Medication to Manage Sexual Arousal

Offender Personality Disorder pathway

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A Pathway of Services (short version)
MMSA – What is it?

• SSRIs or anti-libidinal medication
• For offenders who experience psychological difficulties and distress in the form of intrusive and obsessive thoughts about sex, compulsive sexual behaviour, compulsive masturbation, and very frequent sexual arousal, and for offenders in whom sexual arousal is associated with negative mood states.
• Can assist users to engage in offending behaviour programmes and services, or help them avoid high risk situations.
• Always offered within a psychologically informed framework
Who is it for?

- Offenders with a sexual element to their offending
- Over 18, men and women
- Who complain of:
  - sexual pre-occupation
  - high levels of sexual arousal
  - deviant sexual fantasy which is subjectively difficult to control
  - sex as way of coping with low mood or anxiety
- Completely voluntary
- Offered at an appropriate time in sentence
Psychological difficulties and distress including: Intrusive and obsessive thoughts about sex, deviant arousal or problem sexual behaviour associated with low mood or anxiety, sexual arousal or behaviour that is subjectively difficult to manage, high sex drive. Psychometrically determined sexual preoccupation.

<table>
<thead>
<tr>
<th></th>
<th>Low Symptom</th>
<th>Medium symptom</th>
<th>High Symptom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low risk of harm</td>
<td>Not indicated</td>
<td>Not indicated</td>
<td>Indicated</td>
</tr>
<tr>
<td>Medium risk of harm</td>
<td>Not indicated</td>
<td>Consider</td>
<td>Indicated</td>
</tr>
<tr>
<td>High risk of harm</td>
<td>Consider</td>
<td>Consider</td>
<td>Indicated</td>
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</table>

Risk of harmful sexual offending as measured by a suitable risk assessment (RM2000, OSP, or SARN)
Some basic principles of sexual arousal

• sex drive is biological
• no one chooses their sexual arousal profile
• difference between arousal and control of arousal
• attitudes & beliefs, emotional state, self-management, influence sexual behaviour
• the most important male sex organ is:
Sexual thoughts, drive

Emotional state

Attitudes, beliefs

Medication

Behavioural controls
Medication for sex offenders

medical treatment \( \vee \) social control

- some work with you
- some are ambivalent
- some don’t want to know

- consent
- confidentiality
The Neurobiology of Sexual Arousal
Hypothalamus

Gonadotropin hormone releasing hormone (GnRH)
Lutenising hormone (LH)
Follicle stimulating hormone (FSH)

THE REST OF THE BRAIN
5-HT

Hypothalamus

Pituitary

limbic system

Testes

Testosterone
~5% produced by adrenal glands

5-HT

T neg. feedback

dopamine
Testosterone reduces sexual interest more than sexual function
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<tr>
<th></th>
<th>Provera n=79</th>
<th>No Provera n=55</th>
<th>Not recom. n=141</th>
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<tbody>
<tr>
<td>sex recidivism</td>
<td>0</td>
<td>10 (18%)</td>
<td>21 (15%)</td>
</tr>
<tr>
<td>sex breech</td>
<td>1</td>
<td>12 (22%)</td>
<td>6 (4%)</td>
</tr>
<tr>
<td>in prison</td>
<td>0</td>
<td>11 (20%)</td>
<td>19 (13%)</td>
</tr>
<tr>
<td>‘doing well’</td>
<td>70 (89%)</td>
<td>24 (44%)</td>
<td>89 (63%)</td>
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</table>
GNRH agonists: Triptorelin (Rosler & Witztum, 1998)

n = 30

“hypersexual”: masturbate 32/week
fantasise 48/week
behaviour 5/month
failed on other Rx

dropout = 6 (20%)
{3 from side effects}
RESULTS
follow-up to 3 1/2 years

masturbation = 0-1 per week
deviant fantasies = 0
behaviours = 0 {except for 2 side effect drop outs}
reoffences = 0

testosterone reduction: 95%
LH reduction: 90%
bone mineral density: 40-50%
N=5
CBT for 2 years; luprolide year one, saline year two

Results
- decrease but no difference in ppg, Abel Screen
- all reported decreased in fantasies, urges and masturbation
- polygraph: at baseline and placebo, deceptive
anti-androgens side effects

- menopausal symptoms (hot flushes, depression, weight gain, cvs)
- gynaecomastia
- osteoporosis
- carbohydrate metabolism, other endocrine

GnRH side effect kinder?
SSRIs: the studies

decrease in strength and frequency of fantasies

decrease in sexual urges

decrease in masturbation

decrease in behaviours

delay in ejaculation
SSRIs: Mode of Action?

- OCD
- reduction in sex drive
- reduction in orgasmic enjoyment
- impulsivity
- mood enhancement
- all of the above
Evaluation of the use of MMSA - Belinda

Nottingham Trent University (SOCAMRU), HMP Whatton & Nottinghamshire Offender Healthcare

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Rebecca Lievesley
Helen Elliott
Dr Christine Norman
Jessica Faulkner
Dr Adarsh Kaul
Background

- Interventions with sex offenders in UK prisons are primarily psychological in nature, adopting a CBT approach.

- High levels of sexual preoccupation and hypersexuality in high risk offenders appears to interfere with engagement on psychological treatments, potentially resulting in poor outcome on programmes.

- Evidence suggests the potential for use of medical treatment in aiding the management and treatment of risk factors such as sexual preoccupation / obsession.

- This is important since sexual preoccupation (both in the offence chain and generally) is the most frequently occurring ‘strongly present’ risk factor in sex offenders.
Proportion of prisoners scoring ‘strongly present’ on most frequently occurring SARN risk factors

National Offender Management Service

- Obsession with sex (OC): ID 74%, non-ID 68%, Anti-libidinal 95%
- Obsession with sex (G): ID 56%, non-ID 55%, Anti-libidinal 89%
- Child abuse, supportive beliefs: ID 35%, non-ID 32%, Anti-libidinal 49%
- Inadequacy (OC): ID 33%, non-ID 42%, Anti-libidinal 49%
- Inadequacy (G): ID 34%, non-ID 42%, Anti-libidinal 64%
- Lack emotionally intimate relationship (OC): ID 40%, non-ID 41%, Anti-libidinal 47%
- Lack emotionally intimate relationship (G): ID 57%, non-ID 62%, Anti-libidinal 90%
- Impulsivity (G): ID 49%, non-ID 40%, Anti-libidinal 51%
- Poor problem solving (OC): ID 47%, non-ID 58%, Anti-libidinal 58%
- Poor problem solving (G): ID 73%, non-ID 69%, Anti-libidinal 89%
HMP Whatton holds approximately 840 adult males convicted of a sexual offence (or where there is a sexual element to their offence). It is one of the largest sex offender prisons in Europe. Forty-two percent have a sentence of more than four years.

- 46% are serving an indeterminate sentence including life sentence.

RM 2000 scores
- 37% high / very high
- 40% medium

HMP Whatton started offering MMSA in November 2009

- Drugs used
  - Fluoxetine, Paroxetine (SSRIs)
  - Cyproterone acetate (CPA, anti androgen)
  - Triptorelin (GnRH agonist)

- Treatment Pathway
• Clinical measures:
  – Captured at regular meetings between participants and Dr Kaul (prescribing psychiatrist)
  – Data collated during private therapeutic session
  – Used clinically to discuss and tailor medication
  – Data then transferred to research team where it is collated and organised systematically

• Psychometric measures:
  Dynamic measures (baseline pre-meds, then approximately every 3 months)
    – Sexual Compulsivity Scale (SCS)
      • 10 items; 1-4; used means i.e. between 1-4; ‘My desires to have sex have disrupted my daily life’
    – Hospital Anxiety and Depression Scale (HADS)
      • Scoring is 0-21 on each sub-scale; caseness 8/21
    – Severity Indices of Personality Problems (SIPP 118)
Time spent thinking about sex

Paired t-test shows significant drop between T0 and T3 for SSRI (t=8.53, 41, p=0.001)
Clinical measures: number of days masturbating per week

Number of days masturbate to orgasm

Time intervals in months

SSRI
AA
SSRI & AA

SSRI
AA
SSRI & AA

National Offender Management Service

NHS England
Clinical measures: number of days masturbating per week - all meds combined

Main effect of Time $F(3,147) = 31.82$ $p = 0.001$; $\eta^2 = .394$

Baseline - T1, $P = 0.001$
T1-T3 ns
T3-T6 ns
Results from sexual compulsivity scale

Figure 1: Mean Sexual Compulsivity Scores for participants taking medication to reduce sexual preoccupation: pre-medication (T0), three months post-medication (T3) and six months post-medication (T6).

Below the levels of ‘typical’ sex offenders
Sexual Compulsivity

Anti-libidinal group have significantly higher Sexual Compulsivity

- SC of main sex offender population at Whatton: 2.6
- Young sexually active students: 1.31

Bar chart showing:
- Male Sex Offenders: 1.45
- Medicated Male SOs (pre-meds): 2.6
- Male Students (single): 1.49
- Male Students (rel/s): 1.5
- Female Students (single): 1.29
- Female Students (rel/s): 1.31

National Offender Management Service
Personality and sexual offending

• Prevalence rate for PD in sexual offending populations varies between 94% (McElroy et al., 1999) and 33% (Fazel, Hope, O’Donnell & Jacoby, 2002) compared to general population of between 2-11%.

• Cluster B (dramatic) PDs appear to be more prevalent in rapists, and cluster C (anxious) PDs are thought to be more prevalent in child molesters.

• Research has found that problematic personality traits are a key predictor of sexual recidivism, especially when paired with a deviant sexual interest (Hanson & Morton-Bourgon, 2005).

• However very little empirical investigation has explored the link between SP and personality.

• The theoretical explanations of both SP and problematic personality share some similarities, particularly in relation to self-management factors. For example urge management/impulse control are considered to be problematic mechanisms in both PD and SP.
• The view that personality was not susceptible to change had serious implications for treatment attempts (Andrea et al., 2007).

• Research increasingly suggests that personality is more changeable or adaptive than previously believed (see Specht, Egloff & Schmukle, 2011).

• Adaptive personality functioning is considered to be a person’s ability to be able to adapt to the situation or environment in relation to their personality traits (Andrea et al., 2007). For example, learning to have control over one’s emotions and impulses.

• Maladaptive personality functioning refers to an individual’s inability to adapt their personality to the needs of the environment or situation (Andrea et al., 2007).
Researchers carried out the SIPP-118 questionnaire with individuals.

Standardised prompts were developed for those with lower understanding of the questions, and response options were presented verbally and in a visual format.

The first administration of the SIPP-118 occurred before medication was commenced (referred to as ‘baseline’) and this process was repeated approximately every three months after medication.
## Percentage of clinically significant change of participants between baseline and six months on SIPP-118 scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Baseline % of participants with maladaptive functioning N (69)</th>
<th>Six months % of participants with maladaptive functioning N (41)</th>
<th>% reliable change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional regulation</td>
<td>68.12</td>
<td>29.27</td>
<td>38.85</td>
</tr>
<tr>
<td>Effortful control</td>
<td>76.81</td>
<td>46.34</td>
<td>30.47</td>
</tr>
<tr>
<td>Frustration tolerance</td>
<td>62.32</td>
<td>26.83</td>
<td>35.49</td>
</tr>
<tr>
<td>Responsible industry</td>
<td>57.97</td>
<td>43.90</td>
<td>14.07</td>
</tr>
<tr>
<td>Aggression regulation</td>
<td>47.83</td>
<td>34.15</td>
<td>13.68</td>
</tr>
<tr>
<td>Intimacy</td>
<td>47.83</td>
<td>24.39</td>
<td>23.44</td>
</tr>
<tr>
<td>Enduring relationships</td>
<td>66.67</td>
<td>46.34</td>
<td>20.33</td>
</tr>
<tr>
<td>Self-respect</td>
<td>57.97</td>
<td>21.95</td>
<td>36.02</td>
</tr>
</tbody>
</table>
Prior to starting medication the research sample more closely resembled the clinical population (admissions to mental health institutes) than the general population on the SIPP-118.

The facets most problematic were effortful control, self-reflexive functioning, frustration tolerance, emotional regulation and stable self image.

Provides support for the hypothesis that the adaptive personality functioning in the domains of self-control and relationships, of sexually preoccupied males convicted of a sexual offence was more problematic than the general population norms.
Results – continued

• Both statistical and clinically significant change was observed in adaptive personality functioning on all scales by six months post medication. The percentage of reliable change of adaptive personality functioning was between 13.6% and 38.8%, moving functioning from the maladaptive range to the clinically ‘normal’ range (general population norms).

• The majority of participants had moved into the healthy range of personality functioning within six months of taking medication.

• The results add some tentative support for the second hypothesis that medication to treat SP improves adaptive functioning on personality areas linked to self-control and relationships.
How do OM and OSs feel about the use of MMSA?

- Qualitative study
- Participants were 12 OM/OSs
- Thematic analysis of semi-structured interview data
- Analysis: Two superordinate themes
  - The dangers of not knowing
    - Who is taking it?
    - Lack of trust
    - What happens next?
  - Treatment Awareness
    - Scepticism to optimism
    - Out of the loop
  - Mandatory vs voluntary
Qualitative research with prisoners

- Preliminary findings:
  - Reductions in the number and intensity of sexual thoughts and fantasies
  - Improvements in mood and concentration
  - Increased control over impulsive and/or compulsive behaviour – anger, OCD
  - Reduction in / loss of sexual arousal – implications?
  - Side effects and compliance issues
How do I access it for my prisoner?

• Community on a case by case basis, through the Offender Personality disorder service in your LDU

NOTE prisoner does not have to be screened into the pathway to access the medication!

• Frankland - HSE
• Isle of Wight – Cat B
• Hull – Sex offender PIPE
• Whatton – Cat C
• Usk – Cat C
• North Sea Camp – Cat D
• Leyhill – Cat D
Contacts – prison services

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# Contacts – OPD commissioners

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<thead>
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</tr>
</thead>
</table>
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                          | Jennie Slater, [jennie.slater@noms.gsi.gov.uk](mailto:jennie.slater@noms.gsi.gov.uk) |
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Questions?