normative collecting is difficult to define given the lack of research, and this is further complicated as "collecting is a behaviour that mirrors many of the core features of hoarding (e.g., the acquisition of and emotional attachment to a potentially large number of objects)" (p. 230), and the diagnostic boundary between pathological collecting and normative collecting has received little attention (Nordsletten & Mataix-Cols, 2012; Nordsletten et al., 2013). For the purpose of this thesis normative collecting of legal images refers to collecting behaviour that is generally benign and appears to cause the individual no significant impairment in terms of legal issues and social, relational or interpersonal functioning. Normative collecting could also be health promoting and enhance well-being (Belk, 1995; Carey, 2008; Formanek, 1991; Pearce, 1994), however, this is not considered integral to the current definition of "normative collecting".

There has been considerable theorising and debate within arts and museum studies about what constitutes a collection, yet confusion and disagreement still exists over this fundamental concept. A trend in collection definitions is that it is subjectively defined, in which people make their own choice about defining a collection by adding their own individual values to it or putting no personal value on it whatsoever (Pearce, 2004; Reid, 2010). A collection is therefore considered an internally driven concept, however, the internal drives of a potential collector may be manipulated even generated by external forces, such as manufacturers, marketing strategies and collecting communities (Belk, 1995; Danziger, 2004; Martin, 1999).

The components of a collection are unclear, but nature and function seem to be two important elements. From reviewing definitions of collections, nature appears to reflect the intrinsic attributes of the object (collectible) and collection, and is typically thought of in terms of size and relationships between objects in the collection. Function refers to the purpose of the object, collection and how they are used by the owner. Current theories and empirical research suggest size is not an essential marker depicting level of engagement in collecting behaviour as the collector and their collection seems to evolve over time (Belk 1995; Carey, 2008; Chung et al., 2008; Dittmar, 1991; McIntosh & Schmeichel, 2004; Pearce, 1993, 1998). The evolution of the collector, may mean that the collection increases for some kinds of collectors, e.g., the novice and hobbyist, or possibly reduces for others e.g. the expert or connoisseur (Chung et al., 2008; Danet & Katriel, 1989; Saari, 1997; Strone, 2010). Theoretical accounts of the nature of collections place considerable emphasis on the relationship between objects within the collection, with some defining the relationship solely in terms of nature and how objects work together (Belk, 1995; Durost, 1932; McIntosh & Schmeichel, 2004) and others emphasizing the relationship between objects can be based on a duality involving nature and function, e.g. car collectors may like to drive their cars, tie collectors who likes to wear the ties (Carey, 2008; Pearce, 1993). Object relationship has also been considered in terms of sets or series, with the notion of completeness linked to the concept of collection (Carey, 2008; Elsner & Cardinal, 1997).

Pearce (1998) in the Contemporary Collecting in Britain Survey (CCBS) found that 50% of self-defined collectors felt that their collection was an important part of them, with men more likely than women to place importance on their collection. Pearce (1998) describes imbuing objects with personal meaning as "a fetish were the true nature of the object is taken out of its historical context and re-established solely from the subjective meaning of the collector as a souvenir of their past experience" (p. 27). This idea that the collection and collectibles somehow become intertwined with the psychology of the collector remains to be empirically examined, but theoretically it suggests the relationship between the collector and his/her collectibles and collections is as important as the relationship between the objects within the collection. This idea of emotional attachment between collector and collection is noted in psychological case studies of collectors (Muensterberger, 1994; Subkowski, 2006) and in hoarding research (Steketee et al., 2003).

To summarise, theoretical accounts reflecting on the nature of collectibles, collections and the collector, clearly suggest that taking a simple objective and non-functional view of a collection and the grouped collectibles in terms of size and numbers of object relationships may obscure the personal-making that goes into creating a collection, and a window to the inner world of the owner may be overlooked using quantitative techniques. This is evident in the finding that personal meaning of objects is rated as unimportant in quantitative surveys with many participants reporting they acquire and possess objects just because they like them (Nordsletten et al., 2013; Pearce, 1998), whereas narrative and qualitative research reveals a connection between personal experiences and the desired collectible (Long & Shiffman, 1997; Muensterberger, 1994; Nicholson, 2006; Subkowski, 2006).

The demographic profiles of normative collectors are unclear. There is a general consensus that collecting starts in childhood with proportionately more children collecting than adults. Nordslettern & Mataix-Cols (2012) suggest a linear relationship between age and collecting, whereas Pearce (1998) found a bi-modal distribution with peaks in childhood and another increase in the mid-50s. Nordsletten et al. (2013) found that "collectors were more likely than those with hoarding disorder to be male, partnered, and free of psychiatric conditions or medication" (p. 229). A number of theorist (Belk & Wallendorf, 1994; 1998; Dittimar, 1991; Martin, 1999) support this idea that collecting is male dominated, with men generating larger collections. However Pearce (1998) found more females than males in the CCBS sample and drew attention to important historical female collectors. It is currently unclear the frequency of collecting in males and females, however there appears to be some consistency in the finding that particular collectibles are more likely to be gender-specific and reflect traditional stereotyped gender roles (Belk & Wallendorf, 1998; Dannefer, 1980; Martin, 1999; Pearce, 1993).

Research indicates that collecting, whether it is legal, illegal or pathological, serves multiple psychosocial functions for the individual (Elliott & Beech, 2009; Frost & Steketee, 2014; O'Donnell & Milner, 2007; Nordsletten & Mataix-Cols, 2012). Internal drivers for normative collecting have been suggested, such as obtaining emotional satisfaction (Danziger, 2004), pleasure and psychological well-being (Belk, 1995; Carey, 2008; Formanek, 1991; Pearce, 1998), addresses social adjustment and attachment issues (Muensterberger, 1994; Subkowski, 2006), anxiety reduction and emotion regulation (Muensterberger, 1994; Subkowski, 2006), and gives purpose and pleasure as a

leisure/hobby activity (Belk, 1995, Carey, 2008; Pearce, 1998; Nordsletten and Mataix-Cols, 2012). Social relationships and opportunities to display, share or talk about one's collectibles and collections seems highly important to normative collectors (Belk, 1995; Belk & Wallendorf, 1994; McIntosh & Schmeichel. 2004; Nordsletten et al., 2013; Pearce, 1994; 1998). Collector communities appear to provide the opportunity for social hierarchies to form, with the collector perhaps gaining social status and personal enhancement through moving up the collecting hierarchy (Belk, 1995; Pearce, 1998). Collector communities also provide opportunities to acquire, swap, discard and sell collectibles (Carey 2008), and permit social interaction and the building of social relationships with like-minded others which could help build knowledge of the collectible, define parameters about what is available which in turn supports collection development and refinement (Belk, 1994; Nordsletten et al., 2013; Johnson, 2014). Opportunities to talk about current collections may also create social comparison, and given the association with self and the collection favourable comparisons may increase self-worth whilst unfavourable comparisons may diminish selfworth and possibly create unhelpful envy and competition in the collector community (Singer & Salvoley, 1991)

Marketing and consumer research (Belk, 1995; Danziger, 2004) offers external motivations for collecting, in particular it is driven by clever marketing techniques. Hoarding research offers some alternative explanations, implicating neurobiological mechanisms in pathological collecting behaviour (Mendez & Shapira, 2008; Saxena, 2008). Marketing and consumer research (Danziger, 2004), along with forensic studies (Winder et al., 2015) and hoarding research (Steketee et al., 2003) implicate cognitive mechanisms in the maintainence and continuance of collecting behaviour, in particular the use of thinking errors/justifiers to overcome internal inhibitors to acquire and keep objects which are functionally superfluous and possibly obsolete.

Little systematic research has been undertaken to identify the processes or steps taken when developing a normative collection. Collecting appears to be an evolving process developing over time (Belk, 1995; Chung et al., 2008; Pearce, 1998; Taylor and Quayle, 2003). How the collector evolves has not been examined, although Chung et al.'s (2008) four themes of the evolving fanatic which provides some theoretical ideas about the transition from novice to entrenched collector, perhaps even pathological collector. A social psychological model of collecting has been offered by McIntosh and Schmeichel (2004) who have conceptualised

the process of collecting as a self-reinforcing behaviour involving an eight step cyclical process. McIntosh and Schmeichel's (2004) eight steps are summarised as follows:

- 1. Decide on collecting goals to be achieved, and deciding what objects to collect;
- **2.** Gathering information about the objects of interest;
- **3.** The individual then thinks about the object and makes plans about how to acquire it;
- **4.** Hunting for the objects he/she desires;
- **5.** Actual acquisition of the object/item;
- **6.** Post-acquisition, study and react to the acquired object;
- 7. Catalogue and display the acquired object;
- 8. This stage refers to a decision point in which the individual may decide on whether to continue collecting X type of object resulting a move to step 3, or they may start again at step 1 applying their new found knowledge to re-think about that they would want.

Whether collectors go through McIntosh and Schmeichel's (2004) model remains to be tested, and it is unclear if all collectors would go through the eight steps sequentially and whether there may be individual differences in the time taken to move between steps and whether some steps may be omitted, such as cataloguing (Step 7) as the evidence suggests this organisation is not important to all collectors (Nordsletten et al., 2013; Pearce, 1998; Sheldon & Howitt, 2007).

In conclusion little is known about normative collecting, and the nature of the collectible, the collector and the collection requires further study particularly using the systematic research methods associated with psychology. Theoretical ideas offer the view that collecting and collections are a subjective experience, with each collector having their own unique relationship with the collectibles and collection they possess. This interaction between collector and object is thought to serve multiple functions, which may be within or beyond current awareness of the collector. Given the untapped research area and the nature of phenomenon, qualitative research methods seem most relevant. There is little firm empirical evidence that concludes what collecting involves for the individuals or groups of individual. Given the subjective nature of collecting and unique linkages between collectibles, collection and the collectors, a method which permits examination of the complex interaction from perspective of the collector might help enlighten us about collecting

behaviour. Interpretative Phenomenological Analysis (IPA; Smith at al., 2009) allows the researcher to gain a detailed understanding of the phenomena through exploration of the collectors own understanding of their collecting experience and their experiences of a phenomenon in their life.

Method

Participants.

The purposive sample consisted of 10 white, English adult males with an age range of 46 to 79 years, who self-reported being postcard collectors attending a postcard collectors' fair. 70% were married, two participants had never married and one was separated. All participants were educated and 40% had obtained a university degree. All participants worked or had retired (see Table 5). The size of the postcard collections ranged from approximately 3000 to "too many to count" (see Table 5).

Data collection.

Collection of interview data from the participants for this study was undertaken only after it was passed for ethical approval by a UK University and only after prior consent was given by the organisers of a large image and postcard collectors fair where the participant would be recruited. It was explained to the potential participants that the research sought to explore through interview their understanding of why they collect, how they collect and what was the function of their items/collection. Participants were informed of the anonymity and confidentiality of any data taken from interviews and that the interviews were being undertaken that day. After informed consent was given to take part the participant was interviewed using semi structured interviews in a large private office within the building where the collector fairs were happening. The interviews were conducted between March 2012 and April 2013 and all interviews were recorded via Dictaphone and transcribed verbatim. After each interview all participants were debriefed and were asked if they had any questions.

Interviews.

The interview data was collected using a semi structured interviews. The interviews lasted between 45-75 minutes. The interview schedule was developed from existing research pertaining to normative collecting and image collecting. The questions were open-ended to generate an understanding of the collectors' experience, and focused on understanding what they collected, the nature of their collections, the processes involved in collecting and the function of the collection, collectibles and collecting to individual collectors.

Analysis/methodology.

As little research has been undertaken to explore normative collecting behaviour including the collecting of images Phenomenological Analysis was considered a suitable framework to examine the collecting phenomena and the specialist collecting genre of postcard image collecting. Other qualitative methods such a Thematic Analysis and Grounded Theory were considered for use. Unlike IPA, Thematic Analysis does not give a theoretical or epistemological standpoint for how and why the researcher should collected the data or how the researcher should analyse the data rather it represent primarily a method of collecting and interpreting data (Braun & Clarke, 2006). Grounded Theory (Glaser & Strauss, 1967), which Smith et al. (2009) see as an alternative to IPA, was not thought appropriate for undertaking this qualitative research as the researcher was not trying to build a theory of what collecting is but trying to explore the collecting experiences and behaviour of the postcard collectors.

IPA is a qualitative and analytical method of analysis which draws on the participant's expert experience of how they make sense of their world and their experiences of a phenomenon in their life "IPA is phenomenological in that it is concerned with exploring experience in its own terms" (Smith et al., 2009, p. 1). A major theoretical underpinning of IPA comes from the concept of hermeneutics, which concerns the theory of interpretation. Within the framework of hermeneutic thinking the researcher interprets the data using objective psychological standpoints or theories that elicits an understanding of the phenomenon at hand, moving away from the merely descriptive data of the participant to a more abstracted but objective understanding of the phenomenon overall (Smith et al., 2009). Analysis was undertaken following the guidelines forwarded by Smith et al. (2009) which advised the reading and rereading of transcripts to gain an overall understanding of what is being reflected on by the participant, the creation of initial thoughts relating to the data which highlight exploratory or emerging themes and final construction of super-ordinate themes. (For full review of methodology see chapter three).

Results

The dataset generated from the interviews with image collectors revealed four superordinate themes based on participants' accounts of their collecting behaviour (Table 7), and these will be discussed in turn.

Table 7: Theme and Subthemes from Interviews with Image (Postcard) Collectors

Themes	Sub-themes
Recapturing the past	Understanding/not understanding images as reconnection to historical self, people and places.
Romanticising the image	Mean making and enhance collectability.
Collecting as evolution	Evolution of collection/ evolution of self.
The importance of lack of knowledge	Motivating a continual hunt.
	Driving large collections.
	Cataloguing as antidote.
	Excitement of the novel image.

Recapturing the past

Most participants seemed to feel, as they have become older that there was some sense of loss of their personal historical world and life experience. They seem to be seeking through their preferred images to re-establish or in some way re-experience or preserve their own experience. Through their preferred images they related to what had gone on before and re-connected with personal emotional feelings associated with what the images represented. Most participants seemed to be returning to a time relevant only to themselves and their life experience, while for others there appeared to be a wider historical importance to the nature of the imagery they collected. It seems that in both circumstances the image collectors wanted to save something important to themselves or preserve an understanding of the world at particular points in times and to that effect these images seem to function as a psychological stepping stone to achieve the goal of reconnection with the past.

Participant 5 "I am not trying to connect with the past, it's a re-association with the past I've had. We've collected images of where we lived, the areas we've lived in, in our own era and sometimes before that in our parents and grandparents era".

Participant 2 "I collect topographical postcards which are linked to family history, so places that our ancestors lived, I collect those towns and village locations"... I get pleasure from finding cards which have associations with the places my ancestors lived and that is the primary issue. If there is a really nice card of a place where my ancestors didn't live as far as I know, I wouldn't normally buy it. I'm very focused on its link with family history".

Participant 5 "I've got images of two collieries that my granddad worked in. You know that's linking me with his life, cause I went into mining as well but the mining bit missed a generation ... It leapt a generation and I took it up and that's as far as that one goes. So that's the end of that era, the mining bits gone. Erm, it's just understanding where you are, where I am in the march of time and relating yourself to where you are in the scheme of things".

Participant 3 "You need to understand history to understand today it breeds ignorance otherwise, it's so important and collecting is part of that ... Obviously you need to understand where people come from, the history of the world the history of nations, the history of cultures. You know people can be very ignorant today and they don't understand what's happening in the past and how we got there and how we got into this situation today".

When asked about why his primary collection of postcards of military uniforms appealed to him, Participant 10 said "no idea" Just the books Follow the Drummer Boy' the Marriot books".

Researcher: So there was some influence from reading?

Participant 10 "There must have been, yeah. I wanted to join as a boy and I wanted to be a drummer boy in the black watch …, I became a royal engineer… I was in the Army for 25 years, I joined as a boy in '59. I always wanted, I sat in school, in 1881 the 'First of Foot' became the 'Royal Scots', there was 100 and umpteen regiments, and as a school boy of 8 or 9 I wrote in my book, 'the first of foot – the Royal Scots, the Second of Foot- the Queens Royal West Surrey, the Third of Foot the Buffs. I knew at 8 or 9 what they were, always interested".

Although it was apparent that some collectors related to their images with some clarity and easily linked to their autobiographical memory, it became apparent that some participants had little insight or where uncertain as to the basis for their collecting behaviour and the nature of imagery they collected. When asked why their images appealed to them, and many just gave answers such as:

Participant 6 Said, "well I am just interested in it, the collection started off as a stamp collection and I achieved a high award in 2001 and got a gold medal for stamp collecting, I has already been collecting postcards as an entirely separate thing, just interested in the whole thing".

Participant 9 "I don't know to be quite honest, except there is something about steam, it makes a different noise, pours smoke and steams out. I admit if you stood on the bridge and you let the train come under you know it does make a bit of a mess of your face sometimes, but I don't know there is something about steam. I mean even now if there is something on the telly about steam trains I will usually watch it".

Even those who seemed unaware of why they collected revealed in their later narratives a recapturing of their personal past, particularly when they began to talk about their collectibles and collections. Participant 9 did not seem to appreciate why he collected steam trains and colliery cards but alluded to family connections to both, including an early remembrance of going to see a famous steam train with his mother at age five or six. Moreover he also explained that his grandad and uncle worked down the pits. This lack of understanding about their collecting behaviour may be due to them having never questioning themselves about why they collected or there may be a block in accessing their personal narrative which could reflect other psychological process, such as trauma.

Whether understanding or not understanding the motivations for the acquisition of certain images, it evident that the image collectors are harking back to past experiences or inner beliefs. Images appear to act as triggers for autobiographical memory or elicit positive childhood memories of care and attachment. The fact that the image collectors chose to return to earlier times or past positive experience may suggest a desire to escape something in the present and/or may be revisiting their history through the use of images offers pleasurable rewards. Indeed for some the process of collecting itself was rewarding and generated opportunities for recognition, such as those described by participant 6 and his account of being rewarded and noticed for his collecting prowess. These accounts reveal that the collector, the images and the collection of images can become cognitively and emotionally intertwined, and use of the images to elicit positive emotions and prior experiences may strengthen the desire to collect through both positive and negative reinforcement.

Romanticising the image

Most of the participants seemed to imbue onto their preferred images a sense of romanticism and fantasy so that they can relate to what they are viewing in a deeper, empathetic and personal way. This transference of romantic idealism between the collector and the image seems to occur whether the images pertain to people, places and/or objects. Some individual collectors also seek to enhance this romanticism by engaging with more tangible related relics that relay physical information about their interest. Use of secondary material may be utilised by the image collector in an effort to make themselves feel closer to what is being portrayed within an image.

Participant 5 "It's just an interest in history, humanity and trying to understand what was in the photographers mind and what's in the minds of the people who are in the scene, How they are facing their lives ".

Participant 3 "I love the Victorian period, I love period drama. I love reading Victorian fiction non-fiction. I just think it's good, it's fascinating in terms of British history and world history but to actually own and handle real things from that time, the tangible evidence I like. The tactile evidence I think is, it makes it more real"... learning how people lived and reliving it helps to empathise with their lifestyles."

Participant 2 "I'm really pleased that I started collecting and I think it's added a lot to my family history research in that these places in some cases strange names and locations mean a bit more ... and you know when you visit the location you think, my ancestors were here and it's nice to have the image of how it was when they were there".

For many empathy seemed to be a major signature of how the collectors intended to relate to the images they collected. At a personal level they cared about what they were viewing, and they give emotional depth to the image and made the image relatable to themselves and their own experience. Image collectors appear to fantasize, which allows them to explore and embellish the intimate world of those depicted in the image and build an emotional attachment with the content of the depictions. This emotional attachment may make the image important to the collector thereby making the image difficult to discard. In reality the collector may not be able to completely understand what individuals in a given image may be feeling or what their world meant to them; and this lack of completeness in understanding can encourage research and the use of related tangible objects to enhance the collector's connection with the image. The use of tangible objects may further solidify the romantic notions of what they want the image to represent, finally making the image and what it depicts more real for the collector. It could be suggested that romanticising and fantasizing about the image supports the development empathy and that this empathy with the image helps build an emotional affinity between the collector and image, and ultimately this connection makes the image collectible and worth keeping. Once the collector's psyche is synergised with the image, discarding the image may be feel like disposing of a part of self.

Evolution of the collection and evolution of self

Collecting could be considered as a process that is evolving, there is an initial interest which is explored and expanded upon. As this primary interest develops, the collector seems to come across related secondary material which may initiate new interests. For instance an interest in cameras may develop into an interest in collecting old photographic images.

Participant 6 "Well as I say it started with this, about the exhibition and the stamps issued for it, But postcards were postmarked all round England and the climbing countries Australia New Zealand they all had slogans and letters advertising in some shape or form and so it developed from that…. The reason I collect, it started off with stamps and then on from that".

Participant 8 " I think ever since I was a child you know trainspotting and that, I kept things like tickets and various stuff and it's sort of grown over time, I mean I am actually now more interested in people, I've just bought a card of a Midlands railway employee, you see that sort of thing... Sometimes you know you don't start off saving something then see a bit and start saving that".

Participant 9 "I did eventually branch out. I also changed a little bit, part way along the line, I started to go for postcards for what we call 'real photographic type'. I think it has to do with photography, because I was a keen amateur photographer and still am."

The initial evolution of a collection may start with a collector's interest in a primary topic, e.g., photography, whereupon there is, for some, the deliberate pursuit of secondary related material to expand their current interest. This expansion and evolution of the collection for other collectors seems more incidental, stumbling upon secondary material and inadvertently gathering items associated with their primary interest, with no initial concept of the collecting connection. The evolution of what is collected and the collection may be therefore be seen as deliberate or an incidental activity by the collector.

For most of the participants their image collections were initially related to a small area of concern, a starting off point which then becomes broader and results in many different types of images and objects that seemed related to one another, as **Participant 6** suggests, "I think collecting just develops into a large collection". This belief that collections just evolve into a large collection of images implies that the collector does not feel in control of their collecting. The lack of rational for having so many images and how the items within the collection relate to one another, suggests for some the evolution of the collection is not overly considered, it just happens. Collectors imply their behaviour is driven by something outside of their control, may even an uncontrollable urge or compulsion linked to obtaining new images.

Many of the image collectors went through a stage of owning larger collections, but as understanding of their interests evolved they felt the need to become more specialised. This was evident as many of the collectors chose to refine their interest by discarding images that did not seem to relate to their developing specialism, thus their large collections eventually became smaller reflecting a discernment in their passion and interest.

Participant 3 "Yes it's more specialised now and more discerning in terms of price and quality, when you're a beginner you will buy anything and possibly over the odds......Of course you do weed out items were the quality is not very good or you're not so interested in that particular image. You become more specialised certainly".

Participant 8 "I've had a vast collection of railway tickets, although the ones that I specialise in, because you've got to do that. So I am not interested for example in the great western railway, accept that you want to know aspects about them to be objective about why you like your favourite railway..... I just specialise.

Most of the participants went through a refinement process building towards specialisation in their collection and more honed interest in specific images. The collector also seems to evolve, with refinement enhancing objectivity which helps the collector develop a better understanding of their area of interest, identify their personal desires, and build a greater understanding of quality and value associated with their collecting genre. Over time the collectors seemed to be redefining themselves as important collectors with knowledge and a detailed understanding of their subject matter. For some this desire to be expert is a personal goal which might suggest that gaining status and respect in their respective community was the most important function of their collecting behaviour. For others the role of expert was something that evolved alongside the development and understanding of their own collection; becoming expert was something that happened incidentally over time.

Participant 3 "I found something in a field, something local in a ploughed field that got me really inspired and eh, I wanted to find more and more of them, then I can do research, learn more about them, go to the national archives and do research, go through the other documents research these items. You amass the expertise the information, the right papers the right articles, then become an expert so it just drives itself you become known in the field, I find that very satisfying... It just snowballs really and then you become what you are gonna be, before you know it you become an expert in that particular field".

Participant 6 "Well when you have been collecting as long as I have you build up a vast knowledge of things, you know I have looked at cards and said, oh yes that's so and so, I don't always get it right but you build up knowledge, over the years you can spot something …You do become an expert yes".

When asked, what does it feel like to have that knowledge **Participant 6** stated, "well *it's* nice that you know it, you share it with others".

What seems important for many collectors is the social aspects and sharing their knowledge with like-minded other. The sharing of expert knowledge and being identified within their collector community as expert has cultural capital both within the community and for some wider society. This recognition brings attention to the collection of images as interesting and valuable, and given the synergy between the images and the collector the prestige and accolades may be personalised by the collector, possibly increasing self-esteem.

Participant 7 "Since we started all the postcards have been made into slides, we've done slide shows for the past 30 years as well, to anybody who wants a slide show. Winter when the nights come down, Women's Institute anything like that".

Participant 5 "I do give talks on photography to camera clubs and postcards to the post card clubs we are in. I have to learn from the postcards I get and we talk about the history of cards and local history and things like that".

Participant 8 "Oh I have written quite a few books, a lot of my images are in other people's books and stuff like that. I had an email the other day, could somebody use a photograph in a book. I mean I always say yes, you know, and things like monthly trail were they open up tunnels and old railway stations, they put up information boards and come to me for photographs of what the railway used to be. I don't get anything. I don't have money for myself, I just probably, just give me a donation to the railway organisation for retired railway men".

Participant 9 "I suppose what wants mentioning, books and articles. The first book wrote, I retired from work in 19[inaudible]. I have to think about this, it doesn't matter, anyway was 59 when I volunteered for redundancy and for about 2 or 3 years before then I had in fact been writing, I probably written 3 books by the time I retired plus articles for (magazine). I think the tally for books now is somewhere in the region of probably 30, probably twice as many articles".

Whilst some collectors evolve into experts and share their accumulated knowledge and understanding within like-minded collector communities, there were some collectors who

gave the impression of being connoisseurs or authorities in their specialist collecting genre.

Those experts sought acknowledgment from more authoritative bodies, such as collecting magazines/periodicals and promoted themselves through writing books on their subject of interest. It could be suggested that for some expert collectors, acknowledgement of their achievements within smaller communities becomes unsatisfactory, resulting in the pursuit of validation for their commitment and subject knowledge to higher status bodies or wider audiences. This continual search for validation suggests that the collector feels uncertain that their achievements are worthwhile, and may continually seek acknowledgement from others that the 'track' they have undertaken is worthy. This act of seeking validation and acknowledgement in a world that they have created for themselves' suggest that the collecting pursuit and advancement to expert may not be a reflection of their current life; and that in order to achieve higher status the image collector created a world in which they were socially connected whilst being more in control and evolving to expert offered ultimate control of that world

The importance of lack of knowledge

Another process which seemed to lead to collecting behaviour was the lack of knowledge or parameters about what images actually exist to be collected within the specific interests of the collector. This lack of knowledge about what images actually exists for many of the collectors seemed to create a psychological urge where the collector did not know when to stop looking for images. This lack of knowledge propelled many collectors to take part in prolonged and extended hunts for images that may never be found. This lack of limits also seemed to lead, in some cases, to the potential and temptation to explore other image types when they became frustrated with not finding the current ideal or an image needed to complete or enhance their collection.

Participant 4 "Well you don't know how many images there are, you just keep looking, hoping you find something you haven't seen before".

Participant 8 "I think with collecting you never, unless it's something tied down which says they are midland railway postcards, they're issued, they are the ones they printed, so you've got a goal to get to, if not you never get to the end of the collection because you don't know what's out there".

Participant 6 "I'm retired now so I don't go round as much as I did. I know there are others who have cards that I haven't, I've probably got cards that they haven't got. I will have to keep looking. Well you can't really say that it will ever be absolutely complete because it's not like a stamp catalogue, where you've got a stamp and everything about it and you tick them off as you get them. With this you don't know all the cards that were produced. It is only by amassing this information by a number of collectors to make the basis of the book which is quite thick, I think it's got about 3 to 4 thousand cards in it but we can never say it will be 100% complete because you just don't know what's out there".

Researcher: "Is there anything about the not knowing what's out there?"

Participant 6 "Well it gives you the incentive to keep looking. You don't know how many there are, you keep looking hoping you'll find something that hasn't been seen before ... as a collector you endeavour to get everyone that is in the catalogue ... I think completeness is, for me its completeness".

The pursuit of completeness was only named by Participant 6 but implied in many of the narratives of the image collectors. Although they may realise that completeness may be impossible that does not stop them trying to attain the goal. Seeing "not knowing as an incentive" to keep looking suggests that collectors are persistent in their endeavours or that not finding something they need is the justification to keep fulling a need to hunt. This suggests that hunting for the image has its own rewards and implies that this part of the collecting process may in itself be rewarding.

Novelty of images or getting images that they had never seen before seemed important and triggered feelings of excitement.

Participant 4 "Well basically it's always felt nice to get hold of it [image], that's really what it is. I suppose its excitement. It's nice to see an image that you've been looking for a long time".

This idea that excitement is important for the collector is evidenced when asked how might you feel when you don't find the image you are looking for, many indicated a sense of disappointment. **Participant 10** stated, that he felt "gutted, gutted... you've gotta find something within the hunt otherwise it makes it, you know disappointing".

However even when the collector completes or cannot complete a set, for some this may lead to commencement of a new interest whose parameters need to clarified.

Participant 10 "Oh yes, I might even start a new series if I can't find any. Oh there is plenty of them. I'll start collecting them. Of course if you buy up the market then you'll have to go on to another series".

Participant 7 describes this process using an analogy. "So you've got this area then you go down a track. So you find something that may send you down a track. What stops you in your tracks of going down another track".

Completing a cycle of collecting associated with a particular or set or series, does not mean that the collector will stop or lose interest in collecting. There seems to be a compulsion to begin again, to find a new goal to pursue and gain rewards from the process of examining the limits of what this new interest has to offer. Moreover not knowing what exists to collect appears to create indecision within the collector concerning the goal that needs to be achieved and therefore many collecting goals may exist at the same time.

There seems to be a paradox within the collector's behaviour. A lack of knowledge seems to encourage the collector to continue looking for and enjoying the hunt for other images that may or may not exist. Making lists, cataloguing or ordering, collection management, seems to play crucial role for combating the lack of knowledge of what's out there, as it enables better understanding of what might be missing from a collector's knowledge, images or sets of images. When asked why ordering and cataloguing were important processes in their collecting process.

Participant 3 "So you can easily retrieve things. And it's easy to see if I, if I, sometimes I see another something, have I got that, have I not got it. It's easy to check".

Participant 2 "Being well organised and knowing what you've got and probably these days 80% of the cards we could pull out and look, I'll pull out the index and say we have already got it... I mean the primary objective is finding cards that you haven't got and I seriously, the key thing I feel about it is being organised, knowing what you've got and using that to make decisions".

From the above quotes it would seem that there may be some collectors who may enjoy the pursuit of completeness, for others organising their collections supports goal driven behaviour and decision making as cataloguing allows them to quickly know what they have and identify what it missing, thereby targeting the hunt for desired objects. Hunting for images and acquiring a novel image seems to offer the collector the potential for psychological rewards linked to feelings of excitement and satisfaction, and goal

attainment may consolidate this experience. These rewards, typically intermittent, may provide the drive for the collectors to continue their search and pursuit of the next reward. Disappointment about not obtaining a goal does not appear to block subsequent attempts to achieve the desired object, rather cognitive strategies help reframe the disappointment by re-focusing attention on the pleasurable feelings associated with the hunt.

Participant 1 suggests, "As in all these things there is something of the thrill of the chase".

Participant 2 "Finding really good cards that you haven't previously seen, that, that's it. You know the mechanics of it isn't really exciting".

Participant 6" Well it's a good feeling to find something you haven't seen before".

Variability in how dealers categorise or theme their images, e.g. the image of a church can come under religious postcards or relate to the town its associated with, can lead to prolonged hunting in areas that may be of little primary interest to the image collector. Personal goals and the desire to obtain them appear to sustain the collector through these onerous hunting expeditions.

Participant 5 "Well there is something in the hunt but I don't know what about. Eh, acquiring is important it gives you a feeling of achievement. I suppose you've endeavoured to achieve something and you've got it, so therefore you've achieved it, makes you feel good don't it".

For **Participant 8** it was more about gathering of information with acquisition being seen as less important.

"A lot of this from my perspective, is solving these things and looking at new bits of information, so I was saying about the Midlands railways they were in [anonymous] and they bought [anonymised and anonymised] Counties Committee so they have got a lot of postcards of the (anonymised, anonymised and stuff like that, so there are quite a few series that you can try. I think there is one of the golf course at (anonymised), see that's something, that took me ages to get that one because they don't have them sorted by railways, they are probably sorted by golf cause people are interested in golf It's not necessarily owning postcards or owning the postcard or owning the railway ticket or the photograph ... You study things and its knowing, it's the historical information you get out of it".

Most participants seemed to gain their satisfaction and enjoyment from the hunt, acquisition and researching about their preferred interest, with some enjoying the hunt per se and seeing it is a process to develop expertise and bolster existing knowledge. **Participant 6** concludes, "Well searching for them is half the fun but the two together. You might say it's slightly more exciting if you find something".

The rewards from acquisition seem to wear off quickly, and with this the need to recapture the original excitement resurfaces and inspires more hunting behaviour.

Participant 2 "when we get really good cards we put them on the mantelpiece for a while so we can view them and then after a few weeks they'll go into an album".

Participant 7 "you know people say to us what's the best card you've ever got and I'd say the next one, that sort of thing, familiarity breeds contempt. You've probably got some superb images and at the time you absolutely drool over them, but it's always the next one".

This dissipation of excitement which occurred post acquisition is also made apparent in collector's collection management behaviour, as most indicated that they seldom revisit their previous acquired images, typically storing the images in albums once it no longer stimulates excitement. Although images are rarely discarded or re-used for gaining pleasure, collection management of these images supported future referencing, collection development and further research.

When **Participant 10** was asked do you revisit your collection? He stated "Only when I am going to get another card to see if I've got it, but to sit and look at it, never happens".

When asked how he felt when looking back at his collection **Participant 6** stated;

"Uhm, I don't know going through them again it's something I ought to do I haven't done it for a long time, seen something out there now (at postcard fair) have I got that one or not,. I should refresh my memory before I came here".

Not really looking at the images they owned seemed to be part of the collector's behaviour, with ownership and knowledge they could return to the image when they wanted being good enough. However it could also be suggested that ultimately the image only offers the collector feelings of disappointment in that the image eventually lacks the meaning that the collector imbued upon it when romanticising and idealising it. It seems that although there is excitement and reward for the collector during the hunt, acquisition and immediately post-acquisition, these positive sensations appear short lived, even the

excitement of owning a much desired image which at the time the "drool over" wears off and disappointment drives the next search.

Discussion.

The aim of this study was to understand image collecting behaviour based on the collector's experiences, in particular the collecting elements of nature, function and process. This study revealed four themes which provide unique insights into the world of the image collector and normative collecting.

Recapturing the past and romanticising the image seems to reflect the prior ideas that the collector projects themselves into their collectibles (Belk, 1995; Muensterberger, 2004). This study begins to reveal the psychological processes which appear to allow the collector to develop some kind of symbiotic connection to the image and its content, with cognitive rehearsal and fantasy being central to this process in getting to know the image and the places and people contained within it. Emotional connection through linking the image to their autobiographical memories, empathising with content of the depiction and idealising the world or people depicted seems important to the normative collector when building an initial relationship with the image. Durost (1932) suggested that the individual assigns, through personal life experience, a personal meaning to the objects they collect. This type of reembodiment of the individual within the object or image has also been described by Pearce (1995) when she suggests "collections can be used to construct a world which is closer to things as we would like them to be" (p. 176). Muensterberger (1994) suggests that imbuing and attaching nurturing powers or what he terms "Mana or life force to objects makes them special, and also makes the owner of the object feel special that is the owner feels a unique relationship with the object" (p. 55).

Fisher's neurobiological model of love (1997) suggests three emotion-motivation systems involved in developing love. Fisher (1997) talked about love initially being characterized by the craving and desire for another, the lust for union. This seems to reflect the image collector's experiences of identifying what they like and initiating searches for their preferred collectibles. This lust for the desired image does not appear to be one-off experiences, each new hunt appears underpinned by a sense of lust and need to have "the next one". Activation of the attraction system is characterized by increased energy and the focusing of attention on

a preferred other, and "in humans this attraction can be associated with feelings of exhilaration, intrusive thinking about the loved object, and the craving for emotional union" (Fisher 1997). This attraction phase is seen in the image collectors' behaviours when engaged in cognitive rehearsal and fantasy about their preferred/ideal image, their experiences of finding it and "drool[ing] over it" and then their possession rituals of observing it, obsessing about it and engaging with it. Fisher (1997) refers to the final consolidating stage of love as activation of the attachment system, which is characterized by feelings of calm, security, sustain affiliation and emotional union. Collection management processes may parallel this attachment system, and McIntosh and Schmeichel (2004) suggests that acquisition allows the individual to care for the object as well as lavishing it with attention. It evident from this study that some image collectors may not build this long-term attachment and the image is quickly discarded when the attraction, or honeymoon period, wears off. For others the loved object is safely put away, e.g., in an album, and like a secure attachment revisited when required to provide support in dealing with the unfamiliar, e.g. going to the collector's fair, or to help generate collecting goals, such as a list for the fair. Muensterberger (2004) relates the psychological term, secure attachment to collectibles and terms secure attachment as animism and quantify this by suggesting that giving soul to objects allays fear and anxiety. Revisiting the collection and reviewing may also help the collector and the collection evolve.

Collecting as an evolving process has been proposed by various researchers (Belk, 1995; Chung et al., 2008; Pearce, 1998; Taylor & Quayle, 2003), and this study confirmed that collecting behaviour is a dynamic process and over time there is an evolution of the collection, what is collected as well as the collector. The nature of images collected changes as the collector works out what they like and desire, and secondary material can be used to enhance their knowledge of their primary interest or be used as props for fantasy. McIntosh and Schmeichel (2004) suggest that collector's go through an eight step process, and whilst a parsimonious version of this model is supported by the current study, the eight step model is not. The findings from the study suggest that image collectors appear to go through preparation and the hunt, acquisition and post-acquisition behaviours (e.g., possession rituals). In terms of the eight-step model there appeared to be variation in the pace at which individual collectors went through the stages and some stages were omitted by some collectors. In particular stages 1-4 were moved through quickly by most of the image collectors or the cycle began at stage three, which may reflect the collecting experience and

expertise in this particular image collectors sample, as all participants had well-developed specialist interests meaning they could search deliberately for what they wanted. Belk (1995) and Danet and Katriel (1989) describes these experts as connoisseur and suggests that connoisseurs are different than non-connoisseurs collectors [hobbyists, amateur] as it is the connoisseurs who are more interested in categorisation and have the ability to define and understand what is best to collect in terms of value, prestige and rareness of collectibles. Contrarily they argue that non-connoisseurs are passionate subjective consumers who can accumulate sizable collections and are more interested in the aesthetics of the object than its commercial and cultural capital. Within collecting this connoisseurship is seen as a natural progression within collecting as Strone (2010) points out, that connoisseurship has become an essential process for collecting, developing in England from the 18th century well into the 20th century. That is amassing of a collection of images, honing the image collection and gathering knowledge throughout the process could be considered normal processes within image collecting.

Post-acquisition for some was a short-lived experience with a desire to find something new soon after achieving their intended goal, but for others post-acquisition manipulation of the object through possession rituals were quite elaborate and sustained the collector for a period before the urge to hunt again took over. Collection management interest varied considerably within the group with some image collectors showing little interest and possibly omitting this stage of McIntosh and Schmeichel's (2004) model, like a file and forget phenomena (Bell & Gemmell, 2007). For others collection management was integral to refinement of their interests and future goal development, with one participant implying cataloguing, lists and ordering was in itself rewarding for him. This study also revealed that the experienced collector had generated large collection suggesting repeated experience of the hunting, acquiring and post-acquisition cycle. It seems each collecting experience helped the image collector become more discerning about their interests, what they want and what they can get in terms of availability, and this experiential information leads to a refinement in the collector's knowledge which then influences future decisions about what is discarded, kept and pursued.

Drivers for collecting identified in this study appeared to be a pursuit of completeness, speculation about what is out there, novelty, pleasure seeking and excitement. Completeness for many was not linked to collection sets or series, rather it was the challenge of trying to

identify the parameters of the selected collection sub-genre and setting goals to help confirm these limits which seemed to motivate collecting i.e. how many types of postcards are there in a given subject. It seems image collecting appears to activate uncertainty with goal setting helping to provide structure, and perhaps goal attainment diminishes the uncertainty until the next goal is set. Collecting a way of managing anxiety is noted in Muensterberger (1994) and Subkowski (2006).

Novelty, pleasure and excitement were also identified by most image collectors as a motivator for collecting, and interestingly some collectors derived enjoyment from the hunt, acquisition and post-acquisition but for some rewards came for specific processes e.g. 'the thrill of chase' - the hunt was most important. For most image collectors there was a sense of disappointment fuelling continued collecting, and for some this was acknowledged and cognitive strategies used to reframe not getting items as an opportunity to hunt again. For others little insight was shown as to why they felt compelled to start searching almost immediately after obtaining an object of desire.

Social connection and capacity for social mobility within the collecting hierarchy was important for some image collectors in this sample, with need for status being a deliberate pursuit and for others it was a side effect coming from the pursuit of completeness which had resulted in the development of highly valued and unique knowledge about their specialist interest symbolised in ownership of prestige collectibles and collections. Psychologically it seems that the image collectors had a desire, conscious or subconsciously, to be acknowledged by others and may be even looked up to. These social relationships appeared to validate the collector's efforts in becoming expert, and participation with high status authorities in the collecting field and writing books provided cultural capital, monetary gain and refinement as a collector. For this sample collector communities seem a pivotal cog in perpetuating the cycle of collecting behaviour, as they provided opportunities to trade, swap, garner knowledge and build social relationships and status with like-minded others.

In conclusion it would seem that collecting behaviour within the specialist genre of image collecting and the sub-genre of postcard collecting is varied, and even the nature of collectible within this very specialist field was diverse. There were however some themes across collectors in terms of function and process. The image collectors appeared to use cognitive-emotional strategies to help them connect with the content of the image, and this in

turn built up a strong emotional bond to acquiring and for some keeping the image. Recapturing past experiences, idealising images through cognitive rehearsal and fantasy, along with connecting the image to salient personal experiences made the image more subjectively important which in turn justified collector acquisition and ownership. Novelty, speculation about what could be out there, pursuit of completeness and sensations of excitement all seemed to perpetuate the urge to continue collecting, with particular parts of the collecting process being more reinforcing for some, e.g. the hunt.

McIntosh and Schmeichel's (2004) social psychological model of collecting was helpful in explaining the over-arching collecting process, however the sequential nature of the steps is questioned and stage eight does not seem to capture the refinement process which occurs post-acquisition. The propensity for the collector, collectible and collection to be honed/refined was evident throughout the narratives of the image collectors, with archiving, researching, social relationships and experiential learning associated with completing repeated collecting cycles being central to this process of refinement. With refinement seemingly came expertise, and potential connoisseurship, and this study revealed that there may be some collectors who are in pursuit of this prestige whereas for others the intrinsic reward of collecting drives them and becoming expert is a side effect.

Limitations and future research.

Whilst this study provides a first attempt at examining image collectors there are a number of limitations which should be considered. The study is based on a small volunteer, including ten white male participants who all appeared to be of significant status in the postcard collecting community. The representativeness of this sample and their experiences to other image collectors, particularly more novice collectors remains to be examined. Whilst it was intentional to focus only on male collectors due to potential gender differences noted in normative collectors (Martin, 1999), a next logical step would be to extend this work to female and ethnically diverse samples. Limited biographic information was known about the collecting sample, and sample were not assessed for hoarding or other disorders associated with collecting, therefore there is always the potential that someone with a pathological collecting issues has been unintentionally included. Finally, collecting behaviour in humans has rarely been consider and further research is required about the nature, function and process of collecting behaviour. Collecting research is essential as it may inform boundary

refinement work between normative collecting and hoarding disorder, which is increasing important given the inclusion of hoarding in DSM-5.

CHAPTER 5: Study Two

"It's my secret, my little secret. That little secret gives it a buzz".

IIOC Offenders Experiences of Gathering and Accumulating Indecent Images of Children.

To support comparisons, a similar method to the previous study regarding image collectors was employed to examine the personal experiences and meaning making of a sample of male IIOC offenders who gather and accumulate images of children (n=7). The volunteer sample was drawn from a convicted imprisoned population, and all participants self-reported having previously downloaded and saved indecent images of children (IIOC). IPA was considered to be a good method to illicit understanding of individual's experience, and has been effectively employed with samples of Internet sex offender sex offenders in regards to understanding their online offending which may include acquiring and accumulating IIOC (Winder & Gough, 2010).

Introduction

Babchishin et al. (2015) concluded their recent meta-analytic review reasserting the view that "offenders who restricted their offending behaviour to online child pornography offences were different from mixed offenders and offline sex offenders against children" (p. 58). This corpus of quantitative research has provided considerable information about the demographic, clinical and forensic profiles of those offenders who gather and accumulate IIOC, but "very little is known about the risk factors that may be unique to the CPO [child pornography only] population. One particular area of growing interest is the relationship between the characteristics of an offender's collection of child pornography and their level of risk" (Henshaw et al., 2015, p. 20).

Henshaw et al.'s. (2015) review of the child pornographer only literature draws attention back to collecting, reminiscent of early works by Lanning's (1992), Taylor and Quayle (2003) and Sheldon and Howitt (2007). As noted previously in chapter one, collecting behaviour is not well understood for legal collectors and the field is theoretically disparate and piecemeal, and this mirrors application of collecting theory to IIOC offenders to date. Chapter one identified core collecting units of the collectible, collection and the collector, along with three collecting elements nature, function and process. Chapter two revealed that considerable effort has gone into objectively characterising the nature of the IIOC offender, however little

is known about the relational experience between the IIOC offender and the images gathered and accumulated. The nature of IIOC and accumulations has also received considerable attention over the years, such as, Taylor, Holland and Quayle (1991), Taylor and Quayle (2003,) Sheldon and Howitt (2007). Taylor, Holland and Quayle (1991) offer the first classification system of IIOC which allows the judiciary to define with greater accuracy the nature of images, their severity and illegality, as well as providing a system to classify the entire nature of IIOC offenders' accumulations. This early classification system has been developed and updated in sentencing guidelines, such as, the Sentencing Guidelines Councils (2007) SAP classifications and the Sexual Offences Definitive Guidelines ABC classifications (2014) (see chapter two), but from a collecting perspective these externally derived classifications systems ignore the subjective meaning to the owner which may be most revealing of their inner desires and interests (Belk, 1995; Johnson, 2014; Pearce, 1994).

The focus of forensic research into the nature of IIOC offenders' collections has often focused on the total amount of images (size) accumulated and the number of specific types of images in sub-collections, e.g. number of COPINE level five images and their relationship to deviancy. The original sentencing guidelines, based on the original COPINE research (Taylor, Holland & Quayle, 1991), used size as a starting point for sentencing IIOC offenders and the emphasis on size of collections/sub-collections is reflected in early work into Internet sex offenders written by Lanning (1992), Taylor and Quayle (2003) and latterly, Sheldon and Howitt, (2007, p. 106). What constitutes a large, medium or small collection and how it relates to deviancy remains ambiguous, and McPherson's (2012) benchmarks based on a review of Scottish case law has not been confirmed by others e.g. Glasgow (2010) suggests that size is not related to deviancy rather deviancy is related to overall involvement with IIOC. Also the few studies that have collecting components have found mixed results about size of IIOC collections. McCarthy's (2010) study of dual offenders, contact only and Child Pornograper Only (CPO) also found that dual offenders' collection sizes were larger and a distinguishing factor between the three groups. However this could not be explained by time spent online as no difference was found between dual and CPO offenders. In contrast, the other empirical studies which have examined aspects of IIOC offending and collecting, that is Long, Alison, and McManus, (2013 and McManus, Long, Alison, and Almond, (2014) found that CPO were the group that would have larger collections. Unlike McCarthy (2010) they found that IIOC only offenders spent more time online searching for IIOC.

Collecting theory would also dictate the focus on size and external definitions of relationships between images in an IIOC accumulation is a rather simple interpretation of the nature of collections/sub-collections. It ignores the subjective mean making in regards to images and how offenders group images in accordance with their own unique ideas of how IIOC connect with one another. For instance applying externally derived classification systems to trophies kept by serial killers (Schechter & Everitt, 2006) would probably miss relationships between seemingly innocuous objects even though in the offenders mind these objects are clearly connected and reveal an historic interest and possible ongoing interest in murder or sexual murder. The IIOC offender's personal narrative about the importance of images and their ideas on the relationship between objects in their collection seems central when understanding whether a collecting aspect exists in IIOC offending. permanency in a collection (Lanning, 2010), there is also a dynamic process of gathering, accumulating and refinement as the individual develops expertise in their field, pursues novelty and hones insight into what they like and what is of personal importance. To meaningfully comment on any potential collecting aspect to IIOC offending it seems fundamental to understand the dynamic relational nature of the collection, in particular the IIOC offender's experiences of this interaction with their items and accumulations, along with personal decision making about what to get more of, discard or keep.

How IIOC offenders go about gathering and accumulating has been primarily considered from the perspective of actual sources and methods used to garner IIOC, such as USENET and GNUTELLA (Sheldon & Howitt, 2007). Cognitive distortions have also been another focal point with quantitative research consistently showing IIOC offenders have less sex offender related cognitive distortions but may be more IIOC specific distortions (Beech et al., 2008 Elliott et al., 2009). Suggested IIOC distortions linked to collecting have been, misuse of collecting terminology to describe their behaviour as a post-offence rationalisation and over-coming internal inhibitors by dehumanising the child in the image (Taylor & Quayle, 2003; Sheldon & Howitt, 2007).

What the gathering and accumulating process involves, and how this collecting process evolves overtime has never been considered directly from the IIOC offender's perspective. A social psychological model of collecting has been offered by McIntosh and Schmeichel (2004) who have conceptualised the process as a self-reinforcing cycle involving eight steps. Whether IIOC offenders sequentially go through McIntosh and Schmeichel's (2004) model

remains to be tested, and it is unclear if some steps may be omitted as there is evidence that cataloguing and organising is not important to all collectors (Nordsletten et al., 2013; Pearce, 1998; Sheldon & Howitt, 2007). McCarthy (2010) also found no differences between contact and IIOC only offenders in regards to trading, paying for, concealing or organising their collections of indecent images of children, but those who engaged in a combination of these behaviours were more likely be part of the mixed offender group who had contact and IIOC offences. Level of involvement in IIOC gathering and accumulating processes may be a better indicator of a more pervasive sexual interest in children than volume, image content and collection management processes alone.

Function from a collecting perspective refers to what the person derives individually and collectively from the objects. Whilst some have commented that it is difficult to see any other rationale than sexual gratification for having IIOC (Beech et al., 2008), collecting theory and research suggests the collectible and collection may serve multiple psychosocial functions to a collector and identified various motivators driving the behaviours (Carey, 2008, Formanek, 1991). Expert opinion papers, qualitative studies and quantitative research have also identified multiple functions for IIOC offending. For instance, financial motivations (Carey, 2008) set completion (Taylor & Quayle, 2003), goal-setting, (Sheldon & Howitt 2007; O'Donnell & Milner 2007), problematic Internet use (Taylor & Quayle 2003; Quayle, McKenzie, Bannon & Glynn, 2015), pathological collecting (Sheldon & Howitt 2007), developmental issues, such as, Asperger's Syndrome (Mahoney 2009), outlet for masturbatory fantasy (Middleton 2008), childhood trauma (Taylor & Quayle, 2003; Sheldon & Howitt, 2007) as well as esteem building Calder (2004). Many of these functions of collecting have been theorised and hypothesised as being involved in the behaviour for those who are normative (legal) collectors (Belk, Wallendorf, Sherry & Morris, 1991; Muensterberger, 2004; Belk, 1995; Pearce, 1993, 1994, 2010). However, they have not been identified through empirical studies within normative collector groups and to date no one has asked IIOC offenders specifically about the function and process of gathering and accumulating IIOC and what it means to them.

Social relationships and opportunities to display, share or talk about one's collectibles and collections with like-minded others seems highly important to collectors of legal objects (Belk 1995; Belk & Wallendorf, 1994; McIntosh & Schmeichel, 2004; Nordsletten et al., 2013; Pearce, 1994; 1998). Collector communities appear to provide the opportunities for

social hierarchies to form, to develop expertise and acquire, swap, discard and sell collectibles (Carey 2008). Involvement in paedophilic social networks and sharing IIOC images is an aggravating factor from a judicial perspective, and research consistently finds that some IIOC offenders frequently share images, sometimes in high volume ways with interested others, e.g. peer-to-peer file sharing (Sheldon & Howitt 2007; Wolak et al., 2013). Taylor and Quayle's (2003) Problematic Use of the Internet model suggests that social contact with like-minded others appears to serve multi-functions which maintain and perpetuate the cycle of offending involving IIOC. Paedophilic social communities built around IIOC are thought to encourage knowledge building, increased social status, advancing technical and searching skills, validates offending behaviour as normal and non-harmful, as well as enabling offending behaviour linked to distribution, production, possession and selling (CEOP 2012; Ford & Patterson, 1998; McGuire & Dowling, 2013; Wolak et al., 2013). Similar ideas have been suggested in the collecting literature, in which involvement with collecting communities and connoisseur clubs permitted social interaction and relationships with like-minded others which were thought to support knowledge building of the collectible(s), define parameters about what is available which in turn supports collection development and refinement (Belk, 1994; Johnson, 2014; McIntosh & Schmeichel, 2004; Nordsletten et al., 2013; Strone, 2010).

The relationship between objects/images in the IIOC offenders accumulations have typically been considered from an outsider perspective, with the judiciary and researchers attempting to extrapolate about risk of re-offending based upon the total amount of images possessed, the diversity of IIOC and the quantities of images depicting certain activities and types of children i.e. total number of category A images (Quayle, 2010; McManus et al., 2015; Long et al., 2013). Whilst this has provided useful information, the method contradicts the collecting literature which theorises that collections and the linkages between objects is a very subjective process which reflects the inner world of the collector and their unique construing about how the objects/collectibles they desire fit together to give some sense of completeness (Carey, 2008; Elsner & Cardinal, 1997; Smith, 2005). To understand the nature, function and processes associated with collecting, it is imperative to understand the personal experiences of offender in regards to their ideas on the nature of the IIOC and the accumulation, and the relationship, if any, between images and sub-collections. Understanding the IIOC offenders' interaction with the images both current and historic, as

well as motivators for possession and usage seems pivotal if we are to comprehend any potential aspect to IIOC offending.

To date no one has explicitly examined the IIOC offenders' personal experiences of gathering and accumulating indecent images of children, specifically through a well-defined collecting lens. Interpretative Phenomenological Analysis (Smith et al., 2009) was considered the most appropriate method for capturing the IIOC offenders collecting experiences. Using the IPA, participants were able to think about and describe how their accumulating behaviour functions in their life, what the images mean or relate to, how important their collection is to them, and how they manage or work with their collection.

Method

Participants.

A potential participant sample was identified through liaising with prison authorities at a large UK sex offender prison. Leaflets addressing the study were distributed and out of the 550 prisoners contacted seven prisoners self-reported as downloading and saving indecent images of children and were willing to take part in interviews concerning their IIOC offending behaviour. The sex offenders who did not take part were either offenders who did not download and save indecent images of children or did not want to be interviewed about their image offences.

The sample consisted of seven white English males with an age range between 41 and 61 years. Most of the participants were either single or divorced with only 2 participant reporting being married at the time of data collection. Generally participants' were educated to high school standard with only one participant gaining a university degree. Occupations were varied ranging from the manual worker, semi-skilled to a company director with one retired participant and one who did not make that information available. There was a wide range of approximate images accumulated, the least reported being 30 and the most accumulated was approximately 51,500 (see table 8).

Interviews.

The interview data was collected using semi-structured interviews. The interviews lasted 45 minutes to 2 hours. The interview schedule was developed from existing research pertaining

to collecting literature and literature surrounding Internet sex offenders and their gathering of indecent images of children. The interviews were conducted between May 2012 and September 2013 and all interviews were recorded via Dictaphone and transcribed verbatim. After each interview all participants were debriefed and were asked if they had any questions.

Analysis/methodology.

Little research has been undertaken to explore normative collecting or explicitly the collecting of images and this is also true of sex offenders who have IIOC accumulating behaviour. Phenomenological Analysis was thought to be a suitable framework for the examination of the experiences of those individuals who have accumulated IIOC. Other qualitative methods such a Thematic Analysis and Grounded Theory were considered for use. However, unlike IPA, Thematic Analysis does not give a theoretical or epistemological standpoint for how and why the researcher should collected the data or how the researcher should analyse the data rather it represent primarily a method of collecting and interpreting data (Braun and Clarke, 2006). Grounded Theory (Glaser & Strauss, 1967), which Smith et al. (2009) see as an alternative to IPA, was not thought appropriate for undertaking this qualitative research as the researcher was not trying to build a theory of what collecting is but trying to explore the collecting experiences and behaviour of IIOC accumulators.

IPA is a qualitative and analytical method of analysis which draws on the participant's expert experience of how they make sense of their world and their experiences of a phenomenon in their life (Smith et al., 2009). A major theoretical underpinning of IPA comes from the concept of hermeneutics, which concerns the theory of interpretation. Within the framework of hermeneutic thinking the researcher interprets the data using objective psychological standpoints or theories that elicits an understanding of the phenomena at hand, moving away from the merely descriptive data of the participant to a more abstracted understanding of the phenomena overall. The guidelines for use of IPA proposed by Smith et al. (2009) advised the reading and rereading of transcripts to gain an overall understanding of what is being reflected on by the participant, the creation of initial thoughts relating to the data which highlight exploratory or emerging themes and final construction of super-ordinate themes. (For full review of the methodology see chapter three).

Data collection

Collection of interview data from the participants was undertaken only after it was passed for ethical approval by a UK University and approved by the National Offender Management Service (NOMS). The sample was identified through distributing invite leaflets and consent forms throughout the whole prison population, via wing officers. Handing all prisoners the leaflet was considered the best way to avoid offenders from identifying themselves to the rest of the prison population, thus avoiding any negative impact to themselves. All prisoners were asked to return the consent forms whether signed or not to the wing officer who would then return them to the researcher.

It was explained to the potential participants that the research sought to explore their own understanding of how and why they accumulated indecent images of children. Participants were informed of the anonymity and confidentiality of any data taken from interviews. The purpose of the interview, boundaries of confidentiality and confirmation of consent was again confirmed prior to undertaking the interview. After informed consent was given the participants were interviewed in a private office within the prison building.

Results

Themes

From the data generated by the interviews a number superordinate themes where identified. These themes were based around participants' accounts of collecting indecent image of children.

Table 8: IIOC Accumulators, IPA Themes and Subthemes

Themes	Subthemes
1. Dehumanising the victim/humanising the self	Removal of distraction and removal of guilt/shame about self
2. Creating the ideal	Relating to self-experience Puzzle building
3. The consequence of the grass is greener	The hunt for the novel. Becoming experts
4.Images as medication	As a mechanism to treat sexual frustration/anxiety. A quick fix through cataloguing.

Theme 1: Dehumanising the victim, humanising the self

Most of the participants seemed to be troubled to some degree by the act of viewing indecent images of children (IIOC) but seemed to adopt psychological methods that allowed them to block negative feelings associated with the fact they were viewing a child being abused. The IIOC offenders chose to deal with the images and what they represented in a clinical way by rejecting the images as involving innocent children or changing how they perceive the image to negate feelings of guilt and shame about viewing, possessing and accumulating IIOC. In effect the participants dehumanised the children in the image, and in some cases humanise themselves by presenting that they cared for the child, although this seemed an act of self-interest.

Participant 1:"I think you have to quite seriously supress, perhaps what would be classified as, in inverted commas, eh, "normal" adult emotions to be able to view things that I was viewing and child pornography was one of those things. So ehm, I don't know if you would feel anything for them because essentially you.ve blocked that out to allow you to do it" ... "You know I viewed it as a body type as opposed to a child and it didn't bother me that it was a child".

Participant 5: "Most children that age they've got, were are talking prepubescent here, they've got no real defining features about them".

Participant 3: "It's a very limited thing it's just the same picture with different parts".

In terms of perception in many cases the individuals were trying to alter their perception of the images they were downloading, and in most cases accumulating, as a way to divert negative feelings and justifying the use of the IIOCs for sexual self-gratification

Participant 7 suggests that, "I was telling myself these are small women and that is a comfort story to give myself permission to carry on, to say that this is ok because they are just small women".

Participant 6 points out, "I wasn't looking at the top half, so that basically cuts out that there's a child there any way....psychologically I still know the rough age of the person. At the end of the day I cut it off above the chest or belly button, kind of thing, and you can't, you don't see it as a child anymore because you took that section away... I don't know it's like taking the person out of it, the face gives you the person, so you've taken that person out of the equation".

For those IIOC offenders who tried to convince themselves that they were more empathetic and humane, offered acknowledgement of the child but then focused on social signals, such as smiling, which was used to negate the notion of abuse and perhaps promote the idea of collaboration. These social signals of collaboration were then used to justify their offending and continued engagement with illegal images.

Participant 3 "I prefer to find images that appear to demonstrate a kind of willingness a kind of cooperation rather than coercion". When asked why he went for that type of image he continued, "I suppose for two reasons, one being cause I found it psychologically more attractive, uhm, uhm. I wasn't interested in force or aggressive nature of some and I have thought about this a lot since my conviction and erm I suppose it did kind of absolve me of guilt in a way if you like. I could look at it and obviously I knew it was wrong, what was happening to the girls and also me looking at it but if there was an appearance of it being consensual if you like, even though I knew it couldn't be it made me feel less guilty".

Participant 6 reflected similar ideas, "you don't think about the child, you think about it as the person who is enjoying, is smiling. It's always smiling it looks happy. The having the laugh, and that for me was the thing".

Whether dehumanising the victim or humanising self, the function seems to point to a psychological process which helps the IIOC offender overcome internal barriers and

emotions which may prohibit offending. Dehumanising the victim seems to help the IIOC offender convince themselves there is nothing wrong with what they are doing. Humanising self may be an attempt to convince self that they are still an empathic person even though they are engaged in activities which leads to abuse of children. In summary distorted thinking processes, or cognitive distortions, may enable the IIOC offender to alter or negate any feelings of wrong doing, guilt and shame and therefore continue with their illegal image accumulating behaviours.

Theme 2. Creating the ideal

Within this IIOC offender group there were differing processes that afforded the participants the opportunity to attain ideal images. Some participants had within their mind an idea of the type or specific types of images that would be ideal. Looking at image after image they sought to establish the perfect image. This perfect image may not exist as a single image or they had failed to find this perfect image during Internet searches, resulting in less ideal images being built up or layered within the individual's mind, and this fantasy process of creating the ideal may take the illegal collector closer to understanding their preferred image.

Relating to self-experience

Some of the participants seemed to lack insight, reporting little understanding about what attracted them to preferred images, however other IIOC offender's narratives revealed connections between the IIOC and personal historical experiences. When asked what made an ideal image, participant 5 was able to pinpoint a personal childhood experience that he understood or considered to be a salient experience to why he was attracted to the indecent images of children he had downloaded and saved.

Participant 5 relayed a story of consensual underage sexual play between minors which included himself and a girl of a similar age. He stated,

"it would probably be the first time I saw a naked female...when I would say I was 10 or eleven, similar age, so that's the first thing, that first female. So I compare it with that sort of first sighting that had somehow got in" (Participant 5).

Other participants, such as, Participant 4 related that they did not understand why they had downloaded and saved or were attracted to particular images of children. However, they

relayed personal experiences of early sexual abuse, but did not discuss this in terms of a negative experience rather the recollections offered pointed to moments of enjoyment.

Participant 4 stated, "When I was about 4 or 5 I was sexually abused and the abuse came from my cousin, these cousins, one of them abused me to the point where I remember her sucking my penis and I don't know if I inserted my penis into her or if she got me to insert into her. I was about 4 years old and I became very sexually aware at a very young age".

It could be proposed that participant 4, in retrospect, may have viewed his abusive experience in an illicit but exciting way, this may be mirrored in how he describes his relationship to the children in the abuse images that he collected, stating:

"At the time the particular images that stuck out for me were the children. I think at the time was the fact that they had developed breasts and their breasts were the, to the point where the bikini top had been pushed forwards so you could actually have the idea of perhaps dipping your hand down there. Yes fantasy comes into it, ooh I wonder what it does look like and that sort of thing. You know even if you get just a slight bit of skin down the side of the cleavage sort of thing, or down the groin you think ooh" (participant 4).

Pleasure is acquired from the ideal image in regards to content and activity, and for some connecting the image to prior pleasurable experiences drawn from autobiographical memory seems to enhance the emotional feelings and excitement. Although not mentioned, obtaining images linked to personal abuse experience could also reflect a desire to have control over a time in their life where they felt over-powered, and therefore obtaining the image and taking control of it may be about reducing anxiety. Participant 6 clarifies this feeling of the ideal image relating to self-experience by way of paralleling his experiences within the images he would most cherish. He relates that in order to negate his feelings of worry and anxiety, which he associated with living a stressful adult life, that he propelled himself through child abuse imagery back to a time when he felt comfortable, loved and enjoyment. Identifying with the child in the image allowed him to re-experiencing these 'pleasurable' childhood experiences in the present.

Participant 6 relayed that, "I need to make myself feel good, so what did I do. I looked at pictures to make me feel good. The pictures where of boys because I was abused when I was younger and for some reason that connection made me feel good... it had to start with something that looked like me as a child. I had to relate, to see my abuse, it had to be similar to me. For some reason I don't know why, it's obviously those crossed neurons

that related to how I looked. I wanted to be that person, how I felt for some reason as a child"... it's a personal thing and all I know is when I look at those pictures and you look at your pictures from the past, they have a similar look and I think, well why is that. I never knew why but I suppose it's from the abuse. I am pulling it from there and to have that, maybe it made me feel secure that I've got that and that was me, and I got a buzz out of it. It's my secret, my little secret. That little secret gives it a buzz and that little buzz kept me stimulated".

From this account it could be argued that some child abuse victims may not see their abuse experience in a negative light but somehow feel that it was a time of sexual excitement or care, and IIOC may act as conduit to return to these prior 'positive' sexual experiences. Creating the ideal also seems to be about gathering images which permit, in a controlled way, access to their own emotional experiences.

Participant 6 pointed out, "When I was abused, I was, cause you're not getting comfort at home, this teachers doing all this, you're getting attention. So attention makes you smile up. I have to have the ones that are looking smiling and happy".

Regardless of the accuracy of the IIOC offender's recollection of their childhood abuse as a pleasurable experience or as masking anxiety and fear, either way the emotional experience provoked by the image is likely to strengthen the IIOC accumulators desire to seek out and possess indecent images.

The ideal through puzzle building

For some participants the process of understanding the ideal images to be accumulated may not be associated with just a personal experience. Simply not understanding why one is not satisfied with a certain image, seems to have led some IIOC accumulators to try and build up the identity of their ideal image or victim. This ideal image is developed through a deductive process in which the IIOC accumulator starts to refine their ideas of what they desire.

Participant 4 "I suppose in the end you would build up a perfect image. So maybe in the beginning it was just blonde hair then I worked out shorts and that or whatever, then you get to that. Then in the picture you would have a smiling blond haired boy maybe the image of a man doing something playing with the child and that, for me that was the ultimate thing".

Participant 7 "To me it was kinda looking for the wow factor, that is, what you are looking for, the ultimate goal. You think wow she's gorgeous, she's my ideal women, but it is very rare that you are gonna find it, so your always gonna be looking for something that's close, it may have two or three girls whatever they may be, you could have two or three girls that if you put them together they might make your ideal women"... That's what you're doing within your head your flicking from one to the other repeatedly"... to a degree in your fantasy world you can put two or three girls together even if you go down to the shape of the body the curves, the hair the smiles, so that kinda thing".

These accounts seem to suggest that creating fantasy is an important factor for some of the participants, and may also help with managing the feelings of disappointment and frustration associated with not achieving satisfaction from the images they find. In effect they have to rely on their own imagination to help build the ideal images, which over time could lead to more frustration as the gap between what they want (based on fantasy) and what is available increases. How this process impacts on subsequent accumulating of IIOC is unclear, but it could lead to indiscriminate acquisition when trying to capture the ideal, or a progression to making their own images in line with their ideals.

Manufacturers of IIOCs appear to mimic normative collection characteristics by creating sets or series of images. Completed sets of related imagery provide the IIOC offender with a storyline, and not having all the set or story line could be a motivator for searching and hunting. The hunt for missing set images likely results in the collector searching through a multitude of images to achieve their goal of set completion, and by proxy experiential learning may occur resulting in greater knowledge about what is available, what one likes and how to obtain the IIOC. Whilst the notion of set completion is important to manufacturers of collectibles (Belk, 1995), the importance of sets to collectors is less obvious with some IIOC accumulators seeing them as unimportant whereas others felt compelled to complete the sets.

For instance when asked was it important to complete a set **Participant 1** stated "it wasn't for me it wasn't part of what I was doing", and **Participant 7** indicated that within sets he only picked out the images he liked "I was very selective of what I wanted them to look like, sort of poses would turn me on more than others". Whereas **Participant 3** was highly motivated by set completion stating,

"It was an impetrative, the drive was that some pictures came in sets. You might come across an odd picture and think she's attractive and then you come across another one and then you think I am sure that's the same girl in the same situation. She might be on her own or whatever and then you think to yourself there's clearly a set of photographs here and then it became like a childhood thing were you have to collect sets, because I suppose she appealed to me on the sense of the original image and then you wanted to see were the sets went and I suppose these pictures, regardless of what they contained gave me more information about background and the circumstances, if you like, which made it more real for me" (Participant 3).

Participants accounts suggest that set completion may only be important for a minority of IIOC offenders, but for those who like sets it can be highly motivation and integral in influencing their choices to pursue and possess indecent images of children.

Overall when creating the ideal image many participants relied on personal experience to invoke what they wanted or needed to satiate their desires, while other less insightful IIOC accumulators did not know what they liked. Those offenders who lacked insight often used a more incidental and trial and error approach to searching for images, with each trial offering part of a puzzle towards their ideal. These individual also seemed to prefer IIOC which were already imbued meaning by the manufactures, such as the storylines offered by sets.

Theme 3: The consequences of the grass is greener

Dissatisfaction and disappointment post-acquisition was apparent in illegal image accumulator narratives, as they nearly always held the view that there must be something better to get, something new, something that's more arousing or exciting. From this standpoint the allure of novelty, excitement and possibly pursuing an unobtainable ideal which never feels good enough or lives up to the fantasy leads to a belief that the 'grass greener' with a new or the next image imbued with a sense of it will better. These cognitive-emotional processes seem to be a major motivator for IIOC offenders continued pursuit and accumulation of IIOC.

When asked how he felt about finding something new,

Participant 4 stated, "If I find a new images that I like, it's good... If I found a new image it felt exciting and erm if I found a new image and that image, dare I say, was good quality, if it was something that ticked all the boxes in my head that made me want to masturbate I wouldn't be satisfied with that one image, I would have to find the rest of them. And it's not about the previous question (regarding sets). It's not about the full, but it's always, always what else is there that's better. What's better, what's better"?

When asked how long would your interest in a particular image last?

Participant 6 stated, "Eh, until I can find something better. So that would last a while, until something came along better... I think it's the wanting to get that picture, to get that ultimate picture. Why do I want to find something new, I mean I have got plenty of images, why do I need to look? Its excitement isn't it, for me it was excitement'.

Participant 1 "There is always something different something new. And it was a matter of, well sometimes I perhaps just sit down there at night and think well lets literally just start off with the word porn as a base point, scroll down to number 127 on Googles lists, let's see what that one is, you know, and see where it took you, that's what the process was".

Participant 3 uses metaphor to explain the need to move on to something new,

"If you lived in the most beautiful place on earth and every day you kept seeing the same view, somebody visits, they walk out the door and see the most beautiful vista, they go wow. You know you've become immune to it".

In effect within most of the sample there was the feeling that they could never be satisfied, and any enjoyment would be short-lived, with participant three indicating a process of behavioural habituation in which repeated engagement with the image led to a decrease in excitement, it is like he gets used to it and needs something new. The already accumulated "ideal" imagery could never sustain its initial lustful attraction and in reality the ideal could only be attained through further hunting and fantasizing about the perfect image which it is believed will be better and ultimately satisfying.

Participant 3 described his ideal image as having the "X-factor". When asked if the X-factor changed when or after he looked at images **Participant 3** replied:

"It must do because once the X-factors gone in one, in that sense there is another x-factor, a thousand X-factors".

Participant 1 "You know adult pornography turned into a more dev... I've said deviant in terms of pornography, but what's deviant at the end of the day. I don't know some of its boundary pushing as to, you know, if I came across an image of a women bound to a chair it was neither here nor there but the fact that she's tied to a chair and it's made acceptable to you and then you might actually, lets type, lets search torture, you know and it goes on and the more deviant it got within that was child pornography"

This constant need for something better or something to make up for the dissatisfaction of the last encounter, could encourage the development of large collections. The experiential learning which occurs alongside continued engagement in the collecting process could result in more knowledge and understanding of illegal pornographic images which in turn stimulates other interests and searching for more novel IIOC. This refinement of knowledge regarding what IIOC are potentially available and greater understanding, typically through deductive processes, of what is liked could also lead to more anchored small collections.

The potential growth of collections or accumulation may, in some cases, not necessarily take a long time due to the medium of the Internet.

Participant 1 suggests, "You would start off with something basic and it would be just link to link. You know you would click on that and it would bring you to some website with links on it and you would click that link that link takes you to another one, click on that link, it would take you to another one. Look at those images, no. go back to that website click on that link takes you to another".

This movement from one picture to another in order to gain understanding or just finding imagery that one liked, will eventually through experience of just doing and seeing lead to a better understanding of how to gather IIOC what to gather, how to manage the accumulated images to keep them safe, as well as greater insight into their sexual preferences and arousal patterns. This process of refinement and developing expertise in IIOC accumulating behaviour could result in possession of smaller amounts of images overtime.

Participant 1 states, "I mean there were many images that I didn't, I must, I must have seen that I didn't save... In the privacy of your own home nobody knew and within that adult pornography turned into many forms of adult pornography...I suppose you build up in your mind the things that you like, and that's, it's an evolutionary process cause it goes on and on and on and on."

Participant 3 "It wasn't a deliberate attempt to gather as much as possible. It was almost if I found one or was given one and that kinda appealed to the specifics of the images I was trying to look for then I would keep that one and then I would go through

them all and kind of weed out any that I didn't want, so yes there were hundreds, but it went down to dozens really, once I'd edited them if you like".

Participant 6 suggests that, "I think you would look for new images but because if you're not an expert your just coming across the same old pornography" ... "Expert in looking, getting and it would have to be with an erection or something like that".

This idea of becoming expert and 'weeding out', points to the concept of the 'connoisseur' collector (Danet & Katriel, 1989; Thorne & Bruner, 2006) collector who has become a specialist in a certain field, knowing how to get what they want, what to reject and only having the best from their subjective perspective. For collectors in general, becoming a connoisseur involves refinement of knowledge in terms of personally desired collectibles, collecting technique and collection management processes.

Participant 6 states; "You get more expert as you go along. In the end you look at sites that mention anonymiser and you think what's that, I have never heard of that before and you look it up and you find that it's an item for doing scans of 18 bit and this that and the other to stop adverts and things like that but you're looking at that and thinking I will just get that for anonymising if this is anonymised I can go in and look and no one will actually see. Now not having to worry about the consequences you think. You get expert with the more you learn".

Participant 3 states, "If you like collecting there was a continuous effort to collect. I mean as I say it would run into hundreds at one stage and then I would go through them and be quite ruthless and say ok that one not really doin it and that ones not"

Participant 6 states, "vast range, that looks like whatever, then as you get expert you narrow down and anything else is not the same as that, say two lads playing around, because now you're looking for things a smiling image."

It seems this pursuit of novelty, excitement and betterment, along with a desire to escape disappointment is integral to perpetuating and maintaining illegal collecting behaviour, and this continual hunt, acquiring and post-acquisition engagement with IIOC and secondary materials such as adult pornography permits for some a sense of expertise.

Theme 4: Images as Medication

Some of the participants suggested that they had psychological problems, such as anxiety, or viewed their behaviour as an uncontrollable process when downloading and viewing indecent images of children. Accumulating behaviour appeared to alleviate unpleasant and

pent up feelings, and for some participants it was like they were self-medicating with IIOC. Others hinted that they had a history of indiscriminate collecting of things regardless of the need or want for the items, while others described a more systematic and deliberate collecting strategy involving archives and lists of what they had. This sense of feeling out of control and driven by internal urges or the need to continually making lists, points to the potential for compulsive behaviour and obsessive thinking.

Participant 3, who states, "I'm afraid I am a lists person, I do that with everything. I make lists that's just who I am".

In terms of compulsion **Participant 7** stated,

"Collector!! My term would be addiction an addiction not just to looking at these images but to finding stuff that will treat your fantasies. So basically it's a case of you will go through endless websites. To a degree you don't care how long it takes you to find these images, you're looking for. Something that will turn you on, whatever, you will look for them and if you can't find them you will go somewhere else......you would go through the whole lot hoping you would find somebody that would within that area, that catchment or whatever you want to call it, will treat your needs".

Sexual arousal seems linked to this constant thinking and urges to act, and when asked why they searched for, downloaded and gathered indecent images of children participants stated:

Participant 3 "The addiction that their arousing. It's as easy as that".

Participant 6 "Well it's like drugs isn't it when people take drugs they want more and more till they get onto the heavy stuff".

Participant 4 talks about the accumulating behaviour as an addiction also, and describes how this causes the individual to perpetually go back to the behaviour as a kind of fix.

Participant 4 "It's a drug that you, once you've had it you've had your fix the come down is so horrible so negative, the comedown may last an hour but then it [the need to view abuse images] creeps back again".

In terms of idea of "need" and the potential of this "creeping back" or needing to continue to gather through an unmet urge or need to escape the "comedown", suggests that the IIOC may be a negative reinforcer by taking away subjective distress as well as positively reinforcing through generating excitement.

Many of the participants talked about feelings of fear of detection and decided to destroy any evidence of their IIOC accumulations, however as the fear diminished through the passage of time or by identifying concealment techniques the need to return to seeking IIOC resurfaced and triggered a relapse back into IIOC offending. This proactive management of accumulated IIOC due to greater awareness of the legal consequences suggests that collection size may be dependent not only on developing expertise but developing criminality. For instance when asked about collection management processes, i.e., how they saved, discarded and stored images.

Participant 6 "I did at one time just save them all on a disc and in the end if I didn't look at these images what's the point in keeping them, if I get caught with them they would stack up".

Participant 4 points to the constant downloading, saving but quick deletion of images which suggests a behaviour initially motivated by a desire to gain pleasure followed by post-offence shame.

"so what would happen with those images was I would end up with a set of 300 images over an evening, all saved to the computer and they would be all filed away and then it gets to the point of ejaculation and the shame and the guilt would be so much I would delete the whole lot... Once I have had sexual satisfaction if you can call it that because I don't think I'm satisfied 'cause I would to go for it again" (Participant 4).

Although some participants seem to be self-medicating through sexualised coping, there is the potential that some may need to receive psychological or medical help for their accumulating behaviour, as their compulsions to engage in the collecting behaviours seem out of control. This seems to manifest in differ ways with disorganised eclectic accumulations or collections ('junk") or to highly organised and systematised collections.

Participant 3 "I am a list person.... That's who I am... my best is never enough, I have to have everything, everything's got to be right everything's got to be orderly and in a row, dated in chronological order or whatever".

Participant 6 "In the end I had a farm, 3 Mercedes, tractors ploughs, never used them. I had ploughs but they had to be there it was a matter of junk..... I would have to have grinders and I would collect tools, I've had for years and never used the damn things. That will be really handy that will and someday I will use that".

Management of their accumulations, in particular cataloguing or ordering seemed for many to be a mechanism that allowed easy access to satiate a sexual need or to overcome disappointment when their hunt for the novel or ideal did not produce good enough results.

Participant 6 "I didn't want to waste time looking for stuff, straight to that to get your fix and go. That's how I want to be".

Participant 1 "you know, inevitably with an Internet search you wouldn't just type in "small breasts" and instantly you find an image of what I, of what was there for you. It might be 5 minutes later it may be ten minutes later an hour later, you know, whatever. But knowing that you saved it, clearly you can go instantly back to it without the process".

The safety in having access to a personal collection seemed to increase a sense of control, with knowing the 'fix' for his current problems and emotional distress is readily available.

Participant 7 "Just in case, you may get interested later on. Even in 12 ... 2 years' time they may be relevant so you just keep them as simple as that. There was a girl, I think was called Diana and she was my favourite, I didn't delete any of hers, I didn't delete any of hers at all. I kept every single image and stuff like that"

This theme suggests that for many IIOC accumulators the compulsion to use indecent images was strong and at times seemed beyond their control. Sexualised coping using indecent images and collecting behaviours, such as the hunt and ordering, seemed to alleviate the distress associated with overwhelming urges. When internal barriers were overcome, acting on these urges seemed to trigger shame for some offenders resulting in a temporary removal of images and stoppage of the behaviour. However for others the use of indecent images of children were a rationale choice as they enjoyed the sexual arousal, and concern about collection management issues were more about avoiding detection and having easy access to sexual stimulus.

Discussion

This study aimed to examine the personal experiences and mean-making of a sample of male IIOC accumulators. Cognitive mechanisms such as dehumanising the victim and humanising self was an important process IIOC offenders went through in helping themselves to overcome internal inhibitors which may stop them offending. This idea is consistent with Finkelhor's (1984) four pre-conditions model which suggests, for a sexual

offence to occur the offender must initially be motivated to offend against children and then they must overcome internal and external barriers to provide an opportunity to offend. IIOC offenders appear to use offence specific distortions such as only choosing images of children "smiling up" or signalling apparent collaboration, to help overcome internal barriers. Whilst IIOC only offenders are thought to have less offender distortions than contact offenders (Babchishin et al., 2015), prior research suggest they have specific distortions associated with IIOC (Sheldon & Howitt, 2007; Prat & Jonas, 2013; Taylor & Quayle, 2003). This study provides further support for the latter hypothesis. Implicit in some offenders' narrative was an idea of social comparison with other offenders who they evidently seen as less humane, with comments about not personally using images of children suffering or being hurt. Connection with personal experiences of abuse, which they articulated as being positive experiences, appeared to help the IIOC offenders emotionally connect with the content of the images and may be reflect an attempt at normalising and minimising the harm being caused to victim, in sentiments such as it did not hurt and "it was care". This pattern of thinking may characterise some of the cognitions outlined in Taylor and Quayle's (2003) explanatory model of Internet sex offenders, the model of problematic Internet use (p. 177).

Creating the ideal seems like a goal setting process for IIOC offenders, in which they the accumulator/collector appeared to seek an understanding of what they liked in terms of fantasy and experiential learning through searching of the Internet and secondary material such as adult pornography. Use of adult pornography has been noted consistently in IIOC offenders (McCarthy, 2010). However, it has not previously been thought of in terms of secondary material used to support collection development and refinement of the nature of the Image desired, this idea is consistent with how secondary material can be used in normative collecting (Thorne & Bruner, 2006). For some this creating the ideal was a conscious and deliberate process linked to pre-existing knowledge of what was desired, for others it was a deductive process involving a puzzling over each accumulating experience in order to find meaning and clarity about what they desired. Lack of offender insight has been noted in prior studies, along with the very deliberate and focused IIOC offender (McCarthy, 2010; Middleton, 2008; Winder et al., 2015). Insight versus limited insight seemed to influence how the IIOC offender went about collecting, the types of images they desired and how they managed their accumulations. The insightful IIOC accumulators appeared more deliberate in searches and methods used to obtain their desired objected, they had personal

preferences of certain images and would pick a choose what they wanted, even from sets, and in managing their accumulation they appeared to have greater awareness of the risks associated with detection. For those less insightful about their ideal image a greater susceptibility to the "storylines" offered by others in the form of set completion was noted. It is unclear what this may reflect but it could be related to the lack of theory of mind within the onlooker.

The function of accumulating IIOC appeared multiple for the offender. Pursuit of novelty, excitement and the chance of finding something better were all important motivators for continuing the hunt for illegal images. It appears that after actual ownership disappointment soon emerged, as the image rarely lived up to imagined experience and/or the novelty and excitement wore off quickly. This dissatisfaction and desire to get away from these unpleasant feelings of disappointment seemed to initiate, often quickly, another cycle of collecting involving the hunt, offence, post-acquisition rituals of masturbation and for some ordering and organising (McIntosh & Schmeichel, 2004). The belief, that the 'grass is greener' or there is something better or more exciting to acquire, seemed to strengthen the desire to continue accumulating IIOC. Experiences of repetitively going through McIntosh and Schmeichel's collecting process supported refinement of the offenders accumulating behaviour, the nature of the IIOC they wanted and how to obtain them. Experiential learning could result in developing expertise and possible connoisseurship, which may be reflected in smaller refined IIOC accumulations.

For some the urge to engage in IIOC accumulating behaviour was driven by what felt like at times uncontrollable compulsions, and obsessive thinking about indecent images of children manifesting in behaviours like list keeping. Disorganised and possibly large accumulations may be associated with these compulsions to acquire new material, whereas those with lists and more cognitive pre-occupation it is highly probable they will have highly organised accumulations of IIOC. Research from normative collecting suggests that disorganised collections were reflective of individuals with hoarding disorders (Nordsletten et al., 2013), and the excessive need for ordering and organising could be associated with the ritualistic collecting of Austistic spectrum disorders, such as Asperger's Syndrome (Murrie et al., 2002; Mahoney, 2009). Sexualised coping was a common strategy used by many of the participants in a bid to escape unpleasant and stressful experiences in the here and now, and sexual dysregulation in IIOC offenders was reported in a review by Babchishin et al. (2015)

and Henshaw et al. (2015). The reported subjective distress may represent evidence of underlying mental health issues, such as hoarding, Asperger's Syndrome, paraphilias or an unacknowledged shame and anxiety associated with their childhood traumas. Prior research has never examined pathological collecting in forensic service users, however a higher prevalence of paraphilias has been noted in recent reviews of IIOC offenders (Babchishin et al., 2015; Henshaw et al., 2015). In effect use of the indecent images of children and for some the associated accumulating behaviour were strengthened through the use of IIOC as a form of self-medication.

In comparing the findings of this study with normative collectors in study one, it is evident that both normative collectors and IIOC accumulators used cognitive strategies to implant themselves emotionally into their acquired images resulting in a symbiotic relationship developing between the collector/IIOC accumulator and their acquired image/s and the image seemingly becomes part of the collector as well as the IIOC offender and eventually the collection/ offender accumulations may become a reflection of self. Cognitive rehearsal and fantasy seems central to the process of implanting oneself in the image and getting to know the places or persons depicted. Study 1 and 2 both suggest that the normative collector and the IIOC accumulator created an emotional connection with the image/s by linking it with their auto-biographical memories. Legal collectors idealised and empathised with the content of the depiction and those involved, whereas IIOC accumulators appear to show no empathy when manipulating the image to meet their specific needs and emotional requirements.

The emotions generated in the process between collector and the collectible seemed to differ between legal (Study 1) and illegal (Study 2) collectors, with the development of love (Fisher, 1997) more probable between the legal collectors and their images, and the removal of shame and anxiety seeming more related to the IIOC offenders engagement with their images. The different emotional strategies between the two groups is reflected in the cognitive strategies used to justify continuing with their gathering and saving. IIOC accumulators tended to dehumanise the children in the images and minimise the harm caused in the production of IIOC, and this resulted in the children being seen as unaffected or enjoying the abuse, which then justified use of the image for sexual gratification and further pursuit of IIOC.

Limitations and Future Research

Whilst this study provide a first attempt at examining Internet sex offenders with IIOC accumulations solely through a collecting lens, there are a number of limitations which should be considered. The sample size is moderate with seven participants, but appropriate for IPA. It was a volunteer sample and may not be representative of all IIOC accumulators. The context and having completed treatment may have influenced what was shared, and in turn the reflections drawn from their experiences. Whilst it was intentional to focus only on male offenders due to potential gender differences noted in normative collectors (Martin, 1999), a next logical step would be to extend this work to female IIOC offenders and increase the ethnic diversity of the samples. No official prison records were accessed in this study to confirm participants self-report or offence history, this may be useful in further studies but was not thought essential in the current study as the aim was to solely understand IIOC offenders' perspective. Finally, collecting behaviour in humans has rarely been consider and further research is required about the nature, function and process of collecting behaviour. Collecting research is essential as it may inform future judicial understanding of what they conceive as aggravating factors of IIOC offenders and may help formulate future thinking about assessment and treatment.

CHAPTER 6: Study Three Exploratory Study Examining IIOC Offenders Engagement with Collecting Behaviours

As stated previously collecting characteristics are suggested to be an important distinguishing variable in regards to indecent images of children (IIOC) offenders, however to date a quantitative analysis which systematically and prospectively applies collecting theory to IIOC offenders has never been undertaken. A survey has been designed to elicit information about the previously identified core collecting elements of nature, function and process in regards to gathering, accumulating and keeping IIOC ('collectibles' and 'collections'). A psychometric component has been added to the research design to investigate the hypothesis that for some the gathering and accumulating behaviour may have a pathological origin, such as hoarding disorder or Asperger's Syndrome.

Introduction

Internet sex offending is often used as an umbrella term to refer to a group of sex offenders who use the Internet to support offending, however it is clear that Internet sex offenders are not homogeneous (Durkin, 1997; Davidson, 2007; Seto, 2013). McGuire and Dowling (2013) simplify cyber-enabled child sex offending into two main types, (a) groomers and (b) IIOC possessors, makers, distributor and advertisers. It is this latter type of Internet sex offender which is the focus of this study, hereby referred to as IIOC offenders.

Sample specificity is clearly a concern when synthesizing pre-existing IIOC research and drawing inferences (Babchishin et al., 2015; Henshaw et al., 2015). Contemporary studies have tried to deconstruct Internet sex offender samples, often identifying contact sex offender groups and comparing them with IIOC offenders (aka Child Pornographers) and/or crossover offenders who have contact and IIOC offences, often called mixed or dual offenders. Other sampling issues in this corpus of IIOC research are small sample sizes, convenience samples of convicted offenders which may be unrepresentative given the large grey figure associated with IIOC offending (Wolak et al., 2013), and over-reliance on index offences to define groups without due consideration of historic offending (reviews Babchishin et al., 2015; Henshaw et al., 2015). IIOC offenders may also have a number of roles such as IIOC possessor, maker, distributer, sharer and/or seller. With active involvement in processes that facilitate or commission the creation or support sharing indecent images of children stipulated

by the judiciary as a marker of deviancy and risk (SODG, 2014). McCarthy (2010) confirmed this hypothesis finding cumulative use of IIOC for sexual gratification, trading and organising was a better predictor of sexual contact with minors than individual IIOC roles and functions.

With the above caveats in mind, recruiting a sample of IIOC offenders may not be straightforward, and it is critical to distinguish IIOC offenders from mixed offenders who have IIOC and a current or historic contact offence. Distinguishing between IIOC offending roles and overall involvement in IIOC offending may also improve sampling precision and later hypothesis testing.

Understandably a priority inferred from previous research is whether non-contact Internet based child sex offenders, such IIOC offenders, differ from contact child sex offenders; and whether engagement in IIOC sex offending represents a pathway to later contact offending (Bourke & Hernandez, 2009; Seto et al., 2011). Consequently, other areas of IIOC offending have been relatively neglected, and after 25 years or more of research "very little is known about the risk factors that may be unique to the CPO [child pornographer only] population. One particular area of growing interest is the relationship between the characteristics of an offender's collection of child pornography and their level of risk" (p. 20). To date there are only three quantitative studies which consider the collecting aspect of IIOC offending (McCarthy, 2010; Long et al., 2013; McManus et al., 2015). There are a handful of qualitative studies (Taylor, 1999; Taylor & Quayle, 2003) and one mixed method study (Sheldon & Howitt, 2007) which use Internet sex offender samples but offer commentary on IIOC offending and collecting.

To date, no satisfactory explanation has been offered to explain this apparent collecting aspect present in some IIOC offending. The literature reviews in chapter one and two, suggest failure to operationalise the collecting concept in particular regard to IIOC offending may be impeding progress. Limited conceptual basis from which to hypothesize about collecting is not just a forensic issue. Nordsletten and Mataix-Cols (2012) review of normative collecting found only 12 sources which were poor to very poor quality. To address the theoretical imprecision in regards to collecting a literature review was undertaken (chapter one) and from this a collecting frame proposed, that is three collecting units termed the collector, collectible and collection, along with three collecting elements termed nature,

function and process. In this quantitative study IIOC offending behaviour will be explored through this collecting frame, with a particular focus on the nature, function and process of the "collectibles" (IIOC and images of child erotica) and "collection" (IIOC accumulation).

Chapter two revealed that considerable effort has gone into objectively characterising the nature of the IIOC offender ('collector') and their images ('collectible'). Research indicates, that IIOC offenders are predominantly white males (Babchishin et al., 2015; Henshaw et al., 2015), typically well-educated and in employment within a wide variety of skilled and unskilled jobs (Seto, Reeves, & Jung, 2010; Aslan & Edelmann, 2014). IIOC offenders tend to be younger than contact offenders, and studies with clearly defined IIOC only offenders report an average age at index offence of late thirties to early forties (McCarthy, 2010, Long et al., 2013, and McManus et al., 2015). Relationship status of IIOC offenders varies across studies with some research suggesting that they are more likely to be married, (Beech, Elliott, Birgden, & Findlater, 2008; Prat & Jonas, 2013), but generally they were considered less likely to be involved in committed relationships and have more relationship problems (Aslan & Edelmann, 2014; Elliott et al., 2009; Webb, Craissati & Keen, 2007; Wood, Babchishin & Flynn, 2012).

The nature of depictions in IIOC have also been given, relatively speaking, considerable attention. Especially regarding classification of image content, the severity and illegality of sexual images of children, as well as providing a system to classify the entire nature of IIOC offenders' accumulations. As noted previously in chapter two, three major IIOC classification systems have been implemented, COPINE (Taylor, Holland & Quayle, 2001), SAP (Sentencing Guidelines Council, 2007) and ABC Scale (SODG, 2014). Forensic research into the nature of IIOC offenders' collections has often focused on the total number of images (size) accumulated and specific types of images in sub-collections (Beech, et al., 2008; Taylor & Quayle, 2003; McCarthy, 2010). Currently the findings are inconclusive in regards size of IIOC accumulations. McManus et al. (2015) and Long et al. (2013) using police arrest data found that IIOC only offenders had larger collections, whereas McCarthy (2010) using archival treatment data found that mixed offenders had three times as many indecent images as IIOC offenders only. Across these three studies the measure of central tendency varied, Long et al. (2013) used a median and McCarthy (2010) and McManus et al. (2015) used a mean to calculate the average number of indecent images for IIOC offenders and mixed offenders. McCarthy (2010) reported that on average IIOC offenders only had 782

(SD=1308), McManus et al. (2015) found 10,807 (SD= 32,719) and Long et al. (2013) found IIOC only had 24,112 (SD= 48,058). With the exception of McCarthy's study, there is clearly considerable sample variability in regards to the total number of images, with some individuals having vast quantities and others having only a few IIOC. This variability, particularly the impact of outliers, does not appear to have been corrected when calculating measures of central tendency and this may account for the different findings across studies. Using MacPherson's (2012) guidance on quantifying the size of IIOC collections it would appear that the IIOC samples in McManus et al. and Long et al. had very substantial collections, whereas McCarthy's sample were in the moderate-low range in terms of average collection size.

McManus et al. (2015) and Long et al. (2013) both found that IIOC only offenders had greater variability in their collections having images across SAP levels 1-4, and a high proportion of their images were in the SAP level 1 and often involved images of children alone. SAP Level 5 images involving bestiality and sadism were rarely found in offender possession, and did not distinguish between child Internet sex offending groups (Carr & Hilton, 2009; Long et al., 2013; McManus et al., 2015). McPherson theorised that an offender with a collection of several hundred thousand images may be considered more deviant than an offender with a collection of several dozen images, especially if these images are the same level on the SAP scale. Glasgow (2010) contends that rather than size of accumulations or sub-accumulations, deviancy and risk may be better explained through considering the offenders' overall involvement with IIOC behaviours and processes. Collecting theory would also caution against simple linear interpretations between size and deviancy, as small, specialist and honed collections may signify expertise and connoisseurship developed over years of looking, acquiring, trading, discarding and refining ones collecting interest (Belk, 1985; Danet & Katriel, 1989; Strone, 2010).

For many child sex offenders, IIOC or images of child erotica are used for sexual stimulation and/or to groom minors for online and offline contact (Webster, Davidson, Bifulco, Gottschalk, Caretti, & Pham 2012). However non-sexual functions have been posited. Taylor (1999) described "the collector syndrome" which involves the compulsive acquisition of IIOC material for its own sake, rather than the careful selection of images based on inappropriate sexual arousal. Similarly, Quayle and Taylor (2002) found that collecting a series was often as important to an individual as sexual arousal to child images, and for some IIOC offenders

pleasure was also gained from categorizing image accumulations (Carr, 2003; Taylor & Quayle 2003; Sheldon & Howitt 2007). Aiken, Moran and Berry (2011) mention image rarity and speculate how this creates a hierarchical system which may empower IIOC gathering, accumulating and production (p. 10). Typologies of Internet sex offenders, such as Krone (2004) and Lanning (1992), also highlight a group of IIOC offenders who may only be interested in IIOC for commercial gain. Other motivators and maintaining factors for IIOC offending may be psychosocial benefits which alleviate some of the relationship and intimacy deficits associated with IIOC offenders, such as interpersonal difficulties, poor self-esteem, difficulty establishing social and emotional connection with other people and sexual regulation issues (review Henshaw et al., 2015). These personal characteristics may also explain why IIOC offenders retreat into a world of online IIOC offending, as it provides an opportunity for social inclusion, sexual coping to emotionally regulate, exploration of sexual identity and self enhancement (Middleton, Elliot, Manville-Norden & Beech, 2006; Taylor & Quayle, 2003; Quayle, Vaughan & Taylor, 2006).

O'Donnell and Milner (2007) and Sheldon and Howitt (2007), postulate that some Internet sexual offenders with very large collections may have pathological collecting issues, i.e. hoarding disorder. Quayle et al. (2015) writes that involvement in non-contact Internet sex offences may also be due to vulnerability through learning needs, and the ritualistic collecting associated with Asperger's Syndrome may bring the sufferer into contact with the law for IIOC offences (Mahoney, 2009; Murrie et al., 2002). Other studies have found IIOC offenders experience less mental health problems than other sex offender groups, but an evolving trend is that they have higher contact with mental health services (Bickard, Renaud & Camp, 2015). It is unclear what may underpin this finding, and maybe there are IIOC specific mental health issues not typically assessed in child sex offenders, such as collecting related disorders like hoarding, Asperger's Syndrome or compulsivity issues linked to online sexual behaviour and Internet use (Delmonico & Griffin, 2011; Taylor & Quayle, 2003).

Taylor and Quayle's (2003) Problematic Use of Internet (PUI) model posit excessive Internet use may motivate and maintain IIOC offending, and lead to escalations in online child sex offending. There is however no consistent support for the hypothesis of a linear relationship between excessive Internet usage and IIOC offending and risk escalation. McCarthy (2010) found no difference between IIOC only offenders and mixed offenders in the amount of time spent online per week, whereas Long et al. (2013) found that IIOC offenders spent

significantly more time online than mixed offenders across the lifespan. Carr (2006) reported that Internet sex offenders spent on average 30 hours per week online. McCarthy (2010) found that IIOC offenders spent on average 10 hours per week viewing child pornography. Taylor and Quayle's (2003) Problematic Use of Internet (PUI) model also suggests that the Internet may help some IIOC offenders overcome social exclusion, emotional loneliness and sexual dysregulation, with cybersex environments facilitating social networking and opportunity to access sexual outlets without requiring direct contact with others. Social contact with like-minded others and/or engagement in paedophilic social communities built around IIOC, perhaps encourage knowledge building, increase social status, advance technical and search skills, validation of offender's behaviour as normal and non-harmful, as well as enabling IIOC offending behaviour linked to distribution, production, possession, trading and selling and possibly facilitating contact with potential victims (Carr et al., 2004; Calder, 2004; CEOP, 2012; Ford & Patterson, 1998; McGuire & Dowling, 2013; Wolak et al., 2013).

In summary, for some the primary and may be sole function of IIOC offending is sexual stimulation. For others use of IIOC for sexual purposes may be secondary and for some the IIOC may serve no sexual purpose at all. IIOC and IIOC accumulations most probably serve multiple functions, including sexual, economic, leisure and psychosocial. The Internet, social networking and paedophilic social communities possibly offer opportunities to gather, share, show, trade and accumulate IIOC, and may also facilitate social and emotional connection with accepting others. Internet usage does not appear to be particularly discriminating between IIOC offenders and other sex offenders, and level of involvement in social networking with like-minded others varies between IIOC offenders.

Qualitative and discursive studies suggest IIOC offenders may be initiated via two main pathways that is accidental vs deliberate (Taylor & Quayle, 2003; Sheldon & Howitt, 2007; Winder et al., 2015; Winder & Gough, 2010). Accidental or incidental initiation into accessing IIOC seemingly occurs as a consequence of online behaviour, such as visiting cybersex sites, chat rooms and file sharing. Other IIOC offenders report deliberately searching for IIOC having already self-identified a sexual interest in children and deliberately go online to satiate this need. Personal narratives of IIOC offenders suggest their initial interest in IIOC evolves and they report searching, gathering and accumulating IIOC from multiple sources and using multiple methods, such as cyber-sex sites, online chat rooms,

soliciting self-generated images, child specific websites, nudist websites and peer-to-peer file sharing (Taylor & Quayle, 2003; Sheldon & Howitt, 2007). A multi-modal approach to IIOC gathering, accumulating and networking has been replicated in large scale studies using more objective ICT based crime detection methods, such as Round-Up (Wolak et al., 2013; Bissias, Levine, Liberatore, Lynn, Moore, Wallach & Wolak, 2016). Some studies found that IIOC only offenders were more likely to pay for IIOC and less likely to destroy these IIOC when in their possession (McManus et al., 2015; Long et al., 2013). Paying for and not destroying IIOC supports Lanning's (2010) earlier assertion of commitment and "permanency" of IIOC collections, i.e. "it is a cherished possession and his [her] life's work" (p. 92).

Apart from the sources and methods used to offend, how IIOC offenders go about gathering and accumulating objects of interest, as well as the processes involved post-acquisition are not well understood. For the first time this study will explore the IIOC offence cycle through the lens of collecting theory, by prospectively applying McIntosh and Schmeichel (2004) model of collecting process. A parsimonious account of McIntosh and Schmeichel's (2004) model is currently suggested as it creates a simple parallel between collecting and offending processes to produce a simple collecting-offending cycle. Pre-offence behaviour is equivalent to the collecting process of 'preparation and the hunt' which focuses on thinking about, getting, finding out about and searching for indecent images of children. The offence **behaviour** relates to acquisition through finding, downloading and/or saving indecent images of children or making indecent images. Post offence behaviour relates to post-acquisition collecting processes, that is what the offender does with the indecent images once the individual has it in their possession, such as using the image for sexual gratification, organising and cataloguing, sharing with others and making money from the indecent images. It is hoped applying this parsimonious version of McIntosh and Schmeichel's collecting model may provide a starting point for systematically examining the relationship, if any, between collecting behaviour and IIOC offending.

It is clear from research discussed in chapter two that IIOC offending is a growing problem and also that the nature of the images being produced are becoming more extreme and deviant and that this pattern may continue to escalate with the ease of the Internet (Gillespie, 2008; Seto et al., 2012; Wolak et al., 2013). Some research has speculated that IIOC offending may have a collecting component, (Lanning, 2010; Shelton & Howitt, 2007), but

this has received little attention (Prat & Jonas, 2013; Henshaw et al., 2015). To date there is only a few studies which have considered collecting behaviours in IIOC offenders, (McCarthy, 2010; Long et al., 2013; McManus et al., 2015). In my opinion theoretical imprecision in regards to collecting has impeded progress both in understanding collecting and IIOC offending. A thorough review of the collecting literature revealed a collecting frame, that is, three collecting units termed the collector, collectible and collection, along with three collecting elements termed nature, function and process. This new collecting frame was applied to the IIOC offending literature in chapter two to test its applicability and identify gaps in our current knowledge about IIOC offenders. The new collecting frame appeared to have utility and also revealed that considerable effort has previously gone into understanding the psychology of the IIOC offender ('collectors'), however less attention has been paid to the collectibles and collections.

This exploratory study aims to investigate the hypothesis that there may be a collecting aspect to IIOC offending. The first objective is to describe any potential association between collecting and IIOC offending, with a particular focus on the nature, function and process of the indecent images of children ('collectibles') and IIOC accumulations ('collections'). The second objective is to explore whether a collecting group can be identified amongst IIOC offenders, using the parsimonious version of McIntosh and Schmeichel (2004) model of collecting behaviour. If a collecting group can be identified, then their IIOC offending behaviour will be compared with the non-collecting group of IIOC offenders to identify any differences in regards to those IIOC offenders who report no interest in collecting behaviours.

Methods

A survey and psychometric study was conducted to investigate the IIOC gathering, accumulating and management behaviour of IIOC offenders currently incarcerated at a large British sex offender prison.

Participants.

Survey packs were distributed to a sample of 560 male sex offenders in the prison. A 155 prisoners responded, and 33 (21%) self-reported downloading and saving indecent images of children. The IIOC sample had a mean age of 48 years (SD=13.6), ranging from 26-74 years of age. IIOC offenders reported initiation to gathering indecent images of children at 13-60 years, with an average initiation age being 37 years (SD=14.28).

All participants were Caucasian. The majority being British Nationals (91%, n=30) and the three other participants were Irish, Lithuanian and white Kenyan. Over half the sample (55%) reported being single, 15% (n=5) reported being married, 24% (n=8) were divorced and 6% (n=2) were widowed. Over half (55%) of IIOC offenders had at least one child. Three participants reported having no formal qualifications, four had obtained a university level qualification and the majority (78%) had obtained high school or apprenticeship qualifications. Using the Office of National Statistics: Standard Occupational Classifications (ONS) to categorise prior employment. One participant was doctor (a professional occupation Group 2), and seven worked as associate professionals and technical occupations (Group 3), such as, police officers and technicians. Five participants worked as administers (Group 4), and the majority of the sample, (n=15) worked in Group 5-9 occupations which includes jobs as drivers, cleaners and care-workers. Four participants were not in paid employment prior to arrest, reporting being disabled, unemployed, a volunteer and a student. One person failed to provide information.

Measures.

If participants self-identified as having saved and downloaded IIOC they were then asked to complete a series of demographic questions and then were asked to complete the collecting – offending survey and three psychometric measures.

Collecting-Offending Survey

In the absence of a standardized tool for assessing collecting behaviour or IIOC accumulating behaviour, a collecting-offending survey was subsequently developed. This consisted of 24 main questions, grouped into three core areas that is demographic information, sample classification questions and collecting specific questions structured around the core collecting units of nature, function and process. The collecting questions were sequenced in such a manner that the more factual questions came first as they would be easily recalled and perhaps increase participant engagement. As the participant progressed through the survey the questions relating to the nature, function and processes of IIOC accumulating became more personal and cognitively challenging.

Saving Inventory Revised (SI-R - Frost et al., 2004) is a 23-item questionnaire which assesses compulsive hoarding, with a total score ranging from 0-92 and a cut-off score of 41 providing the best relationship between sensitivity and specificity (Tolin, Meunier, Frost, & Steketee, 2011). A slight modification was made to the SI-R whereby participants' rated the degree to which they are bothered or distressed by hoarding symptoms before coming to prison (rather than during the past month) on a 5-point scale. The SI-R comprises of a three factor structure comprising Acquisition (7 items), Clutter (9 items) and Difficulty Discarding (7 items), and has been validated in nonclinical (Melli, Chiorri, Smurra, & Frost, 2013; Mohammadzadeh, 2009) and clinical (Frost et al., 2004) populations. The internal consistency has been demonstrated as good, with Cronbach's Alpha ranging from .84-.93 (Fontenelle et al., 2010; Frost, Rosenfield, Steketee, & Tolin, 2013) and the test-retest reliability ranges from .86-.94 in previous studies (Fontenelle et al., 2010; Frost et al., 2004). The internal consistency (Cronbach's Alpha) in the current study was very good, SI-R total scale .96, Clutter .92, Acquisition .89 and Discarding .93. Convergent and discriminative validity has been established in past studies (Fontenelle et al., 2010).

Saving Cognition Inventory (SCI- Steketee et al., 2003) is a 24-item scale reflecting attachments and personal beliefs related to possessions. The SCI total score ranges 24-168. A slight adjustment to the SCI was introduced to reflect that the participants were now in prison therefore the questions related to how they related to objects before coming to prison rather than asking about their experience in during the past month. Ratings were done on a Likerttype scale range from 1 (not at all) to 7 (very much). The SCI comprises four analytically derived subscales that assess Emotional Attachment to objects (10 items), Memory (5 items), Control (3 items) and Responsibility (6 items). Emotional attachments include the emotional comfort provided by possessions, the tendency to see possessions as part of one's identity, and attaching extreme value to possessions. Beliefs about memory include concerns about forgetting or losing important information if objects are discarded. Beliefs about control reflect the fear of having other people touch, move, or in any way interact with their possessions. Beliefs about responsibility involved the concern about wasting potentially useful possessions. The SCI has high internal consistency, test-retest reliability, highly correlated with hoarding symptoms and discriminates hoarding patients from those with OCD and community controls (Steketee et al., 2003). The internal consistency (Cronbach's Alpha) was acceptable to very good for this sample, SCI total .96, Emotional Attachment .90, Control .75, Responsibility .85 and Memory .82.

Autism Spectrum Quotient for Adults - Short Version (AQ-10)

The AQ-10 (Allison, Auyeung & Baron-Cohen, 2012) was developed from the original 50-item version as a screening tool for clinicians. Responses are on a four-point scale: definitely disagree, slightly disagree, slightly agree and definitely agree. Responses indicating autistic traits score 1, while other responses score zero, and certain questions are reverse scored to prevent response sets. The total score ranges from 0-10, a high score corresponds to more autistic traits and a clinical cut-off score of 6 was established from the large scale development and validation study providing the best relationship between sensitivity (0.88) and specificity (.91), (Allison et al., 2012). Internal consistency for this current forensic sample was .612 which is below the accepted level of .7 and would suggest caution when interpreting this instrument.

Procedure.

The present study was approved by the University's Ethics Panel and the Ministry of Justice. Participants were recruited through distribution of the survey to the entire HMPS population in May 2013, those with relevant behaviour were invited to self-select and complete the survey. After providing informed consent participants completed demographic and background information, SI-R, SCI and AQ10 measures, respectively. Confidentiality was ensured as information was stored on a password-protected computer, and each participant generated a unique identifier which they could use to withdraw their data. As there was a probability of individuals with learning disorders being asked to take part in the survey they could ask for help and guidance from the researcher in terms of the researcher being present when the survey was being undertaken in order to offer guidance, all prisoners received an information sheet before deciding to take part in the survey. All prisoners were given the option of completing the questionnaires alone in their cells or under supervision in an appointed room within the prison. Completed surveys were either collected in person or returned to the researcher via the prison psychology department. All participants received a debrief letter after they had taken part in the survey.

Statistical analysis.

Statistical analyses were conducted with the statistical program SPSS version 22. Descriptive statistics, frequencies and crosstabulations were used to analysis the survey data to examine the collecting characteristics of IIOC offenders. Cronbach's Alpha was conducted to check

the internal inconsistency of the AQ-10, SIR and SCI with the current IIOC offender sample. Tests of differences were undertaken to examine differences between the Collecting and Non-Collecting groups, using Chi-Square, Fishers Exact Test or Mann Whitney U. (For full review of the methodology, see chapter three)

Results

This exploratory study aims to investigate the hypothesis that there may be a collecting aspect to IIOC offending. The first objective is to describe any potential association between collecting and IIOC offending (Sample All), with a particular focus on the nature, function and process of the indecent images of children ('collectibles') and IIOC accumulations ('collections'). The second objective is to explore whether a collecting group can be identified amongst the IIOC offenders, using the parsimonious version of McIntosh and Schmeichel's (2004) model of collecting behaviour outlined in chapter two. If a collecting group can be identified, then IIOC offending behaviour of the Collecting and Non-Collecting group will be compared.

Hunt & Acquisition n=3 **Hunt & Post**acquisition n=1 **Collecting Group** n=18 **Acquisition & Post** Acquisition n=4 Total IIOC **Hunting, Acquisition** Sample & Post-Acquisition n=10 n=33 No Interest in collecting processes Non-Collecting n=13 Group n=15 Interest one aspect **Hunt Only** n=2 **Acquisition Only**

Figure 3: Sample Classification of Collecting and Non-Collecting Groups

Using the parsimonious version of McIntosh and Schmeichel's (2004) model of collecting process, the IIOC sample of 33 prisoners were classified into a Collecting or Non-Collecting

group (Figure 3). Collecting (54.5%) and Non-collecting (45.5%) groups were identified using self-reported ratings of importance in regards to the theoretically posited collecting process behaviours, i.e. hunting, acquiring and post-acquisition. Thirteen prisoners (39%) reported no interest in any part of the collecting process, and two prisoners (6%) reported specialist interest in behaviours associated with only one aspect of the collecting process, that is hunting only or post-acquisition behaviour only. These individuals were subsequently classified in the Non-Collecting group (n=15). Eight (24%) prisoners reported significant importance of behaviours associated with two aspects of the collecting process, and ten prisoners (30%) rated all three aspects of the collecting process as highly important. Those who rated two or three aspects of the collecting process as very-extremely important became the Collecting Group (n=18).

Comparison Collecting and Non-Collecting Group

The mean age for the Non-Collecting group was 49 years (SD=11.97), with a range of 32-70 years. The Collecting group had a mean age of 46 years (SD=14.7), with an age range of 26-74 years.

 Table 9: Demographics for Collecting and Non-Collecting IIOC Offenders

		Non- Collecting (n=15)	Collecting (n=18)	Chi-Square	
Current Relation	ship Status	%	%		
Married		7	22	V2 (2 N 22) 52	
Widowed		7	6	$X^{2}(3, N=33) = .52,$	
Divorced		33	17	p=.52 (ns)	
Single		53	55		
Qualifications					
None		-	17	$X^{2}(2, N=33) = .275,$	
High school/appre	High school/apprenticeship		72	p=.25 (ns)	
University degree		13	11		
ONS-	Employment				
Standard#	Senior Management	-	5.5		
Group 1 & 2	Professional	27	5.5		
	- Associate professional	20	5.5		
Group 3 & 4	Administrative	20	11	$X^{2}(2, N=33) = .90,$	
-	Skilled trade		5.5	p=.34 (ns)	
Group 5-9	Caring or Leisure	_	3.3 17	P=.5 (115)	
-	Sales/ customer service	13	17		
	Elementary/menial	7	11		
Other	Unemployed/unpaid work	13	22		

Office of National Statistics: Standard Occupational Classification (ONS)

Table 9 shows that being single was the most prevalent relationship status for the Non-Collecting (53%) and Collecting (55%) groups, and those in the Collecting group (22%) were

more likely to report being currently married. There was no statistically significant difference in the relationships status of Collecting and Non-Collecting group members. Both groups were well educated and were not statistically different, with 100% of Non-Collecting and 83% of Collecting group members holding at least a high school qualification. The Non-Collecting group were more likely to report Group 1-4 ONS occupations, such as doctor, police officer, engineer and electronics technician, whereas the Collecting group were more likely to be in Group 5-9 occupations involving skilled trades, care and leisure jobs, such as hotel workers, lathe operator and care worker. The Collecting group (22%) were also more likely than those in the Non-Collecting group to be unemployed or in unpaid work, such as volunteering and student. There was no statistically significant difference in occupational status between the two groups.

Nature of Collections

On average IIOC offenders had 1,691 (SD=5,121) sexual images of children, however, there was one outlier in the group who had 27,620 images. Removal of this participant from total images analysis reduced the average number of sexual images possessed by this IIOC sample to 827 images (SD=1,783). This IIOC sample evidenced a diverse interest in images of children, possessing on average 5 out of 10 (SD=2.99) levels on the COPINE scale and two out of five SAP levels (SD=1.79).

Table 10: Nature of the IIOC and Accumulations

IMAGE CL	ASSIFICATION	Sample All	Non- Collecting	Collecting	
COPINE Scale*	SAP Scale *	N=33	n=15	n=18	Test of Difference
Scarc		Mean (SD)	Mean (SD)	Mean (SD)	
1. Indicative		62 (161)	95 (228)	36 (65)	
2. Nudist		301 (691)	65 (130)	520 (912)	$X^{2}(9, N=29) = .2.98,$
3. Erotica		25 (90.06)	-	52 (126)	p=.52 (ns)
4. Posing		223 (772)	40 (82.66)	394 (159)	
5. Erotic Posing		132 (389)	34 (84.64)	222 (528)	
6. Explicit Erotic		68 (139)	34 (84.51)	100 (173)	
Posing					
	1. Nudity & erotic posing	200 (508)	68 (169)	322 (676)	X ² (10, N=27) =.22, p=.25 (ns)
7. Explicit Sexual Activity	II. Sexual Activity – children only	53 (138)	30 (82.57)	82 (182)	X ² (11, N=29) =.13, p=.29 (ns)
8. Assault	III. Non-penetrative sexual activity adult and child	13 (24.91)	4 (13.78)	22 (30.57)	X ² (9, N=28) =.74, p=.59 (ns)
9. Gross Assault	IV. Penetrative sexual activity adult and child	22 (48.84)	6 (13.08)	39 (67.44)	X ² (10, N=29) =.12, p=.3.2 (ns)

10. Sadism or Bestiality	V. Sadism and Bestiality	9 (29.32)	1 (2.50)	18 (41.81)	X ² (6, N=30) =.86, p=.19 (ns)
Indecent Images Ca	tegories ABC Scale *	Mean (SD)	Mean (SD)	Mean (SD)	
A. Penetrative sexual activity and/or images involving sexual activity with an animal or sadism		25 (73.7)	7 (12.96)	57 (102)	X ² (14, N=30) =17.28, p=.24 (ns)
sexual activity		66 (157)	34 (84.50)	104 (208)	X ² (15, N=29) =15.94, p=.39 (ns)
	t images not falling ies A or B - Defined evel	200 (508)	68 (169)	322 (676)	X ² (18, N=27) =21.66, p=.25 (ns)
Average Number COPINE Image	V .	5 (2.99)	4 (2.34)	7 (2.89)	X ² (9, N=28) =11.11, p=.27 (ns)
SAP Images		2.4 (1.79)	1.6 (1.40)	3 (1.80)	X ² (5, N=31) =11.83, p=.037
Average Size of A	Accumulation *	827 (SD 1783)	309 (SD 456)	1485 (SD 2451)	U=154, p.173 (ns)

^{*}outlier removed

It is evident from Table 10, that the Collecting group had on average larger collections of sexual images of children (M=1485, SD=2451) in comparison to the Non-Collecting group (M=309, SD=456), and the Mann Whitney U analysis revealed this difference was not significant. Those in the Collecting group showed a more diverse interest in the different image types as classified by COPINE and SAP scales. The diversity of SAP images held by the Collecting Group were statistically different from the range of SAP images held by the Non-Collecting group. For Collecting group members the most popular types of SAP images were SAP Level 1, which involve deliberately posed images of nude or partially nude children (M=223, SD=772) and sexualised posing of children (M=132, SD=389). The Collecting group were also more likely to possess the most serious and deviant images rated as Category A and B images in the new ABC scale, and had on average 57 images (SD=102) depicting sadism, bestiality and penetrative sexual activity with a child, in comparison to a mean of 7 (SD=12.96) Category A images for the Non-Collecting group. Chi-square analysis revealed no statistically significant differences between the Collecting and Non-Collecting groups in regards to the number of specific images in individual SAP, COPINE and ABC categories.

Process of Collecting

The collecting process is conceptualised by combining the parsimonious account of McIntosh and Schmeichel's (2004) model of collecting behaviour with a three stage offence cycle.

Pre-Offence Behaviour ("Preparation and Hunting")

It evident from Table 11 that only one Non-Collecting group member rated hunting behaviours as important to them. For the Collecting group the specific preparatory and hunting behaviours of thinking about and searching for indecent images were rated as most important.

Table 11: Pre-Offence - The Hunt for Indecent Image

Variables	Sample All N=33	Non-Collecting N=15	Collecting N=18
Hunting Behaviours rated as very-extremely important:-	%	%	%
 Thinking about getting indecent images 	57	7	50
 Finding out about the desired indecent images 	39	-	39
 Searching for indecent images 	57	7	50
Initiation Point	%	%	%
 From Adult Pornography sites 	29	29	29
 Social Networking & Friends 	26	43	12
 Deliberate web indecent images 	42	21	59
Other	3	7	-
Median hours spent searching per day	1-2hrs	Under 1 hr	1-2hrs
Mean (SD) age started downloading indecent images	37yrs (14.28)	34yrs (15.02)	41yrs (12.81)

Deliberating searching for indecent images of children was the primary method of initiation (42%) for this IIOC sample, with other popular initiation methods being spring-boarding from adult pornography sites (29%) and social networking with like-minded others either online or personally (26%). Non-Collecting group members started using IIOC at a younger age, with a mean of 37yrs (SD 15.02) vs 41yrs (12.81) for the Collecting group, but this difference was not statistically significant, U=89, p=2.46(ns). Non-Collecting group members reported accidental/incidental initiation into viewing IIOC through friends and social networking, whereas the Collecting group members were more likely to self-initiate through direct web searching for indecent images of children. Again this between group difference in initiation methods was not statistically significant, X^2 (3, N=31) = 6.65, p=.084(ns). Collecting group members spent on average twice the amount of time per day looking for indecent images than Non-Collecting members, and this difference was statistically significant using chi-square, X^2 (3, N=32) =8.37, p=.039 (ns).

Offence Behaviour (Acquisition Process)

Behaviours associated with the acquisition aspect of the collecting process were used to define the Collecting and Non-Collecting groups. It is evident from Table 12 that the Non-Collecting group did not highly value the process of possessing and making indecent images. For the Collecting group 83% highly valued acquiring new images and 56% valued

possession of indecent images. Making images was important for only two offenders (11%) in this sample.

Table 12: Offence Behaviour- Acquisition IIOC

	Sample All N=33	Non- Collecting N=15	Collecting N=18
Acquisition Behaviours rated as very-extremely		%	%
important:-			
 Acquiring indecent images 		-	83
 Keeping and saving 		-	56
 Making the indecent images 		-	11
Type of Child Sexual Offender	%	%	%
 Mixed Offenders (Contact and IIOC) 	79	73	83
IIOC Only	21	27	17
IIOC Offending Involvement	%	%	%
Possession Only	73.3	92	59
 Possession and Distribution (Shared) 	23.3	8	35
 Possession and Distribution (Sold) 	-	-	-
Distribution Only	-	-	-
Production Only	-	-	-
 Production and Distribution 	-	-	-
 Possession, Produced and Distribution 	3.3	-	6

Of the 33 prisoners who reported downloading and saving indecent images of children, 21% report IIOC only offences and 79% could be considered mixed offenders as they reported having contact offences as well as IIOC offences. 83% of prisoners in the Collecting group were mixed offenders in comparison to 73% in the Non-Collecting group, and Fisher's Exact Test result was not significant p=.674 (ns). Those in the Non-Collecting group (92%) were more likely to report less involvement with IIOC offending, typically possession only, whereas the Collecting group were more likely to be actively involved in a range of IIOC offending behaviours, such as possession, distribution and production. Level of active involvement in IIOC offending did not differentiate between the Collecting and Non-Collecting groups when this difference was tested statistically using chi-square, X² (2, N=30) =4.26, p=.117 (ns).

Table 13 shows that the most popular places that these IIOC offenders obtained images were specialised websites offering access to IIOCs (50%) and clicking on pop-ups from adult pornography websites (41%). About a third of the total sample obtained indecent images from Internet chat rooms (38%), naturist sites (34%), swapping with friends/contacts (31%) and 31% reported taking pictures themselves which is commensurate to producing indecent images.

Table 13: Sources Used to Acquire Indecent Images of Children

	Sample All N=33	Non- Collecting N=15	Collecting N=18
Images obtained from Pop-ups Adult pornography websites Child pornography websites Swapping friend or Internet contacts Internet Bulletin/Message boards Internet News Groups Internet chat rooms Naturist websites Websites for children Family photos Video-conferencing (CuCMe) Magazines/catalogues Face-to-face contact Taking pictures myself Other e.g. grabbing video, unsolicited email	% 41 50 31 12.5 12.5 12.5 38 34 19 21 6 3 6 31 3	% 33 13 13 13 13 7 40 27 13 20 7 - 20 7	9% 47 82 47 12 18 35 41 24 24 6 6 12 41
Average number of sources used	Mean (SD) 3 (2.02)	Mean (SD) 2 (1.64)	Mean (SD) 4 (2.0)

The modus operandi for offending was different for Non-Collecting and Collecting group members. Non-Collecting offenders preferred to obtain indecent images from Internet chat rooms (40%), pop-ups on adult pornography sites (33%), Naturist sites (27%), whereas those in the Collecting group preferred online sources that permitted direct access to images of children, such as child pornography websites (82%), swapping with like-minded friends and Internet contacts (47%) as well as pop-ups from adult pornography sites (47%) and Naturist sites (41%). Both groups used personal family photos or ones taken from the Internet, however those in the Collecting group were twice as likely to take pictures of children themselves, which may reflective greater interest in production. Those in the Collecting group used on average twice (M=4, SD=2) as many sources to obtain IIOCs as those in the Non-Collecting group (M=2, SD, 1.64), but this difference was not statistically significant X² (8, N=32) =11.64, p=.17 (ns).

Post Offence behaviour (Post-Acquisition)

Post offence relates to what the offender may do with the indecent images once they have them in their possession, and includes using them for sexual gratification, organising and cataloguing, sharing with others and making money from the indecent images.

Table 14: Post Offence Behaviours (Post-Acquisition)

Variable	Non- Collecting N=15	Collecting N=18	Sample All N=33
Aspects of Post-Acquisition Process rated as very-	%	%	%
extremely important:-			
 Using the indecent images for sexual gratification 	7	73	42.5
Organising the indecent images	7	28	18.2
Showing pictures to others	-	6	3
Making money	-	-	-
Sharing pictures	%	%	%
Shared with chosen few	7	6	6.5
 Shared with those that shared with me 	20	24	22
 Shared freely with those with similar interest 	-	11	6.5
 Shared with anyone who asked 	-	6	3
Only used indecent images for personal use	73	53	63
A varage number of days sport organising	Mean (SD)	Mean (SD)	Mean (SD)
Average number of days spent organising	0.67 (1.54)	2 (2.33)	1.47 (2.11)

It evident from Table 14 that using indecent images for sexual gratification was much more important to the Collecting group (73%) than the Non-Collecting group (7%), and this difference was statistically significant, X^2 (6, N=33) =18.66, p=.005. Organising images was also more important to those in the Collecting group (28%) in comparison to only 7% of the Non-Collecting group, and those in the Collecting group spent on average more than twice the amount of time (2days) organising their collections of indecent images compared to the Non-Collecting group (0.67 days). These differences in importance of organising IIOC were not statistically significant, X^2 (7, N=32) =8.05, p=.328 (ns).

Showing pictures to others and making pictures were not particularly important for either group. Sharing their indecent images was also not a prevalent behaviour reported by this sample of IIOC offenders, with 63% indicating that they did not share. The majority of the Non-Collecting group (73%) and Collecting group (53%) reported not sharing images with others. When sharing was reported in either group it seemed to be a mutual process between specially selected others (6%) or with others who shared (distributed) images with them (22%). Only those in the Collecting group shared in a manner which might be considered high volume, that is 17% in the Collecting group distributed images freely with anyone who was interested.

Function of Collecting Indecent Images

Gathering indecent images of children could serve a number of functions to the individual, such as reflecting pathological problems associated with collecting, social, cognitive and/or emotional needs as well as collecting specific needs.

Collecting and Mental Disorder

Pathological collecting (hoarding) and collecting behaviour associated with developmental disorders, such as Asperger's Syndrome, have been suggested as a possible explanation as to why some IIOC offenders have extremely large collections of indecent images or exhibit ritualistic collecting behaviours.

Table 15: Collecting and Mental disorder: Hoarding, Asperger's Syndrome, Anxiety & Depression

Variable	Sample All N=33	Non- Collecting N=15	Collecting N=18
Cross Diagnostic Cut-Off Mental Disorder	%	%	%
Hoarder Disorder (SI-R >41)	12.5	-	23.5
• Asperger Only (AQ10>6)	15.6	7.1	22.2
Mean Scores SI-R, SI-R Subscales & AQ10	Mean (SD)	Mean (SD)	Mean (SD)
Total score SI-R	19 (16.65)	15 (11.25)	22 (20.12)
SI-R Clutter	5 (5.77)	3 (3.29)	6 (7.06)
SI-R Difficulty Discarding	8 (6.31)	7 (5.39)	9 (7.03)
SI-R Excessive Acquisition	7 (5.86)	5 (4.17)	8 (6.94)
Asperger Screening (AQ-10) Mean Score (SD)	3.41(2.14)	3 (1.85)	4 (2.27)
Prior Diagnosis Depression and Anxiety	%	%	%
Anxiety only	-	-	-
Depression only	15	20	11
Anxiety & Depression	12	13	11
No diagnoses of anxiety or depression	73	67	78

Table 15 shows that 12.5% (n=4) Collecting group members crossed the diagnostic cut-off score (>41) for hoarding disorder, but the Fisher Exact Test was not significant, p=1.04 (ns). The Collecting group scored higher on the SI-R and on all three hoarding domains in comparison to the Non-Collecting group, but these differences were minimum and not worthy of further statistical analysis. The mean AQ10 scores would suggest that neither group had high levels of potential Asperger's Syndrome. Those individuals who crossed the diagnostic cut-off for Asperger's Syndrome were mostly in the Collecting group, with the exception of one Non-Collecting group member who reported a specialist interest in post-acquisition behaviours, in particular using images for sexual gratification, organising and cataloguing. Fisher Exact Test indicated that there was no statistically significant difference in levels of Asperger's syndrome between the Collecting and Non-Collecting groups, p=1.04, (ns) FET.

Anxiety and depression were relatively uncommon in this IIOC sample prior to imprisonment, with only 15% reporting a diagnosis of depression and 12% reporting prior diagnosis of comorbid anxiety and depression. However almost half of the participants

reported subjective feelings associated with anxiety and depression prior to prison, i.e. 55% reported feelings of uneasiness, worry and dread, and 46% reported feelings of sadness, hopelessness and helplessness. Non-Collecting group members reported high rates of diagnosed depression (20% vs 11%), whereas those in the Collecting group reported more subjective feelings associated with anxiety and depression prior to imprisonment. There was no statistically significant differences in the level of anxiety and depression reported by Collecting and Non-Collecting group members, X² (2, N=33) =5.99, p=.741 (ns).

Image-Specific Motivators

Image-specific motivators relate to those aspects of the indecent image(s) that the individual may see as personally important in driving their desire to collect. The image-specific motivators may not be mutually exclusive, so more than one may be involved in motivating an offenders collecting behaviour.

Table 16: Images-Specific Motivators to Acquire Indecent Images of Children

Variable	Non- Collecting N=15	Collecting N=18
Image-specific Factors rated as very to extremely important	%	%
Complete sets or series of images	-	28
Image Rareness	-	28
What is happening in picture	-	39
Type of children in the indecent image	13	56
Personal meaning derived from indecent image	7	6
Getting as many images as possible	-	50
Getting many different image types as possible	-	28
Average number of image-specific variables rated as important Mean (SD)	0.20 (0.44)	2.33 (1.50)

The Non-Collecting group reported that image-specific factors were generally not important in terms of deciding to download and save indecent images of children. A small minority in the Non-Collecting group rated the type of child in the image (13%) as important to gathering behaviour or being able to derive personal meaning from the image (7%), however, none appeared motivated by set completion, acquiring rare images, acquiring as many images as possible, acquiring as many different types of image as possible or by what was happening in the image. Image-specific motivators were highly important to the Collecting group, especially the type of child within the image (56%) and getting as many images as possible (50%). About a third of the Collecting group highly valued what was happening within the image (39%), set completion (28%), image rareness (28%) and getting as many different types of images. Image-specific motivators were a distinguishing variable between the Collecting and Non-Collecting groups, and the average number of image-specific motivators

reported as important was statistically different between the two groups, X^2 (5, N=33) =21.71, p=.001.

Cognitive Mechanism associated with Pathological Collecting

Table 17: Cognitive Mechanisms Associated with Hoarding and Collecting Behaviour

Variable	Sample All N=33	Non- Collecting N=15	Collecting N=18
Saving Cognitions Inventory (SCI)	(SD)	(SD)	(SD)
Total SCI	55 (29.23)	54 (25.44)	56 (33)
 SCI Emotional Attachment 	21 (11.91)	21 (9.81)	21 (13.6)
 SCI Memory 	12 (7.10)	11 (6.82)	13 (7.46)
SCI Control	11 (5.45)	11 (5.59)	11 (5.50)
 SCI Responsibility 	12 (7.80)	11 (6.11)	14 (9.05)

Non-Collecting and Collecting groups scored similarly on the Saving Cognition Inventory (SCI) and subscales. When the Non-Collecting and Collecting group average scores were compared with the mean SCI scores in the validation sample (Steketee, Frost & Kyrios, 2003), it is evident that both groups scored significantly lower than a hoarding sample. This suggests that the IIOC offenders in this sample did not exhibit cognitive processes associated with pathological collecting. The Non-Collecting group scored slightly lower (M=11) on SCI Responsibility than Collecting (M=14), suggesting that curatorship of the indecent images was slightly more important to the Collecting group.

Social Networking with other IIOC offenders

This IIOC sample reported high levels of contact with others interested in indecent images of children, with 84% of the total sample reporting some level of interaction and contact.

Table 18: Social Networking for All Sample and Collecting and Non-Collecting Subgroups

Variable	Sample All N=33	Non- Collecting N=15	Collecting N=18
Social Interaction	%	%	%
 Interaction/contact with others sexually interested in children 	47	47	47
Chose not to interact but knew others sexually interested in children	37	26.5	47
Did not know anyone with a sexual interest in children	16	26.5	6
Methods on making contact	% (n=15)	% (n=7)	% (n=8)
Peer-to-peer file sharing	51	14	88
Internet message boards	7	-	13
Internet news groups	13	-	25
Meeting personally	20	15	25
Internet chat room	54	57	50
Video-conferencing	7	-	13
Magazines/catalogues	7	14	-
MSN Messenger	7	14	-

The Collecting and Non-Collecting groups, 94% and 74% respectively, knew other people interested in indecent images of children. If those in the Non-Collecting group knew someone they were more likely to make contact, and they reported a preference for interacting with other IIOC offenders in Internet chat rooms (57%). Just under half (47%) of the Collecting group chose not to have contact and interact with this like-minded others, in comparison to only 26.5% of Non-Collecting group. Chi-square statistic revealed this difference in social networking behaviour was not statistically significant, X^2 (2, N=32) =3.09, p=.214 (ns). For those in the Collecting group peer to peer file sharing (88%) and Internet chat rooms (50%) were the two most popular methods for interaction with others known to have indecent images of children.

Discussion

Collecting and collection characteristics have been commented upon in behavioural typologies and seminal work into Internet sex offenders. More recent reviews into IIOC Only Offenders (Child Pornographers) have again raised awareness about the potential importance of collecting when considering IIOC behaviour (Henshaw et al., 2015; Prat & Jonas, 2013). This study aimed to investigate the hypothesized connection between IIOC offending and collecting behaviour. There were two key objectives for this exploratory study that is to describe the potential collecting characteristics (nature, function and process) identifiable in IIOC offending, and secondly examine whether those interested in collecting behaviours were comparable with IIOC offenders who reported no interest in collecting processes. Each of the objectives are considered and contextualised within our existing knowledge, and finally the limitations of the study and ideas for future research will be considered.

To explore IIOC offenders' interest in collecting behaviour a parsimonious version of McIntosh and Schmeichel's (2004) eight stage model of collecting processes was combined with the three components of an offence, to produce a new offence-collecting model. McIntosh and Schmeichel's (2004) Stages 1-4 were combined into preparation and hunt behaviours (pre-offence behaviours), Stage 5 acquisition is equivalent to the IIOC offence, and Stages 6-8 were amalgamated into post-acquisition behaviours (post-offence behaviours). Applying this new offence collecting model revealed that some IIOC offenders, about half, evidenced significant interest in collecting processes but there was also a substantial (45%) Non-Collecting group.

IIOC offenders in this study revealed similar demographic profiles to previous studies, they were white, middle-aged, well-educated, employed and more likely to be single (Babchishin et al., 2015; Elliott et al., 2009; McManus et al., 2015). The Non-Collecting IIOC group in this sample were slightly older, better educated, more were currently married and all were employed prior to imprisonment, often in high status jobs. The Collecting group were also relatively well-educated and employed, but in lower status positions and a small minority were unemployed.

Prior research suggests that the nature of the collections and sub-collections based on types of IIOC may reveal something about the offender and possibly about their level of sexual deviancy and risk to others (Seto, Reeves, & Jung, 2010; Quayle, 2008; Sentencing Guidelines, 2007). Collection size, the type and activity depicted in an IIOC and the size of specific accumulations by IIOC classification, e.g. how many COPINE level three, are the main ways nature of IIOC and IIOC accumulation have previously been thought about (Taylor, Holland & Quayle, 2001; Quayle, 2008). This study revealed considerable variability in the overall size of IIOC accumulations, with some offenders having only a few and others having tens of thousands. This size variability is consistent with previous findings (McManus et al., 2015; Long et al., 2013), and in comparison to the size of IIOC accumulations in these published studies the quantity of IIOC accumulated by this sample are comparatively small. The size of sub-collections, i.e. the number of IIOC by type and activity depicted, was again lower than previously reported figures although overall trends in collection configuration were confirmed. Images of children naked and posing naked were the most common images accumulated in this sample of IIOC offenders. In terms of the SAP scale, IIOC offenders in this study had proportionately more level one (M=200) images which involve erotic and explicit images of children posing, with a decreasing trend in the number of images as SAP level severity increased. As with previous research the most serious types of images depicting bestiality and sadism were rare in IIOC accumulations, and proportionately made up a very small part of the IIOC offenders accumulation (Carr, 2006; Quayle, 2008). A similar trend was noted in Long et al. (2013) and McManus et al. (2015), however the overall size of sub-accumulations defined using SAP levels were considerably larger, with IIOC offenders in Long et al averaging 10,730 SAP level one images and 5694 in McManus et al. (2015).

Whilst it is difficult to determine what may account for these substantial differences in size of IIOC accumulations and sub-accumulations across studies, potential reasons may be measurement problems, inadequate management of outliers, variation in the data collection methods and participant under-reporting. For instance, whilst there are IIOC classification systems to benchmark judgments on type and activity depicted in IIOC, there are no clearly defined counting methods for calculating size of IIOC accumulations, no procedure for managing duplicate images and externally derived systems ignore the IIOC offenders' subjective classifications of images which may underpin self-reported figures like those reported in this study. All of these factors impact on our ability to make meaningful comparisons regarding size of accumulations across studies.

Substantial differences in size of IIOC accumulations across IIOC offender studies may also be due to under-reporting, as the figures on size of accumulation in this study came from prisoner self-reports whereas McManus et al. and Long et al. both used more objective data garnered from the police investigations which resulted in much higher figures being The retrospective nature of this self-reporting in regards to size of their confirmed. accumulation is also problematic, as Hassan (2005) states year-on-year critical details of individual experiences about occurrences and facts are lost. Additionally failure to deal with outliers effectively may result in erroneous conclusions about size and which types of offenders have higher volume collections. In this study box-plots revealed one outlier and after accounting for the outlier the mean size of IIOC accumulations dropped significantly, however no management of outliers were present in studies with comparable IIOC samples (McManus et al., 2015; Long et al., 2013). An exploration of the nature of accumulations, types of IIOC gathered and size of sub-accumulations across those with and without an expressed interest in collecting behaviours revealed differences. After outliers were accounted for, the Collecting Group still had almost five times as many sexual images of children than those in the Non-Collecting group, but this difference was not statistically significant. Using MacPherson (2012) guidelines the average size of the IIOC accumulation could be considered small-low for Non-Collecting group and low-moderate for Collecting Groups in this sample. When the nature of images and sub-collections were considered by Collecting and Non-Collecting groups significant differences were again identified. The Collecting group appeared to have no anchoring point acquiring indiscriminately across all the COPINE, SAP and ABC levels. The Non-Collecting Group reported possession of more COPINE level one images, which would not be considered illegal. This diversity and lack of

anchoring points may be an interesting area for further study as it could reflect variations in collecting career, differing types of IIOC offenders-collectors e.g. fanatics vs connoiseurs, or represent detection evasion techniques in which lower grade images are kept.

Taylor and Quayle's (2003) Problematic Use of the Internet model conceptualised child sex offender's engagement with IIOC as an evolving process facilitated by the Internet and social networking. McIntosh and Schmeichel (2004) also describe an evolving collecting process using an eight step model, and this was simplified and combined with three key components of the offence cycle to produce an offending-collecting process. Pre-offence behaviours involving preparation and the hunt revealed two key pathways to getting started, that is incidental involvement through legal Internet activities followed by a process of refining an interest in IIOC; versus a direct route in which the person knows what they want and immediately starts hunting for IIOC. This partially confirmed the idea that some IIOC offenders describe as "stumbling" into indecent images of children (Taylor & Quayle, 2003; Sheldon and Howitt, 2007; Winder et al., 2015), and also provides some confirmation for the hypothesis that some IIOC offenders are just satiating their sexual desires through the Internet (Bourke & Hernandez, 2009; Taylor & Quayle, 2003). What happens as individuals progress from initiation into more entrenched patterns of engagement in the offendingcollecting cycle associated with IIOC was not examined in detail within this study, and it would be enlightening to understand IIOC mean-making regarding the evolution of their offending-collecting process. The two qualitative studies in this thesis which look at image collectors and IIOC offenders provide some valuable insights into the evolving collecting process, and suggest a process of refinement may be occurring in regards to identifying desired images, methods for pursuing the "ideal", honing the collection and evolution of the IIOC offender ("becoming expert").

When considering offence behaviours participants in this study were more likely to be mixed offenders (79%) who had contact and IIOC offences, and report a range of roles in IIOC offending especially possession of IIOC. The Collecting Group had more mixed offenders than the Non-Collecting group, and also reported greater involvement in IIOC processes and behaviour. Collecting Group members were more likely to possess and distribute IIOC and the only self-proclaimed producer was also in this group. The average age at initiation was 37 years for the overall sample. Getting involve in collecting behaviour in later age seems to be understood within collecting theory as Pearce (1995) states, "some child collectors become

adult collectors, some child collectors abandon collecting as they leave childhood behind and some adults collect who never did so as children" (p. 238). However, initiation in older IIOC offenders may just reflect changes in technology and the opportunity to garner these images only occurred later in life. A study specifically exploring initiation points and early criminal career development for IIOC offenders could shed light on this issue as well as helping us understand the evolving process of IIOC offending. As anticipated IIOC offenders used multiple methods to offend, with the Collecting group using more sources to obtain IIOC and spending 1-2hrs per day online engaged in IIOC activities. As previously identified sites specialising in IIOC, and spring boarding from adult pornography websites and Internet chat rooms were popular methods of perpetrating IIOC offending (Winder et al., 2015). Again, peer-to-peer file sharing was a popular source for acquiring IIOC (CEOP, 2012; IWF, 2012; Sheldon & Howitt, 2007; Wolak et al., 2012).

Post-offence behaviours, or the function of the IIOC has typically been considered from the perspective that sexual stimulation and gratification are the only plausible reasons for accumulating IIOC (Beech et al., 2008). Other functions have been speculated upon and this study tested the importance of collecting specific functions. Sexual gratification was a primary function for acquiring IIOC in this sample of convicted offenders, especially for the Collecting Group. As acknowledged in previous expert opinion papers (Krone, 2004; Lanning, 2010) a substantial group of the IIOC offenders (57.5%) may place little value on using the images for sexual gratification. This may reflect an unwillingness to admit to child sexual offending and personal sex habits, however it may also indicate that there may be other functions associated with accumulating IIOC which are more highly valued. Other functions of IIOC and IIOC collections have been postulated, such as personal rewards associated with collecting and collecting processes, pathological collecting, interest in collection management (e.g. organising), opportunity for social connection, psychosocial benefits, commercial gain, and refinement of offending technique using new mediums like the Internet (Carr, 2003; Taylor & Quayle, 2003, 2010; Sheldon & Howitt, 2007; O'Donnell & Milner, 2007; Middleton et al., 2006; Healy, 1996).

O'Donnell and Milner's (2007) hypothesised pathological collecting may drive some IIOC offending, and this study attempted to test this hypothesis by using the most valid psychometric screening measures for hoarding disorder and Asperger's Syndrome which may have a ritualistic collecting component. Findings from this study do not support the

pathological collecting hypothesis, although caution is encouraged when interpreting the results because screening measures can fail to identify potential hoarding and Asperger sufferers although false positives are more likely (Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001). Additionally, hoarding measures are not normed in a forensic sample nor validated for use in a prison context or for collecting of digital material, thus, a couple of minor adaptations had to be agreed with the test author prior to administration. With these caveats in mind, this study found that the vast majority of IIOC offenders do not have hoarding disorder or Asperger's Syndrome and those with higher scores on these measures were more likely to be in the Collecting group or have a specialist interest in only one part of the collecting process. There is however a sub-group (23%) of potentially mental disordered IIOC offenders who perhaps have hoarding disorder, Asperger's Syndrome or both. This study also suggests hoarding disorder may be more prevalent in IIOC offenders than in the UK general population which is estimated at 1.5% (Nordsletten et al., 2013), however the sample size is too small and further investigation is recommended. To further clarify the potential presence of hoarding issues the Saving Cognition Inventory (SCI) was used, and again it was found that a very small sub-group had elevated scores on the SCI but generally the cognitive mechanisms thought to underpin hoarding disorder where not present in this IIOC sample. One cognitive mechanism which showed a slight elevation in this IIOC offending sample was the Responsibility subscale, which reflects a need not to waste objects once in your possession. This may reflect a specific collecting based offending distortion relevant only to IIOC offenders, and may be worthy of further exploration along with the other IIOC specific distortions identified in study two.

It has been hypothesized that collecting may provide relief from anxiety, depression and subjective feelings of distress (Muensterberger, 1994; Middleton, Elliot, Manville-Norden & Beech 2006; Sheldon & Hewitt, 2007; Subkowski, 2006). Whilst this emotional regulation hypothesis is not directly tested in this paper, it was clear that this IIOC sample did not have severe anxiety and depression warranting diagnosis, however they did report subjective feelings of distress prior to imprisonment. This finding is consistent with previous research which found that IIOC offenders often had less severe mental health issues (Henshaw et al., 2015).

Image and collection specific motivators have been suggested as drivers of normative collecting behaviour and IIOC offending. Collection management issues, such as organising and ordering did not seem particularly important to the IIOC offenders in this sample. This is similar to prior findings. Taylor and Quayle (2003) and Sheldon and Howitt (2007) found that collection management was important for only some IIOC offenders. More specifically, Lanning (2010) asserted that collection management/organisation was most important for preferential paedophiles types. Sharing IIOC and social networking with like-minded others are considered by the judiciary an aggravating factor when sentencing, and thought to be pivotal in perpetuating the gathering and accumulating of IIOC (Elliott & Beech, 2005; Krone, 2004; Sheldon & Howitt, 2007; Wolak et al., 2013). In this study sharing IIOC was not reported to be a common behaviour, with the majority of IIOC offenders declaring they did not share. When sharing did occur for this sample of IIOC offenders tended to engage in low volume methods, that is a mutual process between specially selected others. Only a few of those in the Collecting Group shared in a manner which might be considered high volume, that is distributed images freely with anyone who was interested. Rights of access and sharing behaviour may be an important within group discriminatory variable, as there seems to be a group of Secure Low-Volume Sharers and a group of Non-Secure High-Volume Sharers within this IIOC sample. This idea of how people share, i.e. secure or non-secure is reflected in Krone's (2004) behavioural typology of Internet sex offenders and other research examining how offenders conceal their online and downloading activities (CEOP, 2013; Lanning, 1992; O'Donnell & Milner, 2007). Capacity for social networking was highly valued by the vast majority of IIOC offenders sampled, however those with an expressed collecting interest where less likely to report using these IIOC related social contacts. Social networking is an important element of IIOC behaviour according to previous research (Krone 2004; Sheldon & Howitt, 2007, Taylor & Quayle, 2003). The judiciary also see involvement in social networking as a signifier of higher levels of involvement and deviancy within IIOC and it is included in the new SODG guidelines (2014).

For the Collecting Group, image-specific motivators were highly valued, with the type of child and activity in the images along with getting as many images as possible being highly motivational for these IIOC offenders. Collecting variables like rareness of image and completing sets or series, were typically not valued by IIOC offenders, however there was a very small number in the Collecting group who rated set completion as highly important. Overall personal meaning was not rated as important by IIOC offenders, which is contrary to

previous suggestions that the IIOC offenders may use the image to memorialise prior offending and to understand prior abuse (Lanning, 2010; Muensterberger, 1994; Subkowski, 2006).

This study revealed that contrary to McIntosh and Schmeichel's (2004) original conceptualisation individuals did not identify with all the aspects of the eight stage model of collecting process, and there may be individual differences in the time taken to move between stages. This study found for some IIOC offenders there was a rapid movement through the first four stages of McIntosh and Schmeichel's model, with some offenders, particularly Collecting group members, reporting clear ideas about what they wanted to gather from initiation and then deliberately searching for IIOC using specific sources where child abuse images could be obtained. Whether this evolution in collecting process parallels Taylor and Quayle's (2003) idea of evolving into more serious cybersex behaviour through use of the Internet or is contrary to this hypothesis in that it is a deviant group using the Internet to get what they want remains to be tested.

McIntosh and Schmeichel's stage seven was also omitted by a high proportion of IIOC offenders, with only 18% reporting an interest in cataloguing and ordering, and only 3% reported showing their IIOC accumulations. Rather it seems many offenders often discard images once it has fulfilled its usefulness, and this lack of interest in organising digital material but still keeping it may reflect what Bell and Gemmell (2007) and McNally (2010) found when studying digital collectors, that is a file and forget phenomena due to the expansive memory available with advancement in digital technologies.

The current study also revealed that perhaps the collecting process is not a single perpetuating cycle as proposed by McIntosh and Schmeichel (2004), rather there could be mini-cycles which are each self-reinforcing. This study found that individuals' value different parts of the offending collecting cycle, with some specialising in the hunt (searching for images) or post-acquisition behaviours linked to organising and cataloguing. How involved an individual is in the differing aspects of the offending-collecting cycle could be an interesting avenue for future research, as behaviourist ideas would suggest that the more aspects of a process that a person finds rewarding then the stronger the urge to engage and re-engage in that behaviour may be (Ferster & Skinner, 1957; Skinner, 1953). Glasgow (2010) contends that risk and deviancy was related to higher levels of involvement with IIOC behaviours and processes,

and this hypothesis was confirmed McCarthy (2010). A future study may want to investigate the impact of cumulative involvement in collecting processes, such as hunting, acquiring, organising, sharing and/or networking, as this may be more revealing than analysis of IIOC individual collecting processes. Additionally general interest versus specialist interest in collecting mini-cycles could perhaps elucidate different clinical forensic profiles within IIOC offender groups, and it might be suggestive of differing treatment and risk management needs.

This study marks the first attempt at trying to understand IIOC offenders from a collecting perspective, and it has a number of limitations. This study had a small volunteer sample, with few IIOC-only offenders, additionally the sample was based in a rehabilitative and treatment-oriented prison, which all impacts on the representativeness of this sample. No official criminal history information was accessible, therefore it is impossible to account fully for the forensic profiles of this sample. The hoarding measure also had to be adapted to suit a forensic environment, and whilst it has shown comparable internal consistency it is important to note the adaptation to the measure. This adaption may result in historic as well as current saving experiences being used to rate the items as the SI-R one month question qualifier had to be removed. This removal was due to all participants being imprisoned and held in cells with strict rules regarding permitted content. Finally, this initial attempt at examining the collecting characteristics of Internet sex offenders suggest that the Collecting Group may exhibit more of the aggravating factors associated with perceived high deviancy in sentencing guidelines. Whether these collecting specific factors translate into actual elevated risk of recidivism or contact offences remains to be tested, however this exploratory concurs with Henshaw et al.'s (2015) conclusion that collecting characteristics may provide an invaluable resource for identifying unique risk factors for child pornography only offenders.

CHAPTER 7: Conclusion

This thesis set out to understand whether there was a collecting aspect to the offending behaviour of child sex offenders who have indecent images of children, and the experiences of those who gather and accumulate legal and illegal images. The pathological collecting-offending hypothesis associated with IIOC offenders was also tested.

New Collecting Frame

To examine this collecting-offending hypothesis it was considered imperative to operationalise the concept of collecting and indecent image of children (IIOC) offending. Clarifying collecting and IIOC offending terminology may also help start a process of unifying disciplinary efforts and simplify the language, which in turn may help synthesise our current knowledge and promote more dialogue and research about collecting behaviour, as well as a potential collecting aspect to IIOC offending. It became clear when trying to operationalise the concept of collecting that even though collecting behaviour is a widespread human activity with about 50% of the adult population collecting at some point in their life (Pearce, 1998), it is poorly understood. To date, there are only thirteen empirical sources, a handful of books and a range of multi-disciplinary theoretical papers commenting on collecting. This very small, piecemeal and theoretically disparate literature had never been reviewed and there is no agreed terminology to describe the phenomenon of collecting.

From reviewing the corpus of academic and other available literature examining human collecting in chapter one, a collecting language emerged and these ideas are summarised in Table 19. This is referred to as a collecting frame, and is conceived as a relational matrix incorporating three core collecting units termed the collectible, the collection and the collector, and three core elements termed nature, function and process.

As stated in chapter two, the collectible refers to the individual object desired and acquired, and this may be externally or internally classified. The collection is the accumulation of acquired objects of which the relationship between the objects may be explicitly obvious, such as a set, or implicitly derived by the owner through their own subjective processes. A collection may also be primary or secondary. The collector is the person who owns the collectible and collection, and prior research suggest that collectors are not homogeneous and

often engage in genre specific collecting and possibly gender-specific collecting (Martin, 1999; Pearce, 1998).

Table 19: Proposed Collecting Frame

		COLLECTING UNITS		
		Collectible	Collection	Collector
COLLECTING ELEMENTS	NATURE The intrinsic nature and imbued qualities.	Nature of individual objects and their content e.g. a postcard, the type of behaviour or activity in the postcard.	Nature of the group or sub-groups of objects, e.g. total size, primary sets, secondary material, sub-sets, and the subjective or objective relationship between the collectibles in the collection	Nature of the person gathering the collectibles, e.g. demographic, clinical and, if relevant, forensic profiles. Behavioural typologies e.g. fan, connoisseur, trader, etc.
	FUNCTION The purpose and benefits of collecting to the collector.	Function of the individual object, e.g. offers completeness of a set, connection to past experience, monetary gain, aid to memory, aesthetic value. Projection of self into the object creating merger with the collector.	The function of the group of objects, e.g. collection shows ownership, benchmark for social comparison and goal setting, archive, completeness, something to display, etc. Collection as a reflection of self, and acknowledged as socially valuable. Projection of self into the object creating merger with the collector.	The function of collecting to the individual person, such as reduces anxiety, pleasure, self-esteem building, emotional attachment, sense of mastery and control, fantasy enhancement, develops social relationships.
	PROCESS How one goes about collecting, and evolution overtime.	Researching, searching, acquiring, post-acquisition possession rituals and refinement of the interest over time, e.g. the hunt, possession rituals, and anchoring of interest. Projection of self into the object creating merger with the collector.	Collection management e.g. ordering, cataloguing, display, security, concealment, rights of access and refinement of the collection overtime. Collection as a reflection of self, and acknowledged as socially valuable.	Evolving collector both in terms of knowledge and psychosocial development e.g. personal growth, building knowledge and expertise, acceptance by collecting community and authorative bodies.

Nature refers to inherent and/or imbued qualities placed on the collectibles, collection and the relationship between the collectibles grouped in the collection. The nature of the collector relates to the personal and psychological characteristics of the person who gathers and keeps the collectibles, and perhaps typologies of collectors. Function refers to the drivers for collecting that is those variables which trigger, perpetuate and maintain collecting behaviour. Prior research and the studies included in this thesis suggest that the functions may be economic, cognitive, behavioural, emotional and social (Muensterberger, 1994; Middleton, 2008; Pearce, 1998; Steketee et al., 2003; Subkowski, 2006), and these drivers can be considered at the level of the collectible, collection and from within the collector. The collecting process refers to how the person goes about collecting, and is theorised as a constantly evolving process whereby the consequences (real or perceived) of each episode of collecting behaviour or attempts to collect influence subsequent collecting decisions.

Therefore, the nature of what a person deems a collectible and the nature of the collection is thought to be dynamic, changing overtime as the collector evolves and refines their knowledge and interests through repeated repetitions of collecting process behaviours. This refinement process is also likely to be evident in changes overtime in methods and sources used to collect. In comparison to previous work, this thesis has given refinement a more defined and fundamental role in collecting behaviour, and this theoretical idea will be discussed in more detail as the findings from the three studies are reviewed. At a theoretical level, perhaps it would be helpful to better understand the potential refinement process and its impact on the core collecting units and elements.

To examine the collecting-offending hypothesis associated with IIOC offending, it was contended within this thesis that the core collecting units of the collectible, collection and collector needed to be considered, as well as the core collecting elements of nature, function and process. Whilst it was deemed morally questionable to describe sex offenders purely as collectors or illegal image collectors, the concepts needed to be applied to thoroughly examine the collecting-offending hypothesis. Consequently, minor modifications where made to the terms in the collecting frame, that is the term collector was substituted with the term IIOC offender – the person who gathers and accumulates erotic images of children and indecent images of children. The "collectible" was changed to the term images of children erotica (IOCE) and indecent image of a child or children (IIOC). The "collection" was referred to in sex offending studies as the accumulation or IIOC accumulation. The collecting process, where possible was described in terms of the actual IIOC offender's behaviour that is gathering, keeping and so on. Occasionally the term collecting was used in regards to IIOC offenders as this is the terms used in the original studies or to support sentence flow on occasion.

None of the empirical collecting sources considered the specialist genre of the image or legal pornography collector, an obvious comparison group or basis from which to speculate about whether child sex offenders who gather indecent images of children are engaged in a form of illegal collecting behaviour. Using the collecting frame (Table 19) the key studies and expert opinion on IIOC offending were synthesized in chapter two. This collecting frame proved helpful in mapping the landscape of prior IIOC research, particularly that which incorporates a collecting perspective. It was concluded that much of the extant literature were group based studies focused on understanding the psychological and criminogenic nature of the IIOC

offender or empirical (qualitative and quantitative) studies examining the nature of IIOC images and accumulations often by applying external classification systems to characterise, such as COPINE and SAP scales. Use of externally derived classification systems which account for the amount and nature of IIOC in terms of levels of severity and deviancy do not allude to the subjective meaning that the IIOC offender may imbue onto individual IIOC and the accumulations. Nor does application of these external classification systems permit examination of the idea that what is collected may have a personal meaning and symbolise past experiences or possess for the collector an experiential emotional connection (Muensterberger, 1994; Nordsletten & Mataix-Cols, 2012). Understanding a person's unique relationship with their desired objects and how they connect objects to form a collection may be revealing about the owner's inner world, especially when the relationship between owner and object is considered over time. Extending this idea from collecting theory to IIOC offending indicates it is important for the external observer to understand the IIOC offenders' subjective ideas about what makes an IIOC valuable, how they connect IIOC in their accumulations and their decision making processes regarding searching, using, keeping and discarding IIOC. This latter statement reflects collecting process and the refinement of ideas based on experiential learning from prior offending behaviour. Exploring the IIOC offender's unique relationship with their object(s) and perhaps the meaning imbued into individual IIOC and IIOC accumulations may offer a window into the offender's inner world and a deeper understanding of the potential collecting aspects of IIOC offending.

The function of collecting as well as IIOC offending has been speculated upon, producing a relatively consistent finding that the desired object as well as the collection often serves multiple functions. In terms of the collectible itself, some collecting theorist argue that original function needs to be negated in the creation of a collectible object (Belk, 1995; McIntosh & Schmeichel, 2004). Others theories suggest that the objects original function may be an important part of a collectible (Carey, 2008; Pearce, 1994). Sexual stimulation would seem to be the original function of IIOC and it has been identified as a primary motivator for many IIOC offenders (Taylor & Quayle, 2003). Although not all IIOC offenders appear to use images for sexual gratification, and currently it is unclear if this a nebulous finding. Alternatively it may suggest a distinct group of IIOC offenders, cognitive distortions (denial or positive impression management), IIOC interest is only for financial gain or reflects an interest only in the collecting processes (Krone, 2004; Lanning, 2010).

Collecting researchers offer ideas about the processes of collecting (Belk, 1995; Danet & Katriel, 1989; Martin, 1999), however these theories are often used retrospectively in previous IIOC research to explain findings rather than applied prospectively to hypothesis test. The only psychological model of collecting process was developed by McIntosh and Schmeichel (2004) and this has been given little consideration within both the collecting literature and IIOC research. McIntosh and Schmeichel's (2004) model also suggests collecting process evolves through repeated repetitions of eight sequential collecting stages. Applying McIntosh and Schmeichel's (2004) eight stage model to IIOC research, revealed that some stages of the collecting process have been focused upon more than others, such as initiation processes, methods and sources used by IIOC offenders to hunt for and acquire images, and post-acquisition behaviours, such as concealment, organising and cataloguing (Gillespie, 2008; Lanning, 2010; O'Donnell & Milner, 2007). The subjective experiences of IIOC offenders have been considered but never from a perspective underpinned by collecting theory and through a clear collecting frame which seeks to understand mean making in terms of the nature, function and processes associated with individual images and groups of images. In summary, collecting processes have been considered but in the absence of a theoretical collecting model underpinning these efforts coverage is patchy, and the dynamic nature of the collection in terms of refinement, patterns in collectible usage, changes in collection/subcollections overtime and the nature of secondary collections have been neglected. It was contended within this thesis that the collecting frame (Table 19) and McIntosh and Schmeichel's (2004) model of collecting process would provide a theoretical starting point for examining collecting behaviour in study one and collecting-offending behaviour in study two. A parsimonious version of McIntosh and Schmeichel's (2004) model was developed in study three to aid testing and integration of the core processes of collecting with key components of the offence cycle. McIntosh and Schmeichel's (2004) Stages 1-4 were combined into preparation and hunt behaviours (pre-offence behaviours), Stage 5 acquisition is equivalent to the IIOC offence, and Stages 6-8 were amalgamated into post-acquisition behaviours (post-offence behaviours).

Based on the literature reviews in this thesis, three exploratory studies were designed and implemented. In this thesis, a mixed method design was used, where qualitative and quantitative data were given equal priority and the findings from all the studies then merged in the final conclusions to give meaning and detail to our understanding of collecting behaviour and the collecting-offending hypothesis associated with IIOC offending. The two

Interpretive Phenomenological Analysis (IPA) studies explored the experiences and permitted comparison between the collecting behaviour used by image collectors and offenders with IIOC. The quantitative study used a specially designed survey drawn from collecting theory and IIOC research, to examine whether a collecting group could be identified. Applying this new collecting-offence model to the sample of 33 IIOC offenders in study three, revealed that some IIOC offenders, about half (54%), evidenced a significant interest in collecting processes but there was also a substantial non-collecting IIOC group who may have little or no interest in collecting behaviour. The nature, function and process of collecting behaviour in the IIOC offender sample and the Collecting and Non-Collecting subgroups were investigated, and validated psychometrics where used to test for the presence of mental disorders which some have speculated may be associated with IIOC offending (Sheldon & Howitt, 2007; O'Donnell and Milner, 2007). Each of the components of the collecting frame will be considered in terms of new information generated by the aforementioned studies and the findings will be contextualised within existing research and ideas for future research extended.

Nature of Core Collecting Units (Collector, Collectibles and the Collection)

Nature of Image Collector and IIOC Offender

The nature of the collector refers to those unique characteristics which appear to describe collectors, differentiate collectors from hoarders or non-collectors, and possibly differentiate people within collecting genres, such as collecting behavioural typologies like Chung et al.'s (2008) fans and fanatics. The nature of the IIOC offender is well recognised through empirical studies (reviews Babchishin et al., 2015; Henshaw et al., 2015), as is the pathological collector - hoarder (reviews Nordsletten & Mataix-Cols, 2012), however less is known about the normative collector and their characteristics (Nordsletten et al., 2013). The studies in this thesis found that image (postcard) collectors and IIOC offenders were predominantly Caucasian, well-educated and employed or previously employed in skilled jobs. This demographic profile confirms prior findings (Babchishin et al., 2015; Henshaw et al., 2015; Nordsletten & Mataix-Cols, 2012; Nordsletten et al., 2013). Men were solely sampled in this thesis as this reduced the potential of confounding male and female differences in collecting (Martin, 1999), but males were also the focus due to the low numbers of convicted female IIOC offenders (Gannon & Cortoni, 2010). It was not intended

to recruit only white participants however these were the participants who volunteered. The image (postcard) collectors in study one were on average older (M=64yrs) than IIOC offenders sampled in studies two and three whose average age was 51years and 48years, respectively. A suspected participant bias in study one is thought to account for this difference, with older and more experienced image collectors volunteering, and this means little can be said about younger and more novice image collectors. Again, little can be said about younger IIOC offenders, and one would expect cohort effects in IIOC offending due to generational differences in Internet use and technological know-how (Jones & Fox, 2009; Mossberger, Tolbert & Gilbert, 2006; ONS, 2015). This finding does not support prior research which reported that IIOC offenders are younger, and this is especially true when the IIOC group includes mixed offenders (Lee, Lamade, Schular & Prentkey, 2012; Elliot, Beech & Mandeville-Norden, 2013). Future research into image collecting and IIOC offending would be advised to purposively broaden the sampling frame to include females, younger people and non-White participants.

Collectors were more likely to be in committed relationships than hoarders (Nordsletten et al., 2013), and study one supports this assertion as 70% of image collectors reported being married. Previous IIOC offender research has produced inconsistent findings with regards to relationship status, and this study found 28% and 15% of participants were married in studies two and three, respectively. Interestingly study three revealed that those with an expressed interest in collecting processes ('Collecting' Group members) were more likely to be married than those who reported minimal interest in collecting. Relational issues appear to be an area of inconsistency in IIOC studies and an avenue of future enquiry may be to clarify whether IIOC offenders collecting behaviour is confounding results.

Previous research suggested that normative collectors and IIOC offenders are relatively free from mental health issues (Henshaw et al., 2015; Nordsletten & Mataix-Cols, 2012). The results from study three partially support prior findings from IIOC research, as low levels of anxiety and depression were self-reported by participants before coming to prison. O'Donnell and Milner (2007) and Quayle et al. (2015) hypothesis that some IIOC offending may be related to mental disorder or learning needs associated with pathological collecting. This hypothesis was tested but not confirmed. A small proportion (7/33) IIOC offenders reported elevated scores on screening measures for hoarding disorder, Asperger's Syndrome or both. Those individuals who crossed the diagnostic line for hoarding disorder were all in the

Collecting group, and with the exception of one participant most potential Asperger sufferers were also in the Collecting group. Interestingly the Non-Collecting group prisoner whose AQ-10 score was suggestive of possible Asperger's Syndrome was the individual who reported a specialist interest in post-acquisition behaviours, in particular using images for sexual gratification, organising and cataloguing. This finding should be interpreted cautiously as the hoarding psychometric measure had to be adapted to suit a prison population and false positives are highly probable when using screening measures such as SI-R and AQ10 (Allison, Auyeung & Baron-Cohen, 2012). Findings would need to be replicated, but this exploratory study suggests there may be a minority of IIOC offenders who have collecting related mental health conditions. Understanding characteristics of this subsample may be a line of enquiry worth pursuing as it may have significant implications for risk assessment and treatment as hoarders and Asperger sufferers are unlikely to remit - stop collecting IIOC after completing I-SOTP treatment and are likely to have their own unique treatment needs linked to the mental health conditions which may need attention (Frost & Steketee, 2014; Toth & King, 2008; Williams & Viscusi, 2016). Additionally mental disorders have been added as a mitigating factor in the new UK sex offender sentencing guidelines in 2014, and the findings from study three would suggest that in some cases pre-trial assessment for hoarding and/or Asperger's Syndrome may be called for to ensure individuals with a developmental or mental disorder are not being unduly criminalised.

Nature of Collectibles ("IIOC") and Collection (IIOC Accumulation)

Nature of the collectibles refers to the individual objects within the collection, and virtually anything could be considered a collectible (Nicholson, 2006; Nordsletten et al., 2013; Pertusa et al., 2008). Studies one and two found the image collectors and IIOC offenders reported an interest in specific images based on the content or activity depicted. For example an image collector in study one said "I collect topographical postcards which are linked to family history, so places that our ancestors lived". An IIOC offender in Study two asserted "I have to have the ones that are looking smiling and happy". This idea that collectors and IIOC offenders get focused on a particular type of collectible or IIOC has been previously identified (Carr, 2006; McManus et al., 2015; Nordsletten et al., 2013), and supported by the studies in this thesis.

Image (postcard) collectors in study one and IIOC accumulators in study two expressed reasons for possessing particular types of images which were imbued with some symbolic

relationship to self-experience. For instance, an image collector reported "I've got images of two collieries that my granddad worked in. You know that's linking me with his life, 'cause I went into mining". An IIOC offender self-identified stating "it had to start with something that looked like me as a child. I had to relate, to see my abuse, it had to be similar to me". For some image collectors and IIOC offenders the images acted like a conduit to their autobiographical memory, supporting their ability to relate back to positive as well as negative life experiences. This insight into the personal relationship between the nature of the image and the owner was not ubiquitous, as some participants in study one and two stated that they had "no idea" why they gathered particular images or superficially stated "I am just interested". Lack of insight could be associated with novice status, representing an early phase in their collecting career were they are learning about and refining their knowledge on what is the ideal nature of the images they like and want to acquire.

Studies one and two revealed that both image collectors and IIOC accumulators used cognitive strategies to implant themselves in their images resulting in a symbiotic relationship developing between the collector/IIOC offender and their accumulation of images. Cognitive rehearsal and fantasy seems central to the process of implanting oneself in the image and getting to know the place or person depicted. Study one and two suggest that both image collectors and IIOC accumulators create an emotional connection with the image by linking it with their auto-biographical memories. Image collectors tended to idealise and empathise with the content of the depiction and those involved, whereas IIOC accumulators appear to show minimal empathy when manipulating the image and dehumanising individuals. These cognitive distortions may support the IIOC offender in negating guilt and shame which then allows the offender to use the IIOC to meet their specific needs.

Nature of the collection refers to the nature of the group or sub-groups of collectibles in the collection. Prior research has typically viewed the collection in terms of size, descriptions of the kinds of objects making up the collection and quantities of types of images (Nordsletten & Mataix-Cols, 2012; McCarthy, 2010; Pearce, 1993). This thesis argued against a linear relationship between collection size and deviancy, instead applying a more dynamic and subjective conceptualisation of the concept of the collection. The studies reported in this thesis support previous findings that collection size varies greatly within collecting samples, and studies one and two suggest that collection size may vary across time e.g. in study one the image (postcard) collector spoke of having had 60,000 images but had refined his

collection to 8,000. Findings from study two and three suggest many IIOC accumulators did not have large collections but it was not clear if that was always the case, as some participants in study two acknowledged they discarded IIOC accumulations through fear of detection and restarted when fear had reduced evidencing small collections when convicted and potential understanding of deviancy would be lost.

Size may not be an essential marker of deviancy, rather greater emphasis should be placed on the relationship between objects and some theorists define the relationship in terms of nature and others emphasize the relationship in terms of functionality to the owner (Belk, 1995; McIntosh & Schmeichel, 2004; Pearce, 1993). Behavioural typologies of Internet sex offenders (Elliot & Beech, 2005; Krone, 2004; Lanning, 1992) and normative collectors (Saari, 2007; Chung et al., 2008) provide a more subtle analysis of the relationship between the owner and the objects accumulated. Studies one and two confirm this idea that for some, the inner world of the collector or IIOC offender can be inferred from what is collected, why it is collected as well as the owner's narrative about how images accumulated relate to one another, such as images collected represent positive or negative past life experiences. Within studies one and two it was also theorised that the growing size of a collection may be due to image collectors and IIOC offenders continual need for novelty, and the belief that "the grass is greener" and there is always something better or more exciting to get.

Personalised collection anchoring points based on specific characteristics of images were discernible in studies one and two. Use of external classifications like COPINE, SAP and ABC scales in study three proved extremely helpful in imposing an order to the subjectively defined collectibles, and helped identify patterns in IIOC acquisition and possession. Overall inferences drawn from studies one and two suggest that whilst image (postcard) collectors and IIOC accumulators often specialise within their collecting genre, they still had a diversity of images in their collection and sometimes secondary material which may be used to support the primary interest. This idea of secondary and primary material is a concept from consumerism studies (Thorne & Bruner, 2006), however the concepts may have relevance for IIOC offenders, in particular determining if the IIOC offender has a primary interest in IIOC or the images were secondary material to support contact offending and online grooming (Webster et al., 2012). Some studies have considered this idea of primary and secondary collections through examining proportions of adult pornography to IIOC and proportion of different image categories e.g. SAP levels. For instance, McCarthy, (2010) found that mixed

offenders had proportionately more indecent images of children to adult pornography within their collections. Whilst adult pornography was not measured in study three, use of COPINE categories revealed that the IIOC offenders had proportionately more images of child erotica (COPINE levels 1-4) than indecent images of children. SAP level one images which depicted explicit and erotic posing was the anchoring point for IIOC offenders' illegal image accumulations. Other studies, such as, McManus et al. (2015) confirmed similar findings that IIOC offenders are anchored in less deviant SAP levels 1 and 2. Both Collecting and Non-Collecting groups had a diversity of images across the entire SAP levels, however there was a trend for the Collecting Group to have more indecent images of children including those images which depicted penetrative sex with children (SAP Level 4) and bestiality and sadism (SAP Level 5). Aslan and Edelmann (2014) demonstrated that mixed offenders had proportionately more SAP level 5 images, and the Collecting group in this IIOC ample had a substantial proportion of mixed offenders. Changes in anchoring points across time may be a useful collecting characteristics to assess in regards to identifying risk profiles. The underlying principle in this idea is that collectors' refine and hone collections over time, and this refinement and honing process may reflect the developing/developed sexual preference of the IIOC offender. This honing and refinement of collections is evident in both studies one and two. The subjective nature of collecting may also mean that individual may develop their own unique anchoring point e.g. children smiling, and these anchoring points may not be identified by simply applying external classification systems, e.g. SAP levels.

In summary, both collectors and IIOC offenders in studies one and two had identified specific types of images as a primary interest. In many cases these images seemed to relate to autobiographical memories as well as sexual arousal for the IIOC accumulators, although both studies evidenced participants who had no insight into why they collected specific images. Many collectors and IIOC accumulators immersed self into the images, but as will be discussed later rather than being empathic and devotional to the content of the image evidenced by image collectors, IIOC accumulators were found to show little empathy and cognitive distortions allowed then to dehumanise the children in the image. The nature of the collection has also been viewed in terms of size but this is variable between groups who gather and accumulate and particularly changeable when the collection size is considered overtime. It appears changes overtime may be due to the owner refinement of interest due growing knowledge and experience, and additionally for IIOC fear of detection is an issue. If these ideas are confirmed in subsequent research, then this could have important practical

implications. For instance when the police are gathering evidence, forensic ICT techniques could be used by the police to examine not only collection size but patterns in collectible usage, changes in collection/sub-collections anchoring points overtime and the nature of secondary (possibly legal) in proportion to primary IIOC collections. A useful assessment strategy for practitioners may be to focus on collection characteristics, in particular how the IIOC accumulation evolves over time and how the IIOC offenders' think the collectibles fit together in the collection and their narrative about how their accumulation of images have developed over time. Alternatively these ideas could be adapted into a treatment technique to improve insight into the function of collecting behaviour e.g. 'a biography of the IIOC collection'.

Function of Collecting and Gathering Behaviour

Function refers to the drivers for collecting and gathering and those variables which trigger, perpetuate and maintain collecting behaviour. Prior research and the studies included in this thesis suggest that the functions may be cognitive, behavioural, emotional and social (Muensterberger, 1994; Middleton, 2008; Pearce, 1998; Steketee et al., 2003; Subkowski, 2006). These psychosocial drivers can be considered at the level of the collectible, collection and from within the collector. Contrary to Wolak, Finkelhor and Mitchell, (2005) who found 3 out of 10 IIOC offenders were involved for commercial gain, none of the IIOC offenders in study two or indeed collectors in study one identified commercial reward as an important motivator for collecting and gathering images. This lack of financial motivation was also confirmed in study three, as none of the participants reported making money as a motivator for their offending behaviour. Minimal support for commercial gain as a motivator for IIOC offending may reflect the lack of producers/manufacturers within the current samples (McManus, Long & Allison, 2011).

Applying basic behaviourist ideas, the findings from the studies in this thesis suggest that collecting, the collection and collectible appear to offer opportunities for rewards which may act as positive reinforcers to continue gathering and accumulating images. Gaining pleasure directly from (re)searching, possessing and using the object has been found in many studies examining normative collecting (Nordsletten et al., 2013) and IIOC offenders (Carey, 2008; Sheldon & Howitt, 2007). Within study three approximately 43% of the overall sample suggested that masturbation was a very important reason for acquisition of IIOC, and this was

particularly true for those in the Collecting Group with the vast majority (73%) rating sexual gratification as an important motivator. Findings from study two suggest that the IIOC was used for sexual arousal and that continuance in offending was due to what some described as addiction or drug that you keep going back for another sexual fix. Habituation to the image may explain why some image collectors and IIOC offenders reported disappointment and disinterest after a period of image ownership, and a need to regain feelings of excitement through further acquisitions and looking for something better or more novel.

Satisfaction was also obtained from the desired collectible by having an object to hand which automatically elicited positive memories, fantasy and sense of care (Muensterberger, 1994; Subkowski, 2006). McIntosh and Schmeichel (2004) noted satisfaction and enjoyment also came from "possession rituals" after a collector has acquired an object of desire, such as the participant placing the postcard on the mantelpiece to view for a period of weeks. These potential rewards associated with individual images and the image collection were reported by the image collectors and IIOC accumulators in studies one and two, and are consisted with previous findings about the multiple functions of collecting (Muensterberger, 1994; Middleton, 2008; Nordsletten & Mataix-Cols, 2012; Pearce, 1998; Steketee et al., 2003; Subkowski, 2006). Positive social feedback from sharing with others about what has been gathered, knowledge built, growth of self-esteem and a sense of protecting the past so others can understand our history have been identified as potential motivators for collecting in study one. In study two the social aspect of collecting was not reported as important by IIOC offenders, with most of the IIOC accumulators indicating during interview that their collections were private and for personal use only. Study three contradicts the findings from study two and found that whilst sharing and social networking was not a pervasive behaviour, about a third of IIOC offenders shared images and 47% interacted with others known to have an interest in indecent images of children. The forensic context may have had a bearing on how open IIOC offenders are about admitting sharing and social networking, as both are considered aggravating factors by the judiciary and could lead to longer sentences. Perhaps differences in research methods between study two and three contributed to the inconsistent findings, with the anonymised survey possibly offering IIOC offenders a way to report their social networking behaviour without fear of legal consequence.

Collecting and accumulating IIOC may also serve the function of reducing painful feelings, Study two and prior research linked collecting with disrupted attachment experiences and dealing with memories of past trauma as potential negative reinforcers which may motivate normative collecting, hoarding and IIOC accumulating (Frost & Steketee, 2014; Muesterberger, 1994; Nordsletten & Mataix-Cols, 2012; Subkowski, 2006; Taylor & Quayle, 2003; Quayle Vaughan & Taylor, 2005). As mentioned earlier quantitative studies have found low levels of anxiety, depression and trauma in IIOC offenders (Babchishin et al., 2015; Henshaw et al., 2015) and similarly low levels of anxiety and depression were noted in the IIOC offenders in study three. Interestingly higher levels of self-reported emotional distress were reported by the IIOC offenders in study three, and this may be related to many issues, such as going to prison but mental health issues may also be a factor, such as trauma, hoarding disorder, Asperger's Syndrome and compulsions, in particular sex compulsivity (Griffiths, 2012; Henshaw et al., 2015). Exploration of what this subjective distress relates to and how, if at all, it connects to IIOC offending may be avenues warranting dedicated examination.

Cognitive mechanisms have been implicated in the maintenance of collecting behaviour, particularly in hoarders and IIOC offenders (Steketee et al., 2013; Nordsletten et al., 2013; Middleton et al., 2006). Nordsletten et al. (2013) is the only study to consider cognitive mechanism in regards to normative collecting, and found low scores on all scales of the Saving Cognition Inventory (SCI) and proposed that the cognitive mechanisms may differ between hoarders and normative collectors. Findings from study three showed lower scores on SCI emotional attachment and control, and similar scores on memory and responsibility between the IIOC sample and Nordsletten et al.'s normative collector group. IIOC offender's SCI scores where on average low on all scales and none were approaching abnormal levels. At this time it is concluded that the SCI may not be a particularly useful measure in identifying the potential cognitive mechanism of collecting in an offender sample.

The emotions generated in the process between collector and the collectible seemed to differ between postcard image collectors (Study 1) and IIOC accumulators (Study 2). Image collectors seemed to develop a sense of adoration toward the image and possibly induced a sense of love between the image collector and their images. IIOC offenders however did not exhibit this loving attachment, rather they seemed to use the images to avoid or remove shame and anxiety (Quayle, Vaughan & Taylor, 2005). The differing emotional responses between the two groups are also reflected in the cognitive strategies used to justify continuing with their collecting behaviour. Image collectors seemed to humanise the individuals and

image content by romanticising about them, showing empathy, relating in a positive personal way to the circumstances depicted and in doing so made the image more rewarding and thus collectible. IIOC accumulators tended to dehumanise the children in the images and minimise any indication that the child was harmed in making the image, and this resulted in the children being seen by the IIOC offender as unaffected or enjoying the abuse, which then justified use of the image for sexual gratification and further pursuit of IIOC. IIOC offenders' use of offence specific cognitive distortions to overcome internal inhibitors has been highlighted previously by Sheldon & Howitt (2007) and Prat & Jonas (2013), and Study two confirms these prior findings. Differences in these cognitive-emotional strategies to justify possession of the images and continued acquisition are an area for further study. The idea of the removal of shame and guilt is also worthy of further study, in particular to clarify this initial hypothesis noted above and also to understand possible emotional projection into the image.

Image-specific and collection motivators

Study three examined the importance of image-specific motivators for IIOC offending, which included the importance of (1) completing sets or series of images, (2) image rareness, (3) what was happening in the picture, (4) type of children in the image, (5) personal meaning of the image, (6) getting as many images as possible, and (7) getting as many different images as possible These image-specific motivators may not be mutually exclusive, so more than one may be involved in motivating an IIOC offenders' behaviour.

In study one some image collectors revealed potential image-specific motivators such as those linked to life experiences and this was also evident in some of the narratives of IIOC offenders in study two. Study three examined IIOC offenders' views about image-specific motivators and overall these were not rated as particularly important. Closer analysis revealed that there were statistically significant differences between the Collecting and Non-Collecting groups, with the former strongly identifying with a range of image-specific motivators, in particular the type of children in the image (56%), what was happening in the image (39%) and getting as many images as possible (50%). The Non-Collecting group's lack of interest in the image-specific motivators, may suggest there could be other motives driving these IIOC offenders not assessed by this survey, such as the IIOC is not a primary interest but a prop to contact offences or a stimulus to make fantasy more real.

An idea commented upon in normative collecting and IIOC research is the notion of the importance of completeness, typically in terms of sets and series in normative collecting (Belk, 1995; Carey, 2008; Pearce, 1998; O'Donnell & Milner, 2007). A minority (14%) of IIOC offenders in study three rated pursuit of items because they were part of set or series as important, and although it was alluded to by some collectors and IIOC offenders there was a general lack of interest in set completion. This finding confirms prior findings from collector studies (Nordsletten & Mataix-Cols, 2012; Pearce, 2008), but contradicts results from IIOC studies (Taylor et al., 1999; Sheldon & Howitt, 2007; Taylor & Quayle, 2003). What completeness or set completion means to the collector requires more direct study, particularly as marketing and consumerism research (Belk, 1995; Danziger, 2004) suggest marketers may manipulate the desire for objects by imposing externally observable markers, such as a set. Studies one and two also implicate goal setting and attainment, with the need for a particular collectible to complete a personally set ideal or goal. The notion of searching for 'an ideal', and what this means psychologically to an image collector and IIOC offender, and how it changes over time may be as useful area of future study.

In summary commercial gain was not an important contributing factor within the narrative of either the image collectors or IIOC offenders in studies one and two. Nor was it found as important motivator for either the Collecting group or Non-Collecting group within study three. Gaining sexual satisfaction was especially important to the Collecting group in study three but not all IIOC offenders reported sexual usage of images. Social involvement was seen as important within the narrative of image collectors in study one and IIOC accumulators in study two and three, however social networking was not as pervasive in IIOC offenders as image collectors. As noted previously mental disorder did not appear to present for the vast majority of IIOC offenders sampled, although a tiny minority may have collecting related mental health conditions. There also seems to be an emotional function involved in both image collecting and IIOC accumulating, but they seem to be in opposition to one another. Image collectors in study one seemed to build emotions of devotion and love for their image whereas IIOC accumulators in study two tried to negate negative emotions of shame and guilt that would stop them enjoying their abusive activities. Image-specific motivators as a driving force for acquisition and building IIOC accumulation were not evident for the vast majority of IIOC offenders. Study three found that image-specific motivators were more important for only the IIOC Collecting group and the IIOC Non-Collecting group may be driven to acquire IIOC by factors not examined in this study.

Although set completion and rareness have been considered important for collectors, this was not dwelt upon by the participants in the three studies.

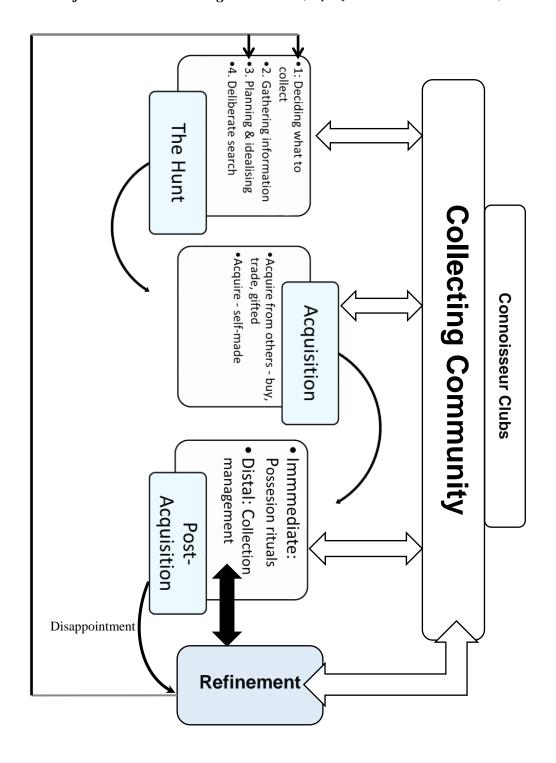
Process of Collecting

The collecting process refers to how the person goes about collecting, and the studies in this thesis confirmed the evolving nature of collecting behaviour (Carey, 2008; Chung et al., 2008; Dittmar, 1991; McIntosh & Schmeichel, 2004; Pearce, 1993; 1998), as well as an evolving process in terms of the collectibles desired, the collection and the individual collector.

McIntosh and Schmeichel (2004) described an evolving collecting process using an eight step model. Study three revealed that contrary to McIntosh and Schmeichel's (2004) original conceptualisation individuals may not go through the steps sequentially and all studies imply individual differences in the time taken to move between steps. How the individual engages in the collecting process, e.g. how quickly they move into deliberately hunting by targeting specific websites containing IIOC, may reveal important information about the individual's personal preferences, a priori knowledge and collecting experience. For instance, this study found that the Collecting sub-group appeared to have clear ideas about what they wanted to collect evident from initiation where they deliberately search of IIOC and went on to identify and use specific sites which allowed direct access to IIOC. Preliminary findings and inferences from the three studies suggest that experienced image collectors often start a collecting cycle at stage three or move rapidly through the first four stages of McIntosh and Schmeichel's collecting model as they know what they want. Study one suggested that there are some collectors who rate certain aspects of the collecting cycle as more important, and study three revealed two individuals who were only interested in the hunt process or a postacquisition process. This poses an interesting question in regards to IIOC offenders in terms of who may be more risky and difficult to treat, those offenders who rate all aspects of the collecting cycle as important, those that rate no interest in collecting or those offenders with very specialist collecting interests e.g. the hunt or possession rituals. Glasgow (2010) proposes that level of involvement in IIOC behaviours and processes is a better indicator of risk than number of images possessed, which suggests the Collecting group may be more risky.

The acquisition, swapping/trading and making/producing images, appeared to reflect the way participants in the current studies and in prior research obtained collectibles and IIOC (Nordsletten et al., 2013; Sheldon & Howitt, 2007). The post-acquisition phase is newly conceptualised as involving immediate and distal possession rituals. Immediate possession rituals relate to manipulation and use of the acquired object at the earliest opportunity as defined by the collector, and could include cleaning, displaying, lavishing attention, fantasizing about the object and for IIOC offenders using for sexual stimulation (Beech et al., 2008; Danet & Katriel, 1989; Taylor & Quayle, 2003). Danet and Katriel (1989) found in their sample of adult and child collectors that immediate possession rituals maybe linked to "exerting control over the desired object ... an increase feelings of control and mastery" (p. 271). Immediate possession rituals were noted in studies one and three, but were not discussed in study two and this may reflect insufficient direct interview questions to prompt detailed discussion. Immediate possession rituals would be an interesting area of future studies, as operant conditioning would suggest that these behaviours are likely to be important in strengthening the collecting behaviour. The studies in this thesis suggest that it is important to keep an open mind as to the nature of the immediate possession rituals, as sexual gratification was not important to all IIOC offenders.

Figure 4: A Model of Normative Collecting Behaviour (adapted from McIntosh & Schmeichel 2004)



McIntosh and Schmeichel (2004) refer to display and cataloguing in Stage 7 of their original model and this is now conceptualised as distal factors linked to collection management. Collection management is thought to include a broad range of post-acquisition behaviours based on findings from the current studies, prior research and behavioural typologies (Krone, 2004; Lanning, 1992; Nordsletten et al., 2013). The four broad areas of

collection management suggested by Johnson (2014) seem to capture the range of activities engaged in by image collectors and IIOC offenders:-

- Collection Development involves acquisition of new objects, and disposal, swapping or transferring of existing objects;
- Collection Care refers to protection, conservation and security/concealment of existing objects in the collection;
- Collection Information relates to archiving, cataloguing and if relevant digitisation to ensure a permanent and accessible record of the collection;
- Collection Access is the rights of use, evidence of ownership and in general appropriate governance of the collectibles and the collection.

Collection management practices of the private collector, legal or illegal, has rarely been considered and not in the depth suggested above. In terms of the current studies and existing IIOC offender research the focus has been on disposal, trading and swapping of existing objects and organisation of collections (McCarthy, 2010; McManus et al., 2015; Wolak et al., 2013). Study three revealed that about 18% of the IIOC sample organised their collection, and the post-acquisition behaviour was more important for some of the Collecting group (28%) as opposed to the Non-Collecting (7%). Studies one and two both revealed individuals who valued this post-acquisition and collection management process, and one individual in study three only found organisation and cataloguing as important. In terms of McIntosh and Schmeichel's model it seems that Stage 7 may be a point which some collectors spend a considerable amount of time but for others it may be a file and forget as some go straight back to searching/hunting new images (Bell & Gemmell 2007).

Stage 8 in McIntosh and Schmeichel's (2004) model refers to a return to the beginning of the collecting process, however it appears from the findings in study one and two that there may be a refinement and honing process which occurs before re-engaging in the collecting process. A managed collection is thought to support this refinement process, with study one revealing that it helped referencing, retrieval of objects, built knowledge about the available types of collectibles and created awareness of overlaps, completeness and gaps in the current collection. This process of refinement emerged from the studies and theoretical ideas explored in this thesis, and it may be an area for further exploration particularly in terms of how it may influence the nature of the collectible, collection and the collector's characteristics, i.e. it may be reflective of expertise, high status in the collector community,

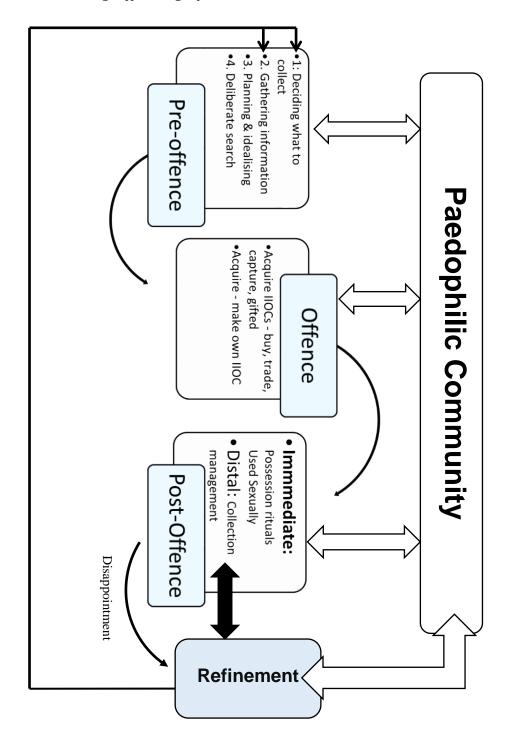
desires to be the 'best' or capture the IIOC offender's personal journey in regards to child sexual offending.

Social relationships and opportunities to display, share or talk about one's collectibles and collections with like-minded others seems highly important to normative collectors (Belk, 1995; Belk & Wallendorf, 1994; McIntosh & Schmeichel, 2004; Nordsletten et al., 2013; Pearce, 1994; 1998). Collector communities appear to provide the opportunities for social hierarchies to form, to develop expertise and acquire, swap, discard and sell collectibles (Carey, 2008). Like Carey's assertions about normative collectors, Taylor and Quayle's (2003) "Problematic Use of the Internet" model suggests that social contact with like-minded others appears to serve multiple functions which maintain and perpetuate the cycle of collecting-offending involving IIOC. Paedophilic social communities built around IIOC are thought to encourage knowledge building, increased social status, advance technical and searching skills, validate offending behaviour as normal and non-harmful, as well as enabling offending behaviour linked to distribution, production, possession and selling (Carr et al., 2004; Calder, 2004; CEOP, 2012; Ford & Patterson, 1998; McGuire and Dowling, 2013; Taylor and Quayle, 2003; Wolak et al., 2013). Similar ideas have been suggested in the normative collecting literature, in which involvement with collecting communities and connoisseur clubs permitted social interaction and relationships with like-minded others which were thought to support knowledge building of the collectible(s), define parameters about what is available which in turn supports collection development and refinement (Belk, 1994; Johnson, 2014; McIntosh & Schmeichel, 2004; Nordsletten et al., 2013; Strone, 2010).

Figure 5 reflects an adaption of the new model of normative collecting behaviour discussed above and depicted in Figure 4. The gathering and accumulating process of IIOC offenders who may engage in collecting behaviours has been conceptualised within this paper using a new collecting-offending cycle which combines the three aspects of an offence cycle (pre-offence, offence and post-offence behaviours) with a parsimonious version of McIntosh and Schmeichel's collecting model. A new collecting-offending model is depicted in Figure 5, two major differences between this offence model and normative collecting model in figure 4, are the inclusion of sexual use of the image and collecting community is referred to as Paedophilic community. The paedophilic community is thought to involve others interested in indecent of images of children, and serves a similar function to the collector community

discussed above. Whether there is a hierarchy within the Paedophilic Community, as previously noted amongst normative collectors, is currently unknown.

Figure 5: IIOC Collecting-Offending Cycle



Final Remarks

This thesis produced a new collecting frame and a testable model of both collecting behaviour and perhaps IIOC offending-collecting behaviour. A group of IIOC offenders with an interest in collecting have been identified, however this Collecting group did not seem to be significantly different from the Non-Collecting group in terms of nature of what was gathered and accumulated. There were however differences in regard to the function of IIOC and the Collecting group were more actively involved in IIOC offending and associated communities. The qualitative studies identified possible between group similarities in terms of collecting process, and notable differences in the emotional processing strategies and level reciprocity between the owner and those depicted within the image. A small proportion of IIOC offenders may perhaps have collecting related mental health issues, such as hoarding disorder and/or Asperger's Syndrome.

Limitations and Future Studies

Both sample sizes for studies one and two were appropriate for IPA analysis. However, the participants in both studies were a male volunteer sample and may not be representative of all males involved in image collecting or male offenders involved in the accumulation of IIOC. Hoarding related, or other collecting related disorders, such, as Asperger's Syndrome were not accessed before interviews for studies one and two were carried out which may have an effect on the interpretation of the interview narrative. Furthermore, offender treatment history for possessing IIOC in study two was not made available and having or not having had treatment may potentially have had an impact on how IIOC accumulators responded during interview.

Study three was quantitative and the sample for this study was a small volunteer sample. The use of a small volunteer sample within study three has implications concerning how representative they were, of overall IIOC offenders as well as resulting in findings that may not be generalizable. Furthermore, within study 3 the psychometric hoarding and hoarding cognition measures (SI-R and SCI) had to be adapted to suit an IIOC prison sample resulting in retrospective recall rather than contemporary accounts concerning hoarding issues and may have effects on the measurement results. However all adaptions to measures were carried out only after the authors of the measurements gave consent. It is clear that future research need to take these limitations into account before commencing further study in this area.

Methodological issues may also pose problems. This thesis utilised a mixed method approach to collecting and analysing the data. The researcher needs to be aware that there are paradigmatic issues involved in using quantitative and qualitative methods in one study and how these paradigms are mixed will have implications for analysis and interpretation of results. Furthermore data collection and analysis not only means having an understanding of both methods but that overall the processes involved may take a long time and may be restrictive in certain circumstances, such as, time limitations.

White male participants were the focus in this thesis due to convenience, the lack of female IIOC offenders and the desire to avoid introducing a confounding variable associated with gender differences in collecting (Martin 1999). Future research needs to expand the sampling frame. Empirical studies within normative collecting have failed to identify ethnic involvement and this may need to be addressed also. The dynamic nature of the collection and collector in terms of refinement, patterns in collectible usage, changes in collection/sub-collections overtime and the nature of secondary collections have been neglected within collecting and IIOC research. Further, research examining refinement and collecting behaviour in general may have implications for judicial understanding of IIOC related crimes as well as inform further considerations associated with assessment and treatment.

References

- Aiken, M., Moran, M., & Berry, M. J. (2011). Child abuse material and the Internet: Cyber-psychology of online child related sex offending. Retrieved from https://www.interpol.int/content/download/12909/88921/version/2/file/Child_abuse_Interpol_conference_paper.pdf
- Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "Red Flags" for autism screening: The short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child and Adolescent Psychiatry*, 51(2), 202-212.
- Ameen, K. (2005). Developments in the philosophy of collection management: a historical review. *Collection Building*, 24(4), 112–116.
- Anderson, R. (1985). The museum curator as an endangered species. In N. Cossons (Eds.), *The Management of Change in Museums*, (27-9). London: National Maritime Museum.
- American Psychological Association. (2010). Hypersexual disorder. DSM-5 development. Retrieved from http://www.dsm5.org/ProposedRevisions/Pages/proposedrevision.aspx?rid=415
- Armstrong, J. A. E. (2009). Internet child pornography: An examination of attachment and intimacy deficits, (Unpublished doctoral dissertation). Deakin University, Melbourne, Australia.
- Aslan, D., & Edelmann, R. (2014). Demographic and offence characteristics: A comparison of sex offenders convicted of possessing indecent images of children: Committing contact offences or both offences. *Journal of Forensic Psychiatry and Psychology*, 25(2), 121-134.
- Atkins v DPP and latterly the case of R. v. Porter (Ross Warwick) [2006] 2 Cr.App.R. 25, CA
- Ayers, C. R., Saxena, S., Golshan, S., & Wetherell, J. L. (2010) Age at onset and clinical features of late life compulsive hoarding. *International Journal of Geriatric Psychiatry*, 25(2), 142–149.
- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment*, 23, 92-123.
- Babchishin, K. M., Hanson, R. K., & Van-Zuylen, H. (2015). Online child pornography offenders are different: A meta-analysis of the characteristics of online and offline sex offenders against children. *Archives of Sexual Behavior*, 44, 45-66.

- Bissias, G., Levine, B., Liberatore, M., Lynn, B., Moore, J., Wallach, H., & Wolak, J. (2016). Characterization of contact offenders and child exploitation material trafficking on five peer-to-peer networks. *Child Abuse & Neglect*, 52, 185-199.
- Baron-Cohen, S., Wheelwright, S., Skinner, R., Martin, J., & Clubley, C. (2001) "The autism-spectrum quotient (AQ): evidence from Asperger syndrome/high-functioning autism, males and females, scientists and mathematicians. *Journal of Autism and Developmental Disorders*. 31(1), 5–17.
- Bates, A., & Metcalf, C. (2007). A psychometric comparison of internet and non-internet sex offenders from a community treatment sample. *Journal of Sexual Aggression*, 13, 11–20.
- Beech, R. B., Elliott, I. A., Birgden, A., & Findlater, D. (2008). The internet and child sexual offending: A Criminological review. *Aggression and Violent Behavior*, 13, 216-228.
- Belk, R.W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12, 265-280.
- Belk, R. W. (1988). Possessions and the extended self. Journal of Consumer Research, 15, 139-168.
- Belk, R.W., Wallendorf, M., Sherry, Jr, J.F., Holbrook, M. B., & Roberts, S. (1988). Collectors and collections.In: M. Houston (Ed.), Advances in consumer research (pp. 548-553). Provo, UT: Association for Consumer Research.
- Belk, R.W., Wallendorf, M., Sherry, J. F., and Holbrook, M. B. (1991). Collecting in a consumer culture. In R.W. Belk, & M. Wallendorf (Eds.), Highways and buy ways: Naturalistic research from The Consumer Odyssey. Provo: Association for Consumer Research.
- Belk, R.W, & Wallendorf, M. (1994). *Of mice and men: Gender identity and collecting*. In S, Pearce. (Eds.), *Interpreting objects and collections*. London: Routledge.
- Belk, R.W. (1995). Collecting in a consumer society. London: Routledge.
- Bell, G., & Gemmell, J. (2007). A digital life. Scientific American Magazine. 296(3), 58-65.
- Betzner, A. (2008). *Pragmatic and dialectic mixed method approaches: An empirical comparison* (Unpublished doctoral dissertation). University of Minnesota, Minneapolis.
- Bourke, M., & Hernandez, A. (2009). The "Butner Study" redux: A report of the incidence of hands-on child victimization by child pornography offenders. *Journal of Family Violence*. 24, 183-191.

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101.
- Bryce, J. (2010). *Online sexual exploitation of children and young people*. In Y, Jewkes, & M, Yar (Eds.), *Handbook of Internet Crime*, (320–342). Culhompton: Willan Publishing.
- Burke, T. (1900). The street trading children of Liverpool. *Contemporary Review*, 78, 726.
- Calder, M. (2004). *Child sexual abuse and the internet: Tackling the new frontier*. Lyme Regis, UK: Russell House Publishing Ltd.
- Carey, C. (2008). Modelling collecting behaviour: The role of set completion. *Journal of Economic Psychology*, 29, 336–347.
- Carr, J. (2003). Child abuse, child pornography and the internet. London: NCH. R http://uploadi.safe.si/editor/1149589931pornographyreport.pdfetrieved from
- Carr, J. (2004). Child abuse, child pornography and the internet: Executive summary.UK: NCH. Retrieved from http://uploadi.safe.si/editor/1149589931pornographyreport.pdfetrieved from
- Carr, J. (2004) Internet traders of child pornography and other censorship offenders in New Zealand. Retrieved from: http://www.dia.govt.nz/Pubforms.nsf/URL/entirereport.pdf/\$file/entirereport.pdf
- Carr, J., & Hilton, Z. (2009) Child protection and self- regulation in the internet industry: U.K. experience. *Children and Society*, 23(4), 303-308.
- Case, D. O. (2009). Serial collecting as leisure and coin collecting in particular. Library Trends, 57(4), 729 -735.
- Child Exploitation and Online Protection Centre. (2012a). A picture of abuse. *London: CEOP*. Retrieved from ttps://www.ceop.police.uk/Documents/ceopdocs/CEOP%20IIOCTA%20Executive%20Summary.pdf
- Child Exploitation and Online Protection Centre. (2013). Threat assessment of child sexual exploitation and abuse. Retrieved from http://ceop.police.uk/Documents/ceopdocs/CEOP_TACSEA2013_240613%20FINAL.p DF>. 752.
- Chung, E., Beverland, M, B., Farrelly, F., & Quester, P. (2008). Exploring consumer fanaticism: Devotion in the consumption context. *Advances in Consumer Research*, 35.
- Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of Mixed Methods Research*, 2(3), 270–283.

Cipriani, G., Lucetti, C., Vedovello, M., & Nuti, A. (2012). Diogenes syndrome in patients suffering from dementia dialogues. *Clinical Neuroscience*, 14 (4), 455-460.

Collecting. (n.d.)In Free dictionary online. Retrieved from, http://www.thefreedictionary.com/collection

Collection (n.d.) In Oxford dictionary online. Retrieved from;

http://oxforddictionaries.com/view/entry/m_en_gb0162610#m_en_gb0162610 definition collection.

Collection. (n.d.). In Wordnetweb, online. Retrieved from, wordnetweb.princeton.edu/Perl/webwn

Coolican, H. (2014). Research methods and statistics in psychology. New York: Psychological Press.

Coroners and Justice Act. (2009).

Creswell, J. W. (2015). A Concise introduction to mixed methods research. Los Angeles: Sage Publications.

Creswell, J.W. (2014). Qualitative, quantitative and mixed methods approached. Washington: Sage.

Creswell, J. W., & Plano Clark. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2003). Research design: qualitative, quantitative, and mixed methods approaches, London: Sage.

Criminal justice and public order act. (1994).

Criminal Justice Act (1988.) S160 (1,2A & 3)

Criminal Justice and Immigration Act. (2008).

Danet, B., & Katriel, T. (1989). No two alike: The aesthetics of collecting. Play and Culture, 2, 253-277

Danet, B., & Katriel, T. (1994). Glorious obsessions, passionate lovers and hidden treasures: collecting, metaphor and romantic ethic. In S. H. Riggens (Eds.), the socialness of things: Essays on the sociosemiotics of objects. (23-61). Berlin: Mouton De Gruyter.

Dannefer, D. (1980). Rationality and passion in private experience: Modern consciousness and the social world of old-car collectors. *Social Problems*, 27, 392-412.

- Dannefer, D. (1981). Neither socialization nor recruitment: The avocational careers of old car enthusiasts. *Social Forces*, 60, 395-413.
- Danziger, P. (2004). Why people buy things they don't need: understanding and predicting consumer behaviour. Dearborne: Trade Publishing.
- .Davidson, J. (2007). Current Practice and Research into Internet Sex Offending. *Risk Management Authority Research*.
- Delmonico, D.L., & Griffin, E.J. (2011). Sex offenders online: What clinicians need to know. In B. Schwartz, (Eds.), Handbook of sex offender treatment, (1-25), Kingston NJ. Civic Research Institute.
- Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2010).
- Dittmar, H. (1991). *The social psychology of material possessions: To have is to be.* New York: Harvester Wheatsheaf, St. Martin's Press.
- Dondu, A., Sevincoka, L., Akyol, & Tataroglu, L. (2015). Is obsessive symptomatology a risk factor for alzheimers-type dementia. *Psychiatric Research*, 225, 155-160.
- Durkin, K. F. (1997). Misuse of the internet by paedophiles: Implications for law enforcement and probation practice. *Federal Probation*, 61, 14-18.
- Durost, W. (1932). *Children's collecting activity related to social factors*. New York: Bureau of Publications Teachers College, Columbia University.
- Eisen, J. L., Coles, M. E., Shea, M.T., Pagano, M.E., Stout, R.L. & Yen, S. (2006). Clarifying the convergence between obsessive compulsive personality disorder criteria and obsessive compulsive disorder. *Journal of Personality Disorders*, 20, 294–305.
- Elliott, I. A., & Beech, A. R. (2009). Understanding online child pornography use: Applying sexual offense theory to internet offenders. *Aggression & Violent Behaviour*, 14, 180–193.
- Elliott, I. A., Beech, A. R., & Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of internet sex offenders: Comparisons with contact sexual offenders. *Sexual Abuse*: A *Journal or Research and Treatment*, 21, 76-92.
- Elliott, I., Beech, A. R., & Mandeville-Norden, R. (2012). The psychological profile of internet contact and mixed internet/contact sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, 25(1).

- Elsner, J., & Cardinal, R. (Eds.). (1994). The cultures of collecting. London: Reaktion Books Ltd.
- Fanatic. (n.d.). The free dictionary online. Retrieved from, http://www.thefreedictionary.com/fanaticism.
- Faust, E., Bickard, W., Renaud, C. and Camp, S. (2015). Child pornographers, possessors and contact sex offenders: A multilevel comparison of demographic characteristics and rates of recidivism. *Sexual Abuse, A journal of Research and Treatment*, 27(5), 460-478.
- Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4, 6-16.
- Fellows and Arnold [1997] 1 Cr App R 244.
- Ferraro, M. M., and Casey, C. (2005). *Investigating child exploitation and pornography: The internet, the law and forensic science*. London: Elsevier Academic Press.
- Ferster, C. B., & Skinner, B. F. (1957). Schedules of reinforcement. New York: Appleton-Century-Crofts.
- Finkelhor, D. (1984). Child sexual abuse: New theory and research. New York: The Free Press.
- Fisher, H. E. (1997). Lust, attraction and attachment in mammalian reproduction. Human Nature, 9(1), 23-52.
- Florczak, K. (2014.) Purist need not apply. Nursing Science Quarterly. 27(4), 278-282.
- Fontenelle, I. S., Prazeres, A. M., Borges, M. C., Range, B. P., Versiani, M. and Fontenelle, L.T. (2010). The Brazilian, Portuguese version of the Saving Inventory Revised: Internal consistency, test retest reliability, and validity of a questionnaire to assess hoarding. *Psychological Reports*, 106, 279-296.
- Formanek, R. (1991). Why they collect: Collectors reveal their motivations. In F. W. Rudmin (Eds.), To Have Possessions: A handbook on ownership and property. *Journal of Social Behaviour and Personality*, 6, 275-286.
- Frost, R. O., Steketee, G., & Greene, K, A, I. (2003). Interventions for compulsive hoarding. *Journal of Brief Treatment and Crisis Intervention*, 25, 323–337.
- Frost, R. O., Steketee, G. (2014). *The Oxford handbook of hoarding and acquiring*. Oxford: Oxford University Press.
- Frost, R. O., Steketee, G., & Grisham, J. (2004). Measurement of compulsive hoarding: Saving Inventory-Revised. *Behaviour Research and Therapy*, 42, 1163–1182.

- Frost, R. O., Kim, H. J., Morris, C., Bloss, C., Murray-Close, M. & Steketee, G. (1998). Hoarding, compulsive buying and reasons for saving. *Behaviour Research and Therapy*, 36, 657–664.
- Frost, R. O., & Hartl, T. L. (1996). A cognitive-behavioral model of compulsive hoarding. *Behaviour. Research* and Therapy, 34, 341–350.
- Frost, R. O., Rosenfield, E., Steketee, G. and Tolin, D. F. (2013). An Examination of Excessive Acquisition in Hoarding Disorder. *Journal of Obsessive Compulsive and Related Disorders*, 2, 338-345.
- Gannon, T. A., & Cortoni, F. (2010). Female sexual offenders: Theory, assessment, and treatment. Chichester, UK: Wiley-Blackwell.
- Gelber, S. M. (1992). Free market metaphor: The historical dynamics of stamp collecting. *Comparative Studies in Society and History*, 34, 742-769.
- Gillespie, A. A. (2008). Child exploitation and communication technologies. Dorset: Russell House.
- Glasgow, D. (2010). The potential of digital evidence to contribute to risk assessment of internet offenders. *Journal of Sexual Aggression*, 16(1), 87–106.
- Greaves, N., Prince, E., Evans, D, W. & Charman, T. (2006). Repetitive and ritualistic behaviour in children with Prader–Willi syndrome and children with autism. *Journal of Intellectual Disability Research*, 92–100.
- Griffiths, M.D. (2000). Excessive internet use: Implications for sexual behavior. *Cyber Psychology and Behavior*, 3, 537-552.
- Griffiths, M. D. (2000a). Does internet and computer 'addiction' exist? Some case study evidence. *Cyber Psychology & Behavior*, 3, 211-8.
- Griffith, M.D. (2012). Internet sex addiction: A review of the empirical research. *Addiction Research and Theory*, 20, (2), 111-124.
- Goldstein, S. L. (1999). The sexual exploitation of children; A practical guide to assessment, investigation and intervention. Boca Raton FA, CRC Press.
- Hall, R. F. (2013). Mixed methods: In search of a paradigm. In T, Le & Q, Le (Eds.), Conducting research in a changing and challenging world. New York: Nova Science Publishers.

- Harvey, B. (2009) Psychology of collecting. Retrieved from, http://www.home-http://www.home-museum.com/howto/HowToArts/Psychology/psychology.htm
- Hartman, C. R., Burgess, A. W., & Lanning, K. V. (1984). *Typology of Collectors*. In A. W. Burgess & M. L. Clark (Eds.), *Child Pornography and Sex Rings* (69-110). Lanham, MA: Lexington Books.
- Haskins, B, G., & Silva, J. A. (2006). Asperger's disorder and criminal behavior: Forensic-psychiatric considerations. *Journal of American Academy of Psychiatry Law*, 34.3: 374-84.
- Hassan, E. (2005). Recall bias can be a threat to retrospective and prospective research designs. *The Internet Journal of Epidemiology*, 3,399-412.
- Healy, M. (1997). Child pornography: An international perspective. World Congress Against commercial Sexual Exploitation of Children. Retrieved from, http://www.csecworldcongress.org/PDF/en/Stockholm/background_reading/Theme_papers/Theme% 20paper% 20Pornography% 201996_EN.pdf.
- Henshaw, M., Ogloff, J.R. P., & Clough, A. (2015). Looking beyond the screen; A critical review of the literature on the online pornography offender. *A Journal of Research and Treatment*, 1, 30-50.
- Hermann, F. (1999). The English as Collectors: A documentary Chrestomathy. London: Chatto & Windus.
- Her Majesty's Inspectorate of Constabulary (HMIC), (2012). *The crime scene: A review of police crime and incident reports*. Retrieved from, http://www.hmic.gov.uk/media/review-police-crime-incident-reports-20120125.pdf.
- Hernandez, A. E. (2000). Self-reported contact sexual offenses by participants in the Federal Bureau of Prisons' Sex Offender Treatment Program: Implications for internet sex offenders. Retrieved fromhttps://ccoso.org/sites/default/files/import/Hernandez-et-al-ATSA-2000.pdf
- Home Office, (2010). *Child Exploitation and Online Protection Centre: The way forward*. London: Her majesty's Stationery Office.
- Howitt, D., & Sheldon, K. (2007). The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared. *Psychology, Crime, & Law*, 13, 469-486.
- Huang, L. S., Chiou, Y. H., & Chang, C. C. (2008). The effects of collecting motives on the processes of collecting convenience store gifts in Taiwan. *Cyberpsychology and Behavior*, 11, 351.

- Huntley, S.S. (2013). Russian legislation on the protection of children against sexual abuse and sexual exploitation: a Review. *International Crime Centre for Missing and Exploited Children*. Retrieved from, http://www.icmec.org/wp-content/uploads/2015/10/Russian_Legislation_on_Protection_of_Children_Against_Sexual_Abuse_and_Exploitation_FINAL.pdf
- International Centre for Missing & Exploited Children. (2010). Child pornography: Model legislation & global review, 6th ed. Alexandria, VA: *International Centre for Missing & Exploited Children*. Retrieved from: www.icmec.org/en_X1/icmec_publications/English__6th_Edition_FINAL_.pdf.
- Internet Watch Foundation (2012) Annual report. Retrieved from, https://www.iwf.org.uk/assets/media/annualreports/FINAL%20webfriendly%20IWF%202012%20Annual%20and%20Charity%20Report.pdf>.
- Johnson, P. (2014). Fundamentals of collection development and management. Chicago, IL: The American Library Association.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112–133.
- Jones, S., & Fox, S. (2009). Generations Online in 2009. Pew Internet & American Life Project.
- Jung, S., Ennis, L., Stein, S., Choy, A., & Hook, T. (2012). Child pornography possessors: Comparisons and contrasts with contact and non-contact sex offenders. *Journal of Sexual Aggression*, 19, 295-310.
- Kirwan, G. & Power, A. (2012). The Psychology of Cyber Crime. Hershey: IGI Global.
- Klain, E., Davies, H., & Hicks, M. (2001). Child pornography: The criminal-justice-system response. National Center for missing and exploited children. Retrieved from, http://www.missingkids.com/download/NC81.pdf.
- Krone, T. (2004). A Typology of online child pornography offending. *Trends & Issues in Crime and Criminal Justice*, 279. Canberra: Australian Institute of Criminology.
- Lanning, K. V. (1992). Child Molesters: A Behavioral analysis. Report no. NC-70. Washington, DC: National Center for Missing and Exploited Children. Retrieved from, http://www.missingkids.com/en_US/publications/NC70.pdf.
- Lanning, K. V. (1998) Cyber pedophiles: A behavioral perspective. The APSAC Advisor, 11(1), 2-8.

- Lanning, K.V. (2010). Child Molesters: A behavioral analysis. (5th Edn.). Washington, DC: National Center for missing & Exploited Children
- .Lee, A. F., Li, N. C., Lamade, R., Schuler, A., & Prentky, R. A. (2012). Predicting hands-on child sexual offenses among possessors of Internet child pornography. *Psychology, Public Policy, and Law*, 18, 644-672.
- Long, M. M., & Schiffman, L. G. (1997). Swatch fever: An allegory for understanding the paradox of collecting. *Psychology and Marketing*, 14, 495–509.
- Long, M. L., Alison, L. A., & McManus, M. A. (2013). Child pornography and likelihood of contact abuse: A comparison between contact child sexual offenders and noncontact offenders. *Sexual Abuse: A Journal of Research and Treatment*, 25, 370-395.
- Mahoney, M. (2009). Asperger's Syndrome and the criminal law: The special case of child pornography. Retrieved from, http://www.harringtonmahoney.com/
- Magaletta, P. R., Faust, E., Bickart, W., & McLearen, A. M. (2014). Exploring clinical and personality characteristics of adult male Internet-only child pornography offenders. *International Journal of Offender Therapy and Comparative Criminology*, 58, 137-153.
- Malina, M, A., Nørreklit, H, S, O., & Selto, F, H. (2011). "Lessons learned: advantages and disadvantages of mixed method research", *Qualitative Research in Accounting & Management*, 8(1), 59 71.
- Marshall, L. E., O'Brien, M. D., Marshall, W. L., Booth, B. & Davis, A. (2012). Obsessive- Compulsive Disorder, social phobia and loneliness in incarcerated Internet child pornography offenders. *Sexual Addiction and Compulsivity*, 19 (1/2), 41-52.
- Martin, P. (1999). *Popular collecting and the everyday self: The reinvention of museums*. London: Leicester University Press.
- Mataix-Cols D., Pertusa, A., Snowdon, J. (2011). Neuropsychological and neural correlates of hoarding: A practice-friendly review. Journal of Clinical Psychology, 67, 467–476.
- Mayoh, J., & Onwuegbuzie, A. (2013). Towards a conceptualization of mixed methods phenomenological research. *Journal of Mixed Methods Research*, 9(1), 91-107.
- McCarthy, J. A. (2010). Internet sexual activity: A comparison between contact and noncontact child pornography offenders. *Journal of Sexual Aggression*, 16, 181-195.

- .Merdian, H. L. (2012). Offenders who use child sexual exploitation material: Development of an integrated model for classification, assessment, and treatment. Unpublished doctoral dissertation, The University of Waikato, New Zealand
- McGreevy, A., (1990). Treasures of children: Collections then and now, or treasures of children revisited. *Early Child Development and Care*, 63, 33-36.
- McGuire, M. and Dowling, S. (2013). Cyber Crime: A Review of the Evidence. *Home Office Research Report* 75. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248621/horr75-chap2.pdf
- McManus, M.A., Long, M.L., Alison, L., & Almond, L. (2015). Factors associated with contact child sexual abuse in a sample of indecent image offenders, *Journal of Sexual Aggression*, 21(3), 368-384.
- McManus, M. A., & Almond, L. (2014). Trends of indecent images of children and child sexual offences between 2005/2006 and 2012/2013 within the United Kingdom. *Journal of Sexual Aggression*, 20, 142-155.
- McNally, A. (2010). An exploratory analysis of digital 'megpies' and validation of the new digital saving inventory Using a University Sample. (Unpublished Dissertation). Nottingham Trent University.
- McPherson (2012) Assessing internet Sex offenders. Retrieved from, http://www.journalonline.co.uk/Magazine/57-7/1011392.aspx
- Melli, G., Chiorri, C., Smurra, R., & Frost, R.O. (2013). Psychometric properties of the paper-and-pencil and online versions of the Italian Saving Inventory—Revised in Nonclinical Samples. *International Journal of Cognitive Therapy*, 6(1), 40-56.
- Mohammedzadeh, A. (2009). Validation of the Saving Inventory Revised (SI-R): Compulsive hoarding measure. *Iranian Journal of Psychiatry and Clinical Psychology*, 15, 13-41.
- Mossberger, K., Tolbert, C.J., & Gilbert, M. (2006). Race, place, and information technology. *Urban Affairs Review*, 41: 583–620.
- McIntosh, W, D., & Schmeichel, B. (2004). Collectors and collecting: A social psychological perspective. *Leisure Sciences*, 26(1), 85 -97.
- Mendez, M. F., & Shapira, J. S. (2008). The spectrum of recurrent thoughts and behaviors in front temporal dementia. *CNS Spectrums*, 13(3), 202–208.

- Middleton, D. (2008). From Research to practice: The development of the internet sex offender treatment programme (I-SOTP). *Irish Probation Journal*, 5, 49-64.
- Middleton, D., Elliott, I. A., Mandeville-Norden, R., & Beech, A. R. (2006). An investigation into the applicability of the Ward and Siegert pathways model of child sexual abuse with Internet offenders. *Psychology, Crime & Law*, 12, 589-603
- Middleton, D., Mandeville-Norden, R. & Hayes, E. (2009). Does treatment work with Internet sex offenders? Emerging findings from the Internet Sex Offender Treatment Programme (I-SOTP). *Journal of Sexual Aggression*, 15, 5.
- Mueller, A., Mueller, U., Albert, P., Mertens, C., Silbermann, A., Mitchell, J.E., & de Zwaan, M. (2007). Hoarding in a compulsive buying sample. *Behaviour Research and Therapy*, 45, 2754–2763.
- Muensterberger, W. (1994). *Collecting, an Unruly Passion: Psychological Perspectives*. Princeton, NJ: Princeton University Press.
- Murrie, D. C., Warren, J. I., Kristiansson, M. and Dietz, P. E. (2002). Asperger's Syndrome in forensic settings. *International Journal of Forensic Mental Health*, 1 (1), 59-70.
- Nicholson, G. (2006). Sex collectors. New York: Simon and Shuster.
- Nordsletten, A. E., Fernández de la Cruz, L., Billotti, D. & Mataix-Cols, D. (2013). Finder's keepers: The features differentiating hoarding disorder from normative collecting. *Comprehensive Psychiatry*, 54, 229–237.
- Nordsletten, A. E. & Mataix-Cols, D. (2012). Hoarding versus collecting: Where does pathology diverge from play? *Clinical Psychology Review*, 32(3), 165–176.
- Obscene Publication Act (1959).
- O'Donnell, I., & Milner, C. (2007). *Child Pornography: Crime, Computers and Society*. Devon: Willan publishing.
- Office for National Statistics (ONS) (2015). Statistical bulletin: Internet users: 2015 Retrieved from http://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2015.
- Patton, M. Q. (1990), *Qualitative Evaluation and Research Methods* (2nd Edn). Newbury Park, CA: Sage Publications.

- Pearce, S. M. (1992). Museums, objects, and collections: A cultural study. Leicester: Leicester University Press.
- Pearce, S. M. (1993). *Contemporary Collecting in Britain Survey* (CCBS 1993). Cited in, S, Pearce. (1998). *Collecting in contemporary practice*. London: Sage.
- Pearce, S. M. (1994). Interpreting objects and collections. London: Routledge.
- Pearce, S. M. (1998). Collecting in contemporary practice. England: Sage Publications Limited.
- Pearce, S. M. (1999). On collecting: An investigation into collecting in the European tradition. London: Routledge.
- Pearce, S. M. (2010). The Collecting process and the founding of the Museum in the Sixteenth, Seventeenth and Eighteenth Centuries. In S. Peterson., M., Hagedorn-Saupe, T, Jyrkkiö, & A, Weij. (Eds.), Encouraging Collections Mobility. A Way Forward for Museums in Europe.
- Perrot, M., Benony, H., & Lopes, G. (2001). Les te'le'chargeurs d'images pe'dopornographiques: Un groupe clinique a' part? Poster presented at the meeting of Congre's International Francophone sur l'Agression Sexuelle, Montreaux, Suisse.
- Pertusa, A., Fullana, M.A., Singh, S., Alonso, P., Menchón, J.M. & Mataix-Cols, D. (2008). Compulsive hoarding: OCD symptom, distinct clinical syndrome, or both? *American Journal of Psychiatry*, 165, 1289–1298.
- Pietkiewicz, I., & Smith, J.A. (2014). A practical guide to using Interpretive Phenomenological Analysis in qualitative research psychology. *Psychological Journal*, 20(1), 7-14.
- Prat, S., & Jonas, C. (2013). Psychopathological characteristics of child pornographers and their victims: A Literature Review. *Medicine, Science & Law*, 53(6), 6-11.
- Protection of Children act (1978)
- Quayle, E. (2008). Online sex offending: Psychopathology and theory. In R. D. Laws, & W. T. O'Donohue (Eds.), Sexual deviance: Theory, assessment, and treatment (2nd Edn) (439-458). New York: Guilford Press
- Quayle, E., & Jones, T. (2011). Sexualized images of children on the internet. Sex Abuse, 23, 7-21.

- Quayle, E., McKenzie, K., Bannon, S., & Glynn, T. (2015). The Internet and young people with additional support needs (ASN): Risk and Safety. Computers in Human Behaviour. DOI: 10.1016/j.chb.2014.12.057
- Quayle, E., & Taylor, M. (2002). Paedophiles, pornography and the internet: Assessment issues. *British Journal of Social Work*, 32, 863–875.
- Quayle, E., & Taylor, M. (2002). Child pornography and the internet: Perpetuating a cycle of abuse. *Deviant Behavior*, 23, 331-361.
- Quayle, E., & Taylor, M. (2003) Model of problematic internet use in people with a sexual interest in children. *Cyber Psychology & Behavior*, 6, (1), 93-106.
- Quayle, E., Vaughan, M., & Taylor, M. (2006). Sex offenders, Internet child abuse images and emotional avoidance: The importance of values. *Aggression and Violent Behavior*, 11, 1-11.
- Reid, M. (n.d). What constitutes a collection? http://www.artmarketmonitor.com/what-constitutes-an-art-collection/
- Redden, J., & Steiner, C.J. (2000). Fanatical consumers: Towards a frame work for research. *Journal of consumer marketing*, 17, 4, 322-331.
- Reser, J.E. (2011). Conceptualizing the autism spectrum in terms of natural selection and behavioral ecology: The solitary forager hypothesis. *Evolutionary Psychology*, 9(2), 207-38.
- Rigby, D. & Rigby, E. (1944). *Lock, Stock and Barrel: The Story of Collecting*. Philadelphia, PA: J. B. Lippincott.
- Reinardy, R. (2006). Information hoarding: The need to know and remember. *Compulsive Foundation conference*. Retrieved from http://stlocd.org/wp-content/uploads/2016/08/InformationHoardingTheNeedtoKnowandRemember.pdf
- Reijnen, L., Bulten, E., & Nijman, H. (2009). Demographic and personality characteristics of internet child pornography downloaders in comparison to other offenders. *Journal of Child Sexual Abuse*, 18, 611-622.
- Roche, B., O'Reilly, A., Gavin, A., Ruiz, M. R., & Arancibia, G. (2012). Using behavior-analytic implicit tests to assess sexual interests among normal and sex-offender populations. *Socio- affective Neuroscience & Psychology*, 2. Retrieved from;
 - .http://www.socioaffectiveneuroscipsychol.net/index.php/snp/article/view/17335

- Rooney, F. (2003). *The internet and child sexual abuse: Personality and indicators of abusive behaviour*. (Unpublished doctoral dissertation), University of Dublin Trinity College, Dublin, Ireland.
- Rossman, G. B., & Wilson, B. L. (1985). Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review*, *9*(5), 627–643.
- Rosenbloom, A. L. (2013). Inaccuracy of age assessment from images of prepubescent subjects in cases of alleged child pornography. *International Journal of Legal Medicine*, 127(2), 467-71.

R v Graham Westgarth Smith; Jayson (2002) 1 Cr.App.R. 13, CA.

R v Land [1998] 1 Cr App R 301, CA

R-v-Oliver, Hartrey and Baldwin [2003] Cr App R(S) 15.

Saari, L. (1997). *Those crazy collectors*. The Orange County Register, Tuesday, April 15.

Samuels, J. F., Bienvenu, O. J., Pinto, A., Murphy, D. L., Piacentini, J., Rauch, S. L., Fyer, A. J., Grados, M. A., Benjamin, D., Greenberg, J. A., Knowles, J. T., McCracken, B., Cullen, M. A., Riddle, S. A., Rasmussen, D. L., Liang, K. Y., Hoehn-Saric, R., Pulver, A. E. & Nestadt, G. (2008). Sex-specific clinical correlates of hoarding in obsessive-compulsive disorder. *Behaviour Research and Therapy*, 46(9), 1040-1046.

Saxena, S. (2008). Neurobiology and treatment of compulsive hoarding. CNS Spectator, 13(9), 29-36.

Schecter, H. & Everitt, D. (2006). The A to Z encyclopedia of serial killers. London: Pocket Books.

- Sentencing Guidelines Council. (2007). Sexual offences Act 2003: Definitive guideline. *London: Sentencing Council*. Retrieved from http://www.sentencingcouncil.org.uk/wp-content/uploads/Final_Sexual_Offences_Definitive_Guideline_content_web1.pdf
- Sentencing guidelines Council. (2014). Sexual offences: Definitive guideline. Retrieved from http://www.sentencingcouncil.org.uk/wp-content/uploads/Aug-2015-Sexual-Offences-Definitive-Guideline-web.pdf
- Sentencing Advisory Panel (2002). The panel's advice to the court of appeal on offences involving child pornography. *UK: Home Office*. Retrieved from http://www.onepaper.co.uk/wp-content/uploads/2014/07/N12_Indecent_images_of_children.pdf

Seto., M. C. (2013). Internet sex offenders. Washington: American Psychological Association.

- Seto, M. C., Hanson, R. K., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse: A Journal of Research and Treatment*, 23, 124-145.
- Seto, M. C., Reeves, L., & Jung, S. (2010). Explanations given by CP offenders for their crimes. *Journal of Sexual Aggression*, 16(2), 169-180.
- Seto, M. C., Wood, J. M., Babchishin, K. M., & Flynn, S. (2012). Online solicitation offenders are different from child pornography offenders and lower risk than contact sexual offenders. *Law and Human Behavior*, 36, 320–330.
- Sexual Offences Act, c. 42 O.P.S.I. (2003). Retrieved from http://www.legislation.gov.uk/ukpga/2003/42/contents
- Shapira, N., Lessig, M., Goldsmith, T., Szabo, S., Lazoritz, M., Gold, M., & Stein, D. (2003). Problematic Internet use: Proposed classification and diagnostic criteria. *Depression and Anxiety*, 17, 207–216.
- Sheldon, K., & Howitt, D. (2007). Sex offenders and the Internet. Chichester, UK: Wiley.
- Singer, J, L., & Salvoley, P. (2011). Organised knowledge structures and Personalities: Person schemas, self-schemas, prototypes and scripts. In M, J., Morris (Eds.). Person schemas and maladaptive patterns, (33-79), Chicago. University of Chicago.
- Skinner, B. F. (1953). Science and human behaviour. New York: Free Press
- Slater, J. S. (2001). Collecting brand loyalty: A comparative analysis of how Coca-Cola and Hallmark use collecting behavior to enhance brand loyalty. *Advances in Consumer Research*, 28, 362–369.
- Smith, J. A. (1983). Quantitative versus qualitative research: An attempt to clarify the issue. *Educational Researcher*, 6–13.
- Smith, J.A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology*, 1, 39–54.
- Smith, J. A., & Eatough, V. (2007). *Interpretive Phenomenological Analysis*. In E Lyons & A, Coyle (Eds.) Analysing qualitative data in psychology. London: Sage.
- Smith, J. A., Flowers, P. & Larkin, M. (2009). Interpretive Phenomenological Analysis: *Theory, Method and Research*. London: Sage.

- Smith, J. A., & Osborn, M. (2003). *Interpretive Phenomenological Analysis*. In J. A., Smith (Eds.), *Qualitative Psychology: A Practical Guide to Methods*. London: Sage.
- Smith, J. A., & Osborn, M. (2008) *Interpretive Phenomenological Analysis*. In J.A. Smith (Ed.), Qualitative *psychology: a practical guide to methods* (2nd Edn) London: Sage.
- Soroka, M. P. (1988). *In heaven there is no beer, that's why we collect it here*. Paper presented at eighteenth Annual Meeting of the Popular Culture Association, New Orleans, LA.
- Spellar, K. C. (2014). Distinguishing the viewers, downloaders and exchangers of internet child pornography by individual differences: Preliminary findings. *Digital Research*, 11, 252-260.
- Steketee, G., & Frost, R. O. (2003). Compulsive hoarding: Current status of the research. *Clinical Psychology Review*, 23(7), 905–927.
- Steketee, G., Frost, R.O., & Kyrios, M. (2003). Cognitive aspects of compulsive hoarding. *Cognitive Therapy* and *Research*, 27(4), 463–479.
- Stenross, B. (1994). Aesthetics in the marketplace: Collectors in the gun business. *Qualitative Sociology*, 17, 29-43.
- Strone, C. (2010). Reconceiving connoisseurship. *Fine art connoisseur*. Retrieved from http://www.oldmasters.net/journal/reconceiving-connoisseurship-by-carol-strone-fine-art-connoisseurship-magazine-spring-2010/
- Subkowski, P. (2006). On the psychodynamics of collecting. *The International Journal of Psychoanalysis*, 87, 383–401.
- Suler, J. (2004). The online disinhibition effect. Cyber-Psychology and Behaviour, 7, 321-326.
- Sytech. (n.d). Issues of Indecent Image Classification. Retrieved from http://sytech-consultants.com/docs/useful-articles/Issues_of_Indecent_Image_Classification.pdf
- Tashakkori, A., & Teddlie, C. (2003b). The past and future of mixed methods research: From data triangulation to mixed model designs. In Tashakkori, A., & C. Teddlie (Eds.), Handbook of Mixed Methods in Social and Behavioral Research. Thousand Oaks, CA: Sage Publications.
- Taylor, M. (1999). The nature and dimensions of child pornography on the Internet *Combating child* pornography on the Internet conference, Vienna. Retrieved from. www.asem.org/Documents/aaconfvienna/pa_taylor.html

- Taylor, M., Holland, G., & Quayle, E. (2001). Typology of paedophile picture collections. *The Police Journal*, 74, 97-107.
- Taylor, M., & Quayle, E. (2003). Child pornography: An internet crime. Hove: Brunner-Routledge.
- Taylor, M. & Quayle, E. (2008). Criminogenic qualities of the internet in the collection and distribution of abuse images of children, *The Irish Journal of Psychology*, 29:1-2, 119-130.
- The Connoisseur an illustrated magazine for collectors. (n.d.). Guide to the magazines and journals collection.

 The Museum of Domestic Design & Architecture. Retrieved from

 http://www.moda.mdx.ac.uk/docs/mags_journals_guide_May09.pdf
- Thorne, S., & Bruner, G. C. (2006). An exploratory investigation of the characteristics of consumer fanaticism. *Qualitative Market Research: An International Journal*, 9(1) 51-72.
- Tolin, D. F., Meunier, S. A., Frost, R.O. & Steketee, G. (2011). Compulsive hoarding amongst patients seeking treatment for anxiety disorders. *Journal of Anxiety Disorders*, 25, 43-48.
- Tomak, S., Weschler, F. S., Ghahramanlou-Holloway, M., Virden, T., & Nademin, M. E. (2009). An empirical study of the personality characteristics of internet sex offenders. *Journal of Sexual Aggression*, 15, 139-148.
- Tonioni, F., D'Alessandris, L., Lai, C., Martinelli, D., Corvinos, S., Vasale, M., Fanella, F., Aceto, P, & Bria, P. (2012). Internet addiction: Hours spent online, behavioural and psychological symptoms. *General Hospital Psychiatry*, 34(1), 80-87.
- Toth, K., & King, B. H. (2008). Asperger's syndrome: diagnosis and treatment. *American Journal of Psychiatry*, 165, 958–963.
- U.S. Department of Justice (2010). The National Strategy for Child Exploitation Prevention and Interdiction: A Report to Congress. Washington, DC: U.S. Department of Justice. Retrieved from, www.justice.gov/psc/docs/natstrategyreport.pdf
- Van de Mortel, T, F. (2008). Faking it: Social desirability response bias in self reporting research. *Australian Journal of Advanced Nursing*, 25(4), 40-45.
- Venkatesh, V., Brown, S., & Sullivan, Y. W. (2016). Guidelines for conducting mixed methods research an extension and illustration. *Journal of the Association for Information systems*, 17(7), 435-495.

- Wall, G. K., Pearce, E., & McGuire, J. (2011). Psychological data for 50 child sex offenders from North West England Probation Services identified in: Are internet offenders emotionally avoidant? *Psychology, Crime & Law*, 17, 381–401.
- Walsh, W.A., Wolak, J., & Finkelhor, D. (2013). Sexting: When are state prosecutors deciding to prosecute? *The Third National Juvenile Online Victimization Study* (NJOV-3). Durham, NH: Crimes against Children Research Center. (CV294). Retrieved from http://www.unh.edu/ccrc/internet-crimes/papers.html
- Watkins, D. (2012). Qualitative research: The importance of conducting research that doesn't count. *Health Promotion practice*, 13(2), 153-158.
- Webb, L., Craissati, J., & Keen, S. (2007). Characteristics of internet child pornography offenders: A comparison with child molesters. Sexual Abuse: *A Journal of Research and Treatment*, 19, 449-465.
- Webster, S., Davidson, J., Bifulco, A., Gottschalk, P., Caretti, V. & Pham, T. (2012). European online grooming report. *European Commission, Safer Internet Plus Programme*. Retrieved from http://www.academia.edu/23987615/European_Online_Grooming_Project_-_Final_Report
- Wheaton, M. G., Cromer, K. R., LaSalle-Ricci, V. H., & Murphy, D. L. (2008). Characterizing the hoarding phenotype in individuals with OCD: Associations with comorbidity, severity and gender. *Journal of Anxiety Disorders*, 22, 243–252.
- Widyanto, L., & Griffiths, M.D. (2007). *Internet addiction: does it really exist*? In J. Gackenbach, (Eds.), *Psychology and the Internet: Intrapersonal, Interpersonal and Transpersonal Applications*, (2nd Edn, 141-63). New York: Academic Press.
- Williams, M., & Viscusi, J.A. (20160. Hoarding disorder and systematic review of treatment with Cognitive Behavioural Therapy. *Cognitive Behavioural Therapy*, 45(2), 93-110.
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory*. Open University Press, Buckingham
- Willig, C. (2008). *Interpretive phenomenology*. In C. Willig (Eds.) *Introducing qualitative research in psychology* (2nd Edn, 50–69). Philadelphia: Open University Press.
- Winder, B. C., & Gough, B. (2010). I never touched anybody that's my defence': Understanding the world of internet sex offenders using interpretative phenomenological analysis. *Journal of Sexual Aggression*, 16, 125-141.

- Winder, B., Gough, B. & Seymour-Smith, S. (2015). Stumbling into sexual crime: The passive perpetrator in accounts by male internet sex offenders. *Archives of Sexual Behavior*, 44 (1), 167-180.
- Winnicot, D.W. (1953). Transitional objects and transitional phenomena: A study of the first not-me possession. *International Journal of Psycho-Analysis*, 34, 89-97.
- Witty, P. A., & Lehman, H. C. (1931). Sex differences: Collecting interests. *Journal of Educational Psychology*, 22(3), 221–228.
- Wolak, J., Finkelhor, D., & Mitchell, K. J. (2004). Internet-initiated sex crimes against minors: Implications for prevention based on findings from a national study. *Journal of Adolescent Health*, 35, 424.
- Wolak, J., Finkelhor, D., and Mitchell, K. (2012). *Trends in Arrests for Child Pornography Possession: The Third National Juvenile Online Victimization Study* (NJOV-3). Durham, NH: Crimes against Children Research Center. (CV269) Retrieved from http://www.unh.edu/ccrc/internet-crimes/papers.html
- Wolak, J., Finkelhor, D., and Mitchell, K. (2012a). *Trends in Arrests for Child Pornography Production: The Third National Juvenile Online Victimization Study* (NJOV-3). Durham, NH: Crimes against Children Research Center. (CV270. Retrieved from http://www.unh.edu/ccrc/internet-crimes/papers.html
- Wolak, J., Finkelhor, D., and Mitchell, K. (2012b). *Trends in Law Enforcement Responses to Technology- facilitated Child Sexual Exploitation Crimes: The Third National Juvenile Online Victimization Study*(NJOV-3). Durham, NH: Crimes against Children Research Center. (CV268). Retrieved from http://scholars.unh.edu/cgi/viewcontent.cgi?article=1044&context=ccrc
- Wolak, J., Liberatore, M. & Levine, B.N. (2013). Measuring a year of child pornography trafficking by U.S. computers on a peer-to-peer network. *Child Abuse & Neglect.* 3, 35-41.
- Wortley, R., & Smallbone, S. (2006). Child pornography on the internet. Retrieved, from, http://www.cops.usdoj.gov/files/ric/Publications/e0406.
- Yardley, L. (2000). Dilemmas in qualitative health research. Psychology and Health, 15, 215-28.
- Young, K. S. (2011). Hooked online: The lure of the internet. *The CAPA Quarterly, Journal of the Counsellors of Australia and Psychotherapists Association of NSW, Inc*, 4: 24-27.

Appendices

Appendix A: Consent Form for Study 1: Image Collectors

It has been explained to me that I am taking part in research which is looking at human collecting behaviour. The research is being done by researcher Anthony McNally from Nottingham Trent University as part of a doctorate degree. The findings will help people understand collecting behaviour especially the nature function and processes associated with it.

What am I agreeing to?	
I am agreeing to take part in an interview about my collecting behaviour.	
I understand that if I chose to take part in the study I can stop these interviews at any time to have a break or end the interview.	
I understand that the interviews will be recorded on a password protected Dictaphone. These recordings will be deleted when the research has finished.	
I understand that what I said during the interview will be written up, and that everything that we talked about except my name will be written on these notes, I understand that a false name will use to identify my information in any research report that uses my quotes.	
I understand that an anonymised version of my data will be used in a doctorate thesis, may also be use in a published article and for teaching purposes. No one will be able to know that this information relates to me.	
I understand that I can withdraw from the interview at any time	
I understand that I can withdraw my interview data anytime up to 4 weeks after the interview has taken place	
Signed	
Witnessed	

Appendix B: Consent Form for Study 2: IIOC Offenders

It has been explained to me that I am taking part in research which is looking at the gathering and saving behaviour of individuals who download and save to their computer, sexual images of children. The research is being done by Anthony McNally from Nottingham Trent University as part of a Doctorate degree. The findings will help people understand sexual offending better, this will hopefully help to improve treatment programmes for sexual offenders.

What am I agreeing to?	
I am agreeing to take part in interviews regarding my gathering and saving behaviour.	
I understand that taking part in or withdrawing from the interviews will not have any effect on my chances of parole or the treatment that I may receive in prison.	
I understand that I can stop these interviews at any time to have a break or end the interview.	
I understand that the interviews will be recorded on a Dictaphone. These recordings will be deleted when the researcher has typed up the interview.	
I understand that what I said during the interviews will be written up, and that Everything that we talked about except my name will be written on these notes, I understand that a false name will use to identify my information in any research report.	
I understand the interviews will not be disclosed to prison staff unless I mention information which relates to	
a) Self-harming	
b) A risk of someone else being harmed	
c) An offence which I have not been convicted for, or	
d) Plans to escape or break prison rules.	
I understand if I mention any of these things the information may be passed to the relevant authority.	
I understand that an anonymised version of my data will be used in a doctorate	

thesis, may also be use in a published article and for teaching purpo	oses. No one will		
be able to know that this information relates to me.			
	_	_	
I understand that I can withdraw my interview data at least 4 week	s after the interview	_	
Please contact me (Anthony McNally Psychology Department, HMP Whatton) in the event that you want to withdraw your information from the research.			
Signed	Date		
Witnessed	Date		
(Anthony McNally)	Dave		
(Anthony McNany)			

Appendix C: Study 1: Semi Structured Interview Schedule Image Collectors

Nature

What sort of things do you collect? How long?

Do you have one major interest or a primary collection? How Long? How big?

What types of images do you collect?

What makes a good collection of these images?

- Is size of collection important
- Would you have duplicates (if yes/no why)
- Are there such things as sets of images or series of images within what you collect?
- What does a set involve, do you have any sets, are they complete sets or series
- Are there rare images? What makes an image rare?

In terms of these images that you have do you consider yourself to be a collector|? (If yes/no why)

Function

Why might you acquire certain images but not others?

Why did you collect these types of images, or why are these images important to you?

- Are there any specific types of images that you prefer (why)?
- What is it like when you acquire for your collection these images?
- What is it like when you look at these images?
- What is it like when you can't find new images that you like?
- How did you feel when you acquired a new image for your collection
- How often would you look at an image once you acquired it (why, explain)?
- Why is it important to have complete sets of images? How do you feel if others have a more complete collection?
- Why is it important to have rare images?
- Why is it important to have small or large amounts of images?
- do you see your collection as having a social aspect (if yes please explain)

Processes:

What age did you start collecting images/postcards etc. - how did you get started?

Tell me about the types of images you started with: did this change over time (why)

Tell me how you would go about getting the images for your collection? At the beginning how did you go about getting images-how did this change over time?

How much time do you spend thinking about finding new images? How much time do you spend searching for these images- why do you spend so much/ so little time searching?

- Research (tell me about this)
- The hunt (tell me about this
- acquiring

After acquiring the images what would you do with them?

- How often might you look at a new image?
- Would you look at older images that you had acquired? If yes why do this images become significant again?
- If you keep an image/images how would you store them?
- How would you manage your collection (categorising, ordering, cataloguing) why is this important to vou?
- Would you share your images with others- how and why is this important
- Would you talk about your collection or recent acquisitions with others? How? Why is this important? Are there any processes that you go through that are more important to you than others? Tell me about them, what makes them important?
 - Research, the hunt, acquiring, interaction, managing (ordering cataloguing etc.) display, social interaction.

When will you collection be complete? Why do you keep looking for images?

Do you ever produce images that could be collected, deal in or share images? If yes which step came first?

Do you have any other collections (what do these involve) why do you collect these?

Any other questions?

Appendix D: Study 2: Semi Structured Interview Schedule of Indicative Questions for IIOC Offenders

Nature

Have you downloaded from the internet sexual images of children?

What types of sexual images of children have you downloaded?

What types of sexual images of children have you saved?

What makes a good collection of sexual images of children (why)?

- Are there any specific types of images that you preferred (Why)?
- Is size important?
- Would you have duplicates? Why?
- Are there such a things as sets of sexual images of children or series of images? What sets involve? Did you have any sets? Where these complete
- Are there rare images? What makes an image rare?

In terms of these images do you consider yourself to be a collector (if yes why, if no why)?

Function

Would you ever look at sexual images of children online but not save them? Why might you save some but not others?

Why did you gather and save these sexual image of children? or Why are these sexual images of child important to you?

- Are there any specific types of images that you preferred (Why)?
- What is it like for you when downloading and/or saving the images?
- What is it like for you when looking at the images?
- What is it like for you when you can't find new images?
- How did you feel after you downloaded and saved a new images?
- How often might you look at an image once you had saved it?
- Why is it important to have complete sets of images? How did you feel if others had a more complete collection?
- Why is it important to have rare images?
- Why is it important to have small or large amounts of images?
- Is there a social aspect to having these images?

Process

What age did you start downloading and saving these images - how did you get started?

Tell me about the types of images you started with. : did this change over time (why)?

Tell me how you would go about getting these images? At beginning how did you go about getting images – how did this change over time?

How much time do you spend thinking about finding new images? How much time would you spend searching on the internet for these images? Why do you spend so much/so little time searching?

- Research (tell me about this?)
- The Hunt (tell me about this?)
- Acquiring

After getting the images, what would you do with them?

- How often might you look at a new image?
- Would you use old images? Why do these become significant again?
- Would you save it? If yes where would you store it
- How would you manage your collection of images (Categorising, ordering, cataloguing? Why is this
 important to you?
- Would you share image with others how and why is this important?
- Would you talk about your collection or recent acquisitions with others? How? Why is this important?

Are there any processes that are more important than others e.g. Research, the hunt, obtaining, interacting with, categorising, ordering, displaying, social interaction

Why would you keep looking for images?

Have you ever produce sexual images of children or distributed sexual images of children? If yes which step came first?

Do you have any other collections (what do these involve?) Why do you collect these?

Any other questions?

Thank-you for participating

Appendix E: Study 3: Collecting-Offending Survey & Psychometric Measures