

The use of online methodologies in studying paraphilias – A review

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Aims: The paper outlines the advantages, disadvantages, and other implications of using the Internet to collect data from those people displaying sexually paraphilic behavior. *Method:* Using empirical and clinical studies published in the paraphilia literature, the main issues concerning online paraphilic data collection are reviewed and discussed. *Results:* The specific online data collection methods examined included the collection of paraphilic data via (i) online questionnaires, (ii) online forums, (iii) online interviews, and (iv) online participant observation. *Conclusions:* It is concluded that there are many useful and practical advantages of using online research methodologies to examine sexually paraphilic behavior.

Keywords: sexual paraphilia, sexual behavior, online methodologies, sex addiction, behavioral addiction

INTRODUCTION

In the latest edition, DSM-IV-TR (American Psychiatric Association, 2000), a sexual paraphilia is defined as a disorder if it meets two key criteria. The essential features of a paraphilia are recurrent, intense sexually arousing fantasies, sexual urges or behaviors generally involving (1) non-human objects, (2) the suffering or humiliation of oneself or one's partner, or (3) children or other nonconsenting persons that occur over a period of at least six months (Criterion A). The diagnosis is made if the behavior, sexual urges, or fantasies cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion B). These criteria (particularly Criterion B) are arguably similar to (i) many types of hypersexual disorders and sex addiction (Griffiths, 2012; Reid, Garos & Fong, 2012), and (ii) behavioral addiction more generally (e.g., Demetrovics & Griffiths, 2012; Grant, Potenza, Weinstein & Gorelick, 2010; Griffiths, 2005).

Up until around 2000, paraphilic behavior had been relatively little studied outside of published case studies. However, the internet is providing a new arena in which research scientists can collect data from people in much easier ways than prior to the introduction of online technologies (Hucker, 2011; Riegel, 2009). Other areas that have studied sensitive topics (such as those with various types of chemical and behavioral addiction) appear to have embraced the internet as a medium for collecting data to a much greater extent than those researching the wide range of paraphilias.

There are many advantages of conducting research and collecting data on paraphilic populations via the Internet. As Wood and Griffiths (2007) point out, researchers do not have to be in the same geographical location as either the participants or fellow research colleagues. This makes both multi-cultural research and cross-institutional research collaborations on various paraphilias more practical. Furthermore, the researcher may not need to have an understanding of web design due to the development of easy to use web design software (e.g., web software that allows researchers to put online surveys onto the Internet). Advantages for using online research methods outlined by a number of authors

both generically (Michalak & Szabo, 1998; Szabo & Frenkl, 1992), and for specific addictive behaviors such as gambling and gaming addictions (e.g., Griffiths, 2010; Wood & Griffiths, 2007; Wood, Griffiths & Eatough, 2004) include the fact that the Internet:

- Can facilitate new possibilities for anonymous behavioral research with otherwise inaccessible participants such as paraphiliacs (e.g., Duffy, 2002; Rhodes, Bowie & Hergenrather, 2003; Riegel, 2009) and other rare sexual behaviors such as sexsomnia (Mangan, 2004; Mangan & Reips, 2007; Trajanovic, Mangan & Shapiro, 2007), sneezing after sex (Bhutta & Maxwell, 2008) and the sexual behavior of 'furries' (Evans, 2008; Gerbasi et al., 2008; Rust, 2001)
- Can be a very useful medium for eliciting rich and detailed data in sensitive areas (such as paraphilic behavior). Related to this, Bhutta and Maxwell (2008) claim that internet chat rooms could be a potential new tool for investigating the incidence of unusual or embarrassing symptoms (which would include paraphilias) that patients may not feel appropriate to discuss with their doctor. Earlier, Prentlow (2002) had made exactly the same argument in relation to gathering data on diaper fetishes and argued that this method of data collection was particularly good where there was social stigma attached to the behavior.
- Has a disinhibiting effect on users and reduces social desirability. For populations discussing sensitive issues like paraphilic behavior, this may lead to increased levels of honesty and therefore higher validity in the case of self-report. Research has tended to show that online communication can lead to more emotional discourse and higher levels of personal

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disclosure than in face-to-face settings. Online self-report methodologies may result in more honest responses from paraphiliacs.

- Provides access to individuals (e.g., those with paraphilias) who may not have taken part in the research if it was offline.
- Has a potentially global pool of participants, therefore researchers are able to study extreme and uncommon behaviors (such as paraphilias) as well as make cost effective cross-cultural comparisons.
- Provides access to “socially unskilled” individuals (e.g., some paraphiliacs) who may not have taken part in face-to-face situations.
- Can aid participant recruitment through advertising on lots of different bulletin boards and websites (e.g., paraphilia chat rooms, paraphilia forums).
- Can contain archived material allowing time-based qualitative research can be carried out.
- Produces data that in most cases can be automatically transcribed which suits some particular psychological methodologies (e.g. interpretative phenomenological analysis, discourse analysis, etc.).

Psychological research into paraphilic behavior that can be done online includes correlational, cross-sectional, survey-type and/or descriptive research. Online data collection can also facilitate ‘snowball’ sampling techniques that are particularly useful in sensitive areas where the numbers of people affected by a particular disorder are very low (Wood & Griffiths, 2007). Furthermore, such techniques may help in obtaining much larger and/or possibly more diverse and extreme samples (e.g., paraphiliacs) than would otherwise be possible to attain in an offline situation. However, there can also be disadvantages including issues such as reliability, validity, and generalizability although it could be argued that these are just as likely in offline environments. It may also be difficult to verify that the participants are who they say they are (e.g., over 18 years old, is male or female, is really a paraphiliac, etc.). This also poses ethical questions which have been discussed at length elsewhere (see Wood & Griffiths, 2007). In this paper, the advantages and disadvantages to this form of data collection among those with paraphilic behavior will be outlined. The specific online data collection methods examined will be the collection of paraphilic data via (i) online questionnaires, (ii) online forums, (iii) online interviews, and (iv) online participant observation.

Data collection via online questionnaires

Probably the most used online data collection method for studying paraphilic behavior is the online questionnaire. Typically in these types of study, online questionnaires are publicized and placed at online paraphilia forums. Each site tends to have similar structured features (e.g. help guide, maps, forums, etc.). These forums are a convenient way to communicate information between paraphiliacs (like a pin up notice board for everyone to see). Typically, each hour, hundreds of messages are passed on amongst the paraphiliacs within the forum. Research has shown that the Internet can provide data equal in validity and quality to in-person “paper and pencil” studies (Pettit, 2002).

Some of the many advantages of online questionnaires targeted at such specific paraphilic groups include (i) ease of participant recruitment and confirmed presence of the target

group (that may have a rare disorder) under study, (ii) collapsed geographical boundaries that may increase numbers of participants in the target group including culturally diverse samples, (iii) improved time and cost efficiencies due to scalability (i.e., allows relatively large scale samples to be surveyed quickly and efficiently at a fraction of the cost of ‘pen and paper’ equivalents with no travel needed by either the researchers or the participants), and (iv) facilitated data collection and manipulation (e.g., automated data inputting) (Wood & Griffiths, 2007; Wood et al., 2004) Furthermore, Wood and Griffiths (2007) also argue that online surveys can be particularly useful in gauging opinions from a target group at any particular point in time. Online questionnaires are particularly useful for the discussion of sensitive issues that participants may find embarrassing and/or stigmatizing in a face-to-face situation (such as paraphilic behavior). The nature of this medium means that a relatively high degree of anonymity can be maintained, and paraphiliacs may feel more comfortable answering sensitive questions on their computer rather than in a face-to-face situation.

The main disadvantages of online questionnaire use (including ethical issues) among paraphiliacs (e.g., potentially biased samples, validity issues such as not being able to verify that the participants are who they say they are) are in many ways no different than those encountered in more traditional offline research approaches. Survey data are necessarily self-report although – as mentioned in the introduction – the collection of the data online may have lowered social desirability and increased levels of honesty among addicts. Another disadvantage is that many paraphiliacs may be suspicious of unsolicited requests to take part in online questionnaire studies. To overcome this, the researcher may have to spend some time actually taking part in activities of that particular online community (e.g., participating in online discussions) before potential participants trust the researcher enough to participate. From an ethical perspective, research examining sensitive issues (such as sexually paraphilic behavior) has the potential to cause distress for a participant – even when there is no malice intended from the researcher. Safeguards need to be put into place to ensure the participant has a professional to turn to if for some reason the data collection process causes some psychological distress.

Mangan and Reips (2007) in their Internet-based research on sexsomnia also reported that issues may arise from the researcher’s limited control of the situation and from technical issues. For instance, they noted that multiple submissions may occur and can sometimes be difficult to detect. They also claimed that instructions to participants may be misunderstood because the researcher is not present to provide further explanation. Although not studying paraphilic behavior, Blanchard and Lippa (2007) utilized an online survey to investigate the relationship between sexual orientation, fraternal birth order (number of older brothers), and hand-preference in nearly 160,000 people (87,798 men and 71,981 women). Blanchard and Lippa never mentioned the method of data collection in the paper but it is debatable whether such large sample sizes would have been gained if using ‘pen and paper’ survey methods.

There are four quantitative studies based on the online data collected by Cooper, Delmonico and Burg (2000), Cooper, Delmonico, Griffin-Shelley and Mathy (2004), Cooper, Galbreath and Becker (2004), and Cooper, Griffin-Shelley, Delmonico and Mathy (2001) that used the same online participant dataset and recruitment process. Each of the studies had a slightly different purpose. These studies examined the

characteristics and usage patterns of online sexual behaviors in a sample of 9,265 adults. Based on their questionnaire scores, participants were categorized as non-sexually compulsive ($n = 7,728$), moderately sexually compulsive ($n = 1,007$), sexually compulsively ($n = 424$), and cybersexually compulsive ($n = 96$). As in the study by Blanchard and Lippa (2007), it appears that online recruitment led to a large number of participants who felt comfortable enough online to reveal details about their sexual behavior. Peter and Valkenburg (2011) specifically used an online survey to examine sexually explicit internet material conducted among a nationally representative sample of 1,445 Dutch adolescents and a nationally representative sample of 833 Dutch adults. The authors argued that when sensitive questions are asked (such as those involving people's consumption of sex), online surveys have been shown to produce more honest and accurate responses and higher participation rates (Mustanski, 2001).

Vanwesenbeeck, Bakker and Gesell (2010) assessed the epidemiology of sexual health in the Netherlands among a random sample of adults living in the Netherlands ($N = 4,147$) using internet panels. The study assessed the prevalence of a broad range of sexual health issues including paraphilic behavior. They reported that nearly one in five men, and one in ten women said they had paraphilic desires during sex (with 8% of men actually engaging in their paraphilic desires). A study by Riegel (2009) was conducted online by posting links to an online questionnaire on various online newsgroups including "survivors" of sexual abuse or devotees of "boy love". Riegel admitted that this approach was not ideal, but in the present social climate he argued it was the most practical in collecting data on these topics.

One particular paraphilia where researchers have arguably made the most use of the internet for both recruitment and data collection is that of zoophilia. As Earls and Lalumiere (2009) note, almost all data on zoophiles since 2000 have come from online recruitment. There have been three quantitative studies of zoophilia among non-clinical (i.e., community) samples. This includes studies by Beetz (2004; 32 zoophiles), Miletski (2000, 2005; 93 zoophiles) and Williams and Weinberg (2003; 114 zoophiles). It could be argued that none of these data sets would have been possible without the advent of the internet and the internet sites devoted to bestiality and zoophilia. Research into zoophilia via online data collection demonstrated that online samples provided different results to previously reported case studies. Unlike the relatively few published case accounts, online zoophilic studies suggested that there were both men and women who had clear preferences for zoophilic activities and that the behavior was not a substitute for the absence of other humans in the locality. Online zoophilic studies also showed that far from suffering any kind of mental abnormality or psychiatric condition, that many zoophiles lived both happy and productive lives.

Another form of paraphilic behavior where researchers have taken advantage of online specialist groups to recruit paraphilic samples is in the area of 'fat admiration' (FA) where there has been a substantial increase in specific discussion and dating websites devoted to the 'fat fetish' and 'feederism' communities. For instance, Swami et al. (Swami & Furnham, 2009; Swami & Tovee, 2006; 2009) have recruited fat admirers for a number of their studies on body size and attractiveness by seeking out those who frequent fat admiration online dating sites. As Swami and Furnham (2009) noted in their native country (UK), there are count-

less online dating and matchmaking websites for 'Big Beautiful Women' (e.g., *DatingBBW*, *LargerDate*), as well as web rings (e.g., *Fat & Proud*), and online support networks (*Big People UK*, *Loving It Large*). They also noted (that online) it is possible to find photographs of extremely overweight and obese women and men in specialist erotica (e.g., pornographic magazines like *Voluptuous* and *XL Girls*).

In a study of apotemnophilia, Blanke, Morgenthaler, Brugger and Overney (2009) spent six months in recruiting 20 participants who desired a non-medically necessary amputation using the internet. This was achieved by placing advertisements on body integrity identity disorder websites. Similarly, a study by Veale, Clarke and Lomax (2008) also used the internet to recruit transgendered individuals via New Zealand online transgender social groups and social support groups to examine 15 aspects of sexuality among a non-clinical sample of 234 transsexuals and 127 biological females. They were also given the option of filling out the study online.

These, and other studies, clearly show that the internet is a valuable resource for the collection of data from paraphiliacs. In most of the studies (particularly those examining zoophilia), key knowledge was generated from using online surveys highlighting that for some paraphiliacs, the preferences and motivations for the particular behavior was a lifestyle choice and not symptomatic of underlying psychological/psychiatric disorders and/or a substitute for 'normal' sex when traditional outlets for sexual behavior are not available. The online studies are also more likely to include paraphiliacs who have not sought out medical help and that paraphiliacs recruited online are more likely to be psychologically comfortable about their behavior. Therefore, the questions posed to such paraphiliacs are very different to the data that is gathered from collecting data in clinical settings (as those seeking help usually want to stop or change their behavior whereas those who do not seek out help may not want to).

Data collection via online forums

The Internet can be a rich and complex resource of textual material. As such, it can be invaluable to those researchers interested in specific experiences of particular individuals such as paraphiliacs. Included in the lived experiences of paraphiliacs are perceptions, beliefs and feelings, all of which are made sense of by the individual through the process of meaning making. Some of the most interactive and textually rich parts of the Internet are numerous paraphilic forums. Paraphilic forums typically comprise interactive sites where messages can be left or particular gaming topics discussed in real time. These sorts of data are naturalistic and can be collected without identifying oneself as a researcher or even acknowledging a researcher's presence (Wood & Griffiths, 2007). Such forums can be dedicated to specific types of paraphilia such as zoophilia (<http://www.doglove.com/>), urophilia (<http://peemybaby.com/>), transvestism (<http://www.lauras-playground.com/>), feederism (e.g., <http://fantasyfeeder.com/>) and sneeze fetishes (e.g., <http://www.sneezefetishforum.org/>) or more general forums on paraphiliacs across the spectrum (e.g., <http://www.psychforums.com/paraphiliacs/>, <http://www.experience-project.com/>). The focus of these forums can range from hints, tips and strategies through to concerns about the paraphilic behavior (e.g., the time spent engaging in the be-

havior by the paraphiliacs themselves or by their spouses and partners).

Hucker (2011) recently provided a brief overview of hypoxyphilia supplemented with information from an (as yet) unpublished study of 115 hypoxyphiliacs (91 men and 24 females) collected from an autoerotic asphyxiation interest website (i.e., *autoeroticasphyxia.ca*). Hucker argued that the internet was a new avenue to study sexually anomalous behavior and interests. Hucker acknowledged that although there were methodological limitations to this method, it had enabled researchers to gain confidential information from individuals that were unlikely to put themselves forward for interview (Kim & Bailey, 1997). Hucker's study was conducted by creating a forum for the purpose of collecting data from this particular paraphilic community. In addition to the 115 hypoxyphiliacs completing an online survey, several participants provided detailed in-depth descriptions of their fantasies, behavior, and sexual interests. Hucker claimed that no other empirical source provides data on such a large group of self-identified hypoxyphiliacs.

The creation of bespoke websites to collect data about extreme and/or abnormal sexual behavior was also employed by Mangan in his studies of sexsomnia (Mangan, 2004; Mangan & Reips, 2007; Trajanovic et al., 2007). He created the *Sleepsex.org* website and collected data from over 220 sexsomnia. Prior to 2007, only seven academic papers had been published with the number of sexsomnia totaling just 30 cases, the largest sample size being 11 people (Mangan & Reips, 2007). This study alone shows the advantages of recruiting online in relation to maximizing numbers of participants.

In order to understand the nature of the bestiality subculture online, Jenkins and Thomas (2004) studied 100 forum websites dedicated to the portrayal of bestiality. The authors claimed that the advent of the internet has facilitated the networking among and marketing to a subculture of participants across time and space. All 100 websites were selected and coded and fell into three main types. These were 'pornography' (i.e., sites oriented toward those who enjoyed viewing or participating in bestiality; 80% of the sites), 'community building' (i.e., sites oriented toward providing news or encouraging communication among fellow bestiality practitioners and sympathizers; 7%), and 'exhibitionism' (sites oriented to showing bestiality for exhibitionist purposes, either as moral judgment or for humor; 9%). The remaining sites were hybrid sites. The authors hypothesized that women would be disproportionately represented on bestiality websites. The study found only one of the 100 websites featured a (human) male in a bestial act (a man receiving fellatio from a goat). They also reported that it was difficult to describe the depictions of women as anything but degrading. They also claim that the "The Internet fulfills a similar function as bohemian neighborhoods and red light districts have fulfilled for other (larger) deviant subcultures in the past. By creating a commons for individuals with similar interests and concerns, it is not surprising that a subculture devoted to bestiality has developed" (p. 14).

Perhaps the most comprehensive piece of research carried out using data from online paraphilic forums was by Scorolli, Ghirlanda, Enquist, Zattoni and Jannini (2007) on the relative prevalence of different fetishes. Most previous studies on fetishistic behavior are either case studies or small-scale surveys where sample sizes are rarely above 100 participants. Additionally, data from the studies examining

rare fetishes are typically from psychiatric patients, sex offenders, and/or those who have sought (or have been referred to) a therapist. Scorolli et al. examined the content found in fetish discussion groups. Via a search of *Yahoo!* groups online, the research team located 2,938 groups whose name or description text contained the word 'fetish'. They then applied a number of inclusion and exclusion criteria.

- First, the identified groups that dealt with sexual topics and discarded groups that used 'fetish' in a non-sexual context (e.g., fetish for a rock band).
- Secondly, they excluded groups that used 'fetish' to deny that the group was about sex (e.g., a support group for pregnant women stated explicitly that the group did not discuss 'pregnancy fetish').
- Thirdly, some groups were excluded because the sexual nature of the topic could not be established with confidence (e.g., there was no description text of what the fetish was).
- Fourthly, groups were excluded if the group discussed 'sex' or 'fetishism' generically and therefore could not be categorized.
- Fifthly, groups that had no identified members were excluded

Following the application of the inclusion and exclusion criteria, 381 fetish discussion groups were left for analysis. The average number of posts per month within the groups was over 4,000 that included over 150,000 members. The authors argued that figure was inflated, because many fetishists would be subscribed to more than one group. It was estimated (very conservatively in the authors' opinion), that their sample size comprised at least 5,000 fetishists (but was likely to be a lot more). The authors devised a classification scheme whereby fetish preference was assigned to one or more categories. Three main categories were body, objects and behaviors, and then further sub-divided to describe a:

- Part or feature of the body (e.g., feet, fat people) and body modifications (e.g., tattoos).
- Object associated with some part of the body (e.g., shoes).
- Object not associated with some part of the body (e.g., candles).
- Person's own behavior (e.g., biting fingernails).
- Behavior of other persons (e.g., smoking).
- Behavior requiring interaction with others (e.g., humiliation role-play).

Approximately 70% were assigned to just one of these categories. The relative frequency of each fetish was estimated by taking into account (a) the number of groups devoted to the particular fetish, (b) the number of individuals participating in the fetish groups and (c) the number of messages exchanged within the group forum. Their results showed that body part fetishes were most common (33%), followed by objects associated with the body (30%), preferences for other people's behavior (18%), own behavior (7%), social behavior (7%), and objects unrelated to the body (5%). Feet (and objects associated with feet) were by far the most common fetishes. As researchers, none of the team led by Scorolli participated in any online communications nor did they gather information in the form of online interviews, surveys, etc. This form of Internet-based research approach has been described as both passive

(Eysenbach & Till, 2001) and unobtrusive (Paccagnella, 2006).

Despite the clear advantages of using online forum data to study paraphiliac populations (ease of data collection, cost-efficiency), the collection of paraphilic data by 'lurking' (i.e., observing without making presence known) raises some interesting ethical issues. In online research, the lines have become blurred between 'public' and 'private' spaces. On some level, cyberspace is always a public domain unless specifically designated as private. However, respecting a person's right to privacy is viewed as a basic ethical requirement of any social science study. Some may argue that it is the perceptions of the participant that defines the domain as public or private, rather than the physicality of the situation (Wood & Griffiths, 2007). The issue of privacy may become more complicated if the researcher is involved in online participant observation.

As with online surveys, key knowledge has been generated from using online forum data highlighting that for some paraphilias, the preferences and motivations for the particular behavior was a lifestyle choice and not symptomatic of underlying psychological/psychiatric disorders and/or a substitute for 'normal' sex when traditional outlets for sexual behavior are not available (although this may be inferred from the data collected rather than the researcher instigating the questions). The types of question that can be answered using online forum data are often unique and cannot be collected any other way (such as the study on fetish groups by Scorolli et al., 2007).

One final thing worth noting is that online forums are often the first port of call for paraphiliacs to contact and meet other like-minded people. However extreme the sexual behavior is, the internet arguably provides the best medium in which to facilitate people's sexual desires. Arguably the most infamous example of this was that of the German Armin Meiwes (Pfafflin, 2008). Meiwes, a computer technician, gained worldwide media attention as the 'Rotenburg Cannibal' for killing and eating a fellow German male victim (Bernd Jürgen Brandes). Meiwes had allegedly been fantasizing about cannibalism since his childhood and frequented cannibal fetish website forums and posted around 60 advertisements online asking if anyone would like to be eaten by him. Meiwes claimed around 200 men responded to his online requests but only one finally met face-to-face.

In March 2002, Brandes responded to Meiwes' advertisement on the Internet. At their one and only meeting at Meiwes' house, their first cannibalistic act was for Meiwes to bite off Brandes' penis and then jointly cook and eat it. Brandes then drank lots of alcohol, cough syrup, and took sleeping pills, and was stabbed to death by Meiwes in his bath (and videotaped). The body was then stored and over time, Meiwes ate large amounts of it (about 20 kg). The one aspect that shocked most people was not the fact that Meiwes ate a lot of Brandes' body but that Brandes appeared to consent to being eaten. Perhaps the most interesting aspect of the case from an Internet-related standpoint is that this was an example of the internet being used to facilitate the meeting of a cannibal and a vorarephiliac (i.e., someone who wanted to be eaten). Although not impossible, it is highly unlikely that this pairing would have happened without the Internet. This is one of the reasons that those researchers in the paraphilia field should utilize data collected from online paraphilic forums.

Data collection via online interview

Another online methodology that can be utilized to collect data on paraphilic behaviors is online interviewing (although there are many of the same ethical issues as the use of online surveys). Such a methodology is particularly useful for case study research. Anyone interested in the field of paraphilic behavior would no doubt agree with Kazdin (1998) that there is much value in scientific case studies. Not only can rare and/or intriguing cases be highlighted but they can be useful in generating new hypotheses.

Online interviewing of paraphiliacs is advantageous. As with collecting paraphiliac data via online questionnaires, online interviewing of paraphiliacs involves a considerable saving in time for both researchers and participants as there is no travelling involved for either party. Online interviews can also be carried out synchronously (via an instant messenger system) or asynchronously (via e-mail). Asynchronous online interviews may be attractive and convenient for paraphiliacs allowing them to respond at their own pace and in their own time. Furthermore, paraphiliacs have the opportunity (if they so wish) to take more time and reflect on the researchers' questions. In some cases, this may produce more considered responses and/or richer data. Such detailed accounts can also be used to publish case studies that may have not been highlighted in the literature.

One of the main advantages with the collection of case study data online is that those being interviewed may be very different from those who seek out medical and professional help for their paraphilic behavior. As with data collected via online surveys, paraphiliacs divulging information online may be less psychologically disturbed about their behavior and may be happy and have incorporated their paraphilic behavior into their day-to-day lives. Most of the advantages outlined in the previous section equally apply to online case studies.

In one of the few published papers on 'feederism', Terry and Vasey (2011) e-mailed 13 women who self-identified as 'feedees' on the *FantasyFeeder.com* website asking if they would like to participate in a research study into various aspects of female sexuality. Only one woman agreed to be interviewed – a white 30-year-old married woman ('Lisa'). Her reason for participating was because of her own curiosity about her sexual arousal to food, eating and gaining weight. Lisa was interviewed via e-mail for a period of four months (January to April, 2009). The authors were aware of the main limitation of this study (and any case study) is that Lisa represented only a single case of feederism and, as such, was not representative of the entire community. However, the rich data from this one case certainly added much to what little was known about feederism.

Another informative paper was by Earls and Lalumiere (2009) whose recruitment of a zoophile via the internet allowed them to establish the veracity of some of their respondents who contacted them online. For instance, one letter from "Possum" was long and detailed. Earls and Lalumiere noted that embedded within the e-mail was a name. By cross-referencing the name with a number of different data banks (e.g., the *Social Sciences Citation Index*, *Google* and *Yahoo*), they were able to verify several important demographic aspects of the person who sent the e-mail. Possum soon realized he had inadvertently divulged his identity. Earls and Lalumiere were thus satisfied that the information supplied in the initial e-mail was true and (with the person's

permission) published the case in the *Archives of Sexual Behavior*.

The use of online interviews in studying sexual paraphilias has provided knowledge in some areas that were completely unknown before the advent of the internet (e.g., feederism). In relation to the types of question that can be asked, the main advantage of interviewing paraphiliacs online is that for the person being interviewed it may overcome feelings of embarrassment, alienation and stigmatization, particularly as paraphilic behaviors can be difficult and sensitive subjects to talk about. However, online interviews only proceed at the speed of a paraphiliac's typing and responses by participants on instant messaging systems or e-mail generally give shorter responses to interviewer questions than those interviewed face-to-face.

Data collection via online participant observation

Many researchers have employed the ethnographic method as a means of understanding and describing different cultures. This method has many advantages for studying paraphilic behavior. By going online, the researcher becomes a part of the phenomenon that is being studied. Furthermore, personal experience of the domain of investigation can be a distinct advantage in many ways. For example, knowing the etiquette among paraphiliacs and experiencing the actual paraphilia can all be very insightful and may sometimes be essential for the design, implementation and analysis of online studies in the paraphilia field.

Ethnography focuses on accounting for the actions and intentions of the studied social agents, and outlining how such behavior is rationalized and understood by the wider group (Ley, 1988). According to Lofland (1976), the key aspect to performing an ethnographic analysis is to balance the role of being an active part of the selected community, while intermittently assessing emergent findings against existing and developing theory. In effect, ethnography reveals the relationship between behavioral intent, attitudes, and beliefs against actual behavioral patterns (Eyles, 1988).

Ethnography can be criticized as a valid methodological tool of analysis within social science based on its perceived lack of objectivity, the generalizability constraints, and how data are represented. However, Herbert (2000) has addressed each of these methodological concerns, justifying ethnography as a valid and effective analytical framework. Although conceding that interpretation may be overly subjective based on the nuances and biases of the ethnographer, Herbert (2000) emphasizes that all scientific methodologies are subject to interpretation by the researcher no matter how objective they at first appear. Put simply, 'objective' scientific methods, including measures of reliability and validity, are effectively social processes themselves. The culture of the specific scientific paradigm undoubtedly influences how data are interpreted.

There are also other advantages. Detailed logs provide a record of events and can be revisited after the event itself has finished. Screen captures can be taken and used as examples or related back to the logs (Wood & Griffiths, 2007). Several members of a research team can be used to gain different perspectives, to compare notes on paraphilic behavior and inter-observer reliability. Furthermore, results can be posted on bulletin boards and paraphiliacs can be asked to comment on the accuracy of the descriptions, and for any other observations that they may have. This also helps to empower the

participant and ensure that they are not so likely to be misrepresented. Despite these many advantages, and to this author's knowledge, no one in the paraphilia research community has used this method to collect data.

CONCLUSIONS

The overview provided here demonstrates that the utilization of a variety of online research methods can be a useful and practical way of examining many different aspects of paraphilic behavior. Online methods in all their varieties tend to provide a cost-efficient way of gathering paraphilic data that can have many benefits for both researchers and their study participants. However, researchers need to be aware that the characteristics of the paraphiliac may depend on the recruitment method used. No better example of this is from the research carried out on zoophilia. As Earls and Lalumiere (2009) correctly noted, paraphiliacs recruited via medical treatment centers will tend to show more general pathology. Paraphiliacs recruited from prison samples will tend to have greater criminal histories, and paraphiliacs recruited online will tend to show better adjustment and perhaps better intellectual skills. Basically, compared to psychiatric patients and inmates, those recruited online would be expected to be computer sophisticated and more open to discussing their sexuality.

Paraphiliacs' familiarity with Internet technology – particularly as being online is often the best way to meet and communicate with other like-minded people – along with the anonymity of the media, may facilitate and enhance such studies being undertaken. The main disadvantages of online methodologies (such as self-selecting samples, issues concerning reliability and validity) are no different to those encountered in more conventional offline research methodologies. It is envisaged that the application of rigorous online research protocols can help to keep such concerns down to acceptable levels. In the main, the most salient problems that online researchers in the field of paraphilic behavior are likely to face concern ethical issues (such as whether data collected online is 'public' or 'private'). Despite such ethical dilemmas, these are not insurmountable and can be remedied if careful thought is given.

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