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Gender differences in substance misuse and mental health amongst prisoners

Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

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Annex A

Surveying Prisoner Crime Reduction (SPCR) tables

Annex B

Resettlement Survey (RS) tables

Annex C

Offender Management Community Cohort Study (OMCCS) tables

Annex D

Offending, Crime and Justice Survey (OCJS) tables

1. Summary

This research explored substance misuse and mental health of male and female prisoners, using the Surveying Prisoner Crime Reduction (SPCR) longitudinal survey of 1,435 newly sentenced prisoners in England and Wales in 2005 and 2006. The sample consisted of 1,303 male and 132 female prisoners. Other surveys and management information were used as secondary sources. The research examined: drug and alcohol use; rates of self-harm and suicide; the presence of specific mental health disorders; and links to reconviction.

The number of women was relatively small (132), reflecting the relative size of the female prison reception population. Results based on the female prisoners' sample are less likely to be representative than those from the larger men's sample. The women's sample may be too small to allow some smaller gender differences to be detected. These limitations should be taken into account when interpreting the findings in this report.

The main findings were:

- Patterns of alcohol consumption did not differ substantially by gender. The rate of alcohol use overall amongst prisoners was slightly lower than in the general population, when comparing those who said they drank alcohol in the last year. However, amongst those prisoners who drank alcohol in the four weeks before custody, the amount of hazardous drinking was higher than in the general population and amongst offenders on community orders. Male and female prisoners both reported high levels of hazardous drinking (reporting drinking with similar frequency and consuming similar volumes of alcohol).
- Alcohol use amongst prisoners was associated with reconviction on release, although to a lesser extent than drug use. Associations between daily drinking and reconviction were observed for both male and female prisoners, and, notably, there was a higher reconviction rate amongst female binge drinkers (compared to female prisoners who did not binge drink). This association was not found amongst male prisoners.
- Rates of illegal drug use amongst both male and female SPCR prisoners were higher than for offenders on community orders, the general population, and an earlier prisoner survey (the 1997 Psychiatric Morbidity Survey (PsyMS)). There were no differences in the proportions of male and female SPCR prisoners

reporting ever having used drugs, nor were there any gender differences detected in overall drug use in the four weeks before custody.

- Female prisoners did however report more Class A drug use in the four weeks before custody than male prisoners, and were also more likely to report that their offending was to support someone else's (as well as their own) drug use.
- Drug use was strongly associated with reconviction on release from prison (this did not differ by gender).
- Reports of first use of heroin in prison by heroin users were lower in SPCR (covering interviews from 2005/6) compared with the 1997 PsyMS (19% and 30% respectively). Male and female SPCR heroin users were equally likely to report having used heroin in a prison before (55%), and there was evidence that male prisoners were more likely than female prisoners to use heroin for the first time in a prison.
- Female SPCR prisoners reported poorer mental health than both women in the general population and male SPCR prisoners. This was true in relation to self harm, suicide attempts, psychosis, and anxiety and depression.
- Female prisoners suffering from the combination of anxiety and depression were significantly more likely to be reconvicted in the year after release from custody compared to female prisoners without such symptoms (this relationship was not found amongst male prisoners). Both male and female prisoners suffering from depression were however more likely to be reconvicted in the year after release from custody.
- Male prisoners with symptoms of psychosis were more likely to be reconvicted in the year after custody. This relationship was not found amongst female prisoners, despite more female prisoners reporting symptoms indicative of psychosis.

There were some important differences between male and female prisoners' substance misuse and mental health, but also areas of similarity. The greatest differences were observed between the general population and the prisoner population rather than between male and female prisoners.

2. Context

2.1 Background

Previous research suggests that the problems and needs of female prisoners differ from those of male prisoners in several ways. One of the few surveys to focus on women prisoners highlighted higher rates of self-harm, mental disorders and substance dependence (Borrill et al., 2003). Previous studies have also highlighted that prisoner rehabilitation programmes fail to meet women's particular treatment needs (Gerstein and Johnson, 2000; Hollin and Palmer, 2006), and have found that women typically enter prison with more acute mental health and substance misuse profiles and are disadvantaged by programmes not adapted to their particular needs (Pelissier, 2004; Pelissier et al., 2003; Staton-Tindall et al., 2007). This is of particular concern because more acute problem profiles are associated with higher rates of offending, poorer health prognosis and lower retention in rehabilitation (Hser et al., 2003; Staton-Tindall et al., 2007).

The current report presents an assessment of the extent to which female prisoners differ from male prisoners in substance misuse and mental health, which has implications for the development of appropriate policies and interventions.

2.2 The current research

Surveying Prisoner Crime Reduction (SPCR), a large longitudinal cohort study of prisoners sentenced to between one month and four years in 2005 and 2006 in England and Wales, was conducted to identify prisoners' problems, determine how these were addressed during and after custody, and assess the combined effect of interventions on offending and other post-prison outcomes. The current report is one of a series using SPCR data.¹

While several large-scale surveys have examined specific issues amongst prisoners, such as mental health (Singleton et al., 1998) and criminal behaviour (Budd et al., 2005), SPCR is the first wide-ranging general purpose survey to use a prospective longitudinal design to describe the prisoner population and track progress across the course of their sentences and on release.

¹ Some of the figures in this report have already been published (MoJ, 2010c), as have a series of papers investigating: prisoners' childhood and family backgrounds (Williams et al., 2012a); the pre-custody employment, training and education status of newly sentenced prisoners (Hopkins, 2012); disability amongst prisoners (Cunniffe et al., 2012); homelessness and accommodation needs of prisoners (Williams et al., 2012b); and prisoners' criminal histories and proven re-offending after release (Boorman and Hopkins, 2012).

Aim

The aim of this research was to conduct a gender-based analysis of prisoners' characteristics and needs by exploring patterns of substance misuse and mental health, using SPCR as well as other sources.

Limitations

The SPCR Wave 1 sample is large overall (1,435 prisoners) but the number of women was relatively small (132), reflecting the relative size of the female prison reception population. Results based on the female prisoners sample are less likely to be representative than those from the larger men's sample. Furthermore, the women's sample may be too small to allow smaller gender differences to be detected. Only statistically significant differences between male and female prisoners ($p < 0.01$) are discussed.

3. Approach

The analysis presented in this report is based on Sample 1² of SPCR. Sample 1 consists of 1,435 adult prisoners sentenced to between one month and four years in custody in England and Wales in 2005 and 2006, and is representative of prison receptions for these sentence lengths.³ Details of the sampling and methodologies used are available in the Technical Reports (MoJ, 2012a; MoJ, 2012b). The SPCR sample consisted of 1,303 male prisoners and 132 female prisoners, and only included prisoners aged 18 and above. The majority (over 70%) of prisoners were between 21 and 39. The age profile was similar for male and female prisoners. The median age of prisoners was 28 years (ranging from 18 to 67 amongst male prisoners, and 19 to 62 amongst female prisoners).

The majority (84%) of both male and female SPCR prisoners reported their ethnicity as 'White British', 'White Irish' or 'any other White background'. The Black, Asian, and Minority Ethnic (BAME) background category included all other self-reported ethnicities. Of the prisoners from BAME backgrounds, most were Black or Black British Caribbean, Black or Black British African, and Mixed White and Black Caribbean (see Table A4 in Annex A for a more detailed breakdown of prisoners' self-reported ethnic backgrounds).

In June 2006, foreign national prisoners (FNP) comprised 14% of the total static population in prison. This differed by gender, with 14% of the male prison population and 21% of the female prison population made up of FNP (MoJ, 2012c). It was not possible to explore the nationality of SPCR prisoners as FNP subject to deportation were not eligible for inclusion in the survey.

Of the 1,435 prisoners in Sample 1, 1,331 prisoners were matched to the Police National Computer (PNC)⁴ for the one-year reconviction and criminal histories analysis, and 1,330 prisoners for the two-year reconviction analysis. Analysis of the matched and unmatched sub-samples showed that they were not significantly different from Sample 1 in terms of key variables.⁵ Reconviction in the year after release from prison was observed if an offence was recorded as being committed in the 12 months after release from custody, but conviction in

² A second sample, Sample 2, is representative of longer-term (18 months to four years) sentenced prison receptions. See the SPCR Technical Reports on the MoJ website for details: <http://www.justice.gov.uk>

³ More than 90% of prisoners entering prison in 2006 were sentenced to less than four years – Offender management caseload statistics (annual), available at: <http://www.justice.gov.uk/publications/statistics-and-data/prisons-and-probation/omcs-annual.htm>

⁴ 89 respondents subject to deportation were not included, nor were 15 for whom valid matches could not be found.

court for this offence may have occurred up to 18 months after release. Cautions were not included.⁶

In addition to SPCR data and the PNC, in order to illustrate possible changes over time or provide further background information, the report draws upon the 2001, 2003, and 2004 Resettlement Surveys (see Annex B); 2009/10 data from the Offender Management Community Cohort Study (OMCCS) (see Annex C), the General Lifestyle Survey (ONS, 2012), the 1997 Psychiatric Morbidity Survey (PsyMS) (Singleton et al., 1998), and the Offending, Crime and Justice Survey (Home Office, 2003) (see Annex D).⁷

⁵ Age, gender, sentence length.

⁶ The MoJ changed measure of reoffending in 2011 – cautions were now included, and the new measure was named ‘proven reoffending’. This report uses the pre-2011 measure (‘reconviction’), which did not include cautions, and which was reported when the SPCR results were first published in 2010, for consistency.

⁷ The British Crime Survey (which was renamed the Crime Survey in England and Wales in 2012), is another source of comparison with the general population, but for this research the Offending, Crime and Justice Survey (OCJS) was used due to a closer match between the questions asked and for consistency with other published SPCR reports. The findings of this research are consistent with the 2005/6 British Crime Survey findings on substance misuse (Roe and Man, 2006).

4. Results

This section presents the results of the analysis in two parts: substance misuse and mental health.

4.1 Substance misuse

Background

Drug users report engaging in much higher levels of criminal activity than non drug users (Gossop et al., 2000; Payne-James et al., 2005; Seddon, 2000; Seddon, 2006), and several studies have found that drug use appears to intensify, motivate and perpetuate offending behaviour (Allen, 2005). Levels of drug use are high amongst offenders, with the highest levels of use found amongst the most prolific offenders. Over half (52%) of all arrestees interviewed in the Arrestee Survey reported drug use in the month prior to arrest and 30% were dependent on heroin or crack cocaine (Boreham et al., 2007). Prisoner surveys have consistently found that a majority of prisoners report having used drugs prior to custody (Boys et al., 2002; Singleton et al., 2003).

There is also evidence of a link between alcohol misuse and offending (Richardson and Budd, 2003; Walker et al., 2006). The 2005/2006 Criminality Survey found that frequent drinkers were most likely to have committed a violent offence, with results suggesting that 'participation in violence, criminal damage and drug dealing increase with frequency of drunkenness' (Budd et al., 2005, p24). There has been less research on prisoners' alcohol use than there has been on drug use. However, analysis of 19,225 prison based Offender Assessment System (OASys) assessments from 2009/10 found that 19% of prisoners who received an OASys assessment were reported to have needs in relation to alcohol misuse (19% of male and 17% of female prisoners). Moreover, 36% of prisoners who received an OASys assessment were reported to have exhibited violent behaviour related to their alcohol use (37% of male prisoners and 27% of female prisoners). OASys needs assessments however are not carried out on all offenders as such these figures cannot be seen as representative of all male and all female prisoners.⁸

Levels of drug dependence amongst imprisoned women have been found to be higher than those amongst imprisoned men (Fazel et al., 2006; Hollin and Palmer, 2006; Langan and Pelissier, 2001; Singleton et al., 2003). Borrill et al.'s (2003) survey of 301 female prisoners

⁸ O-DEAT (2012). Unpublished. OASys Regional Risk Needs Profiles Probation 2009–10.

found that 72% had used at least one drug in the past year and that nearly half (49%) were dependent on at least one drug. Other studies have reported that female offenders become immersed in serious drug use faster and more deeply and are more likely to use hard drugs, especially heroin, crack cocaine and tranquillisers (Borrill et al., 2003; Langan and Pelissier, 2001).

Alcohol use

SPCR prisoners were asked about their patterns of alcohol use and whether they perceived this to be problematic. Overall, prisoners' rate of alcohol consumption was lower than that of the general population; 78% of SPCR prisoners (80% of male and 64% of female prisoners) reported drinking alcohol on at least one occasion in the previous 12 months compared with 83% of the general population (87% of men and 81% of women).

Of the SPCR prisoners who had consumed alcohol in the previous year, more male prisoners (87%) reported drinking alcohol in the four weeks before custody compared with female prisoners (75%). However, male and female prisoners who drank in the four weeks before custody reported drinking with similar frequency; both male and female prisoners drank alcohol on a median 12 days in the month before custody. Of those SPCR prisoners who reported drinking in the four weeks before custody, a third (32%) said they drank on a daily basis.

The Offender Management Community Cohort study (OMCCS) explored alcohol consumption amongst offenders on community orders. More male offenders reported drinking alcohol in the four weeks before interview compared with female offenders (71% and 61% respectively). For these offenders, alcohol was consumed on a similar number of days by both male and female offenders (a median of six days) and similar proportions reported drinking daily in the four weeks before interview (14%), a lower rate than that reported by SPCR prisoners. However male offenders on community orders reported consuming more alcohol (in units) on the days on which they drank, a median of eight units (compared to six units amongst female offenders on community orders).

The proportion of the general population who reported drinking on a daily basis (in the previous year) in the General Lifestyle Survey 2010 (ONS, 2012) was considerably lower

than amongst prisoners: 16% of men and 10% of women,⁹ and more similar to the offenders on community orders.

Male and female SPCR prisoners who reported drinking in the four weeks before custody reported consuming similar amounts of alcohol on days on which they drank, consuming a median of 12 units. This level of alcohol consumption was higher than recommended limits (three/four units for men and two/three units for women) and was indicative of binge drinking¹⁰ (NHS Choices, 2011). Using this measure, 63% of prisoners who drank alcohol in the four weeks before custody would be classified as binge drinkers.

Male and female SPCR prisoners who reported drinking daily in the four weeks before custody reported higher levels of consumption than prisoners who drank in the four weeks before custody (but not necessarily every day), drinking a median of 20 units per day. This level of consumption was equivalent to drinking four bottles of wine or ten pints of beer in a single day.¹¹

In the general population, men are more likely to drink alcohol and to consume greater quantities of alcohol than women (Jackson et al., 2010; ONS, 2012). Thirteen per cent of women and 19% of men who drank in the week before the interview in the general population reported drinking in excess of the binge drinking limit in a single day (General Lifestyle Survey – ONS, 2012). While not directly comparable due to the different reference periods, this is lower than the reported prisoner levels of binge drinking (63% of prisoners who drank in the four weeks before custody).

Because of recollection and social desirability bias, general household surveys are known to substantially underestimate actual levels of drinking, and especially levels of binge drinking (Stockwell et al., 2004). This means that the figures reported for the general population are likely to be lower than the actual proportion of heavy and binge drinkers in the population (Jackson et al., 2010), although these caveats may apply equally to the prisoner population.

⁹ The prison sample were asked about daily drinking in the month before custody, whereas the general population sample were asked about the previous year and previous week – though there appears to be good correspondence between the values. By comparing these results we are assuming the drinking patterns reported by prisoners in the four weeks before custody are representative of their behaviour in the year before custody.

¹⁰ NHS Choices define binge drinking as drinking six units in one day for women, and eight units in one day for men.

¹¹ Based on the assumption that one unit constitutes half a pint of beer, a glass of wine or a single measure of spirit or liqueur, and a bottle of wine constitutes six units.

Nineteen per cent of SPCR prisoners (who drank alcohol in the year before custody) reported needing help for an alcohol problem (this rose to 22% of prisoners who reported drinking in the four weeks before custody). There were no differences between the proportion of male and female prisoners who reported needing help for an alcohol problem, nor in the amount of help they reported needing. Those prisoners who had drunk alcohol in the four weeks before custody were questioned about concerns they had in relation to their drinking. Nearly half of them (46%) reported having some concern about their drinking.

Drug use

SPCR prisoners were asked about their use of ecstasy, LSD, heroin, crack cocaine, cocaine, and methadone (Class A drugs), and about amphetamines, cannabis, and tranquillisers (Class B/C) before custody.

Most SPCR prisoners (81%) reported having taken illegal drugs at some point in their lives. Seventy-seven per cent of sentenced prisoners in the 1997 PsyMS reported ever having used illegal drugs.¹² These figures compare with 79% of offenders serving community sentences (in OMCCS) and around one-third (34%) of the general household population reported in the OCJS.¹³ Responses to questions about lifetime (ever) use of drugs, in SPCR, the PsyMS, and comparisons, where relevant, from the OCJS and OMCCS are shown in Table 3.2.

There was no difference in the rate of male and female SPCR prisoners reporting ever to have used drugs (81%), nor were any gender differences detected in drug use in the four weeks before custody: 64% of prisoners reported having used drugs during this period. A higher proportion of male offenders on community orders (80%) reported ever having used illegal drugs compared with female offenders on community orders (73%). However, there were no differences in the proportions of offenders on community orders having used any illegal drug (overall) in the four weeks before interview (37%).

Cannabis was the most frequently reported drug ever used across all populations surveyed. Seventy-one per cent of SPCR respondents reported having ever used cannabis. This was followed by cocaine (45%) and crack cocaine (43%). Amongst offenders on community

¹² Respondents to the Psychiatric Morbidity Survey (PsyMS) were asked about use of cannabis, heroin, non-prescribed methadone, amphetamines, crack, cocaine (powder), unprescribed tranquillisers, solvents, and 'other' drugs.

¹³ Respondents to the Offending, Crime and Justice Survey (OCJS) were asked specifically about their use of amphetamines, cannabis, cocaine, crack, ecstasy, LSD/magic mushrooms, amyl nitrate, and glues.

orders cannabis was the most frequently reported drug ever used (by 72% of offenders), followed by cocaine (48%) and ecstasy (40%). Thirty-two per cent of respondents in the general population (as measured by the OCJS) reported ever using cannabis, followed by amphetamines (11%) and LSD/ecstasy (8%).

Changes in drug use over time

The patterns of drug use amongst prisoners may have changed over time. While the proportion of male prisoners ever using drugs remained constant (at 81%), the proportion of female prisoners reporting ever having used drugs was higher amongst the female prisoners in the SPCR sample (who were interviewed in 2005 and 2006) than in the 1997 PsyMS, at 77% and 69% respectively. Amongst female prisoners, only cannabis was reportedly used by fewer prisoners in 2005/6 compared with 1997 (63% and 65% respectively). For male prisoners, cannabis was also reportedly used by fewer prisoners in 2005/6 than in 1997 (72% and 79% respectively); this was accompanied by lower reported use of amphetamines (from 49% to 41%), unprescribed tranquillisers and unprescribed methadone (each down by one percentage point).

Table 4.1: Surveying Prisoner Crime Reduction (SPCR), Psychiatric Morbidity Study (PsyMS), Offending, Crime and Justice Survey (OCJS) and Offender Management Community Cohort Study (OMCCS): drug use ever, by gender¹⁴

Drug	SPCR (2005/6)			PsyMS (1997)			OCJS (2003)			OMCCS (2009/10)		
	% of responses			% of responses			% of responses			% of responses		
	Male	Female	Total	Male	Female	Total ¹⁵	Male	Female	Total	Male	Female	Total
Cannabis	72	63	71	79	65	74	37	27	32	73	62	72
Cocaine	45	38	45	40	30	37	10	5	7	50	36	48
Crack cocaine	42	58	43	28	30	29	1	1	1	29	29	29
Ecstasy	42	36	42	n/a	n/a	n/a	10	6	8	42	29	40
Amphetamines	41	40	41	49	40	46	14	9	11	36	33	36
Heroin	39	55	40	36	34	35	1	<1	1	25	29	26
LSD	30	24	29	n/a	n/a	n/a	11	6	8 ¹⁶	31	18	29 ¹⁷
Unprescribed tranquillisers	27	36	28	28	26	27	n/a	n/a	n/a	23	25	23
Unprescribed methadone	20	27	20	21	21	21	n/a	n/a	n/a	16	17	16
None of the above	19	23	19	19	31	23	61	71	66	20	27	21 ¹⁸
Any illegal drug	81	77	81	81	69	77	39	29	34¹⁹	80	73	79
Base sizes	1,300	132	1,432	1,121	584	1,705	3,466	3,910	7,376²⁰	2,178	415	2,593²¹

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¹⁴ See Annexes for statistically significant differences.

¹⁵ Derived from male and female percentages and base sizes.

¹⁶ OCJS participants were asked about LSD, acid, and magic mushrooms.

¹⁷ Includes other hallucinogens (e.g. mushrooms, and ketamine).

¹⁸ Not tried any illegal drugs.

¹⁹ Includes amyl nitrates and glues.

²⁰ Unweighted base size. Weighted base size: 8,639.

²¹ Unweighted and weighted base size; 2, 595.

The 64% of SPCR prisoners who stated they had used drugs in the four weeks before custody were asked if they had injected drugs during this period and also if they had ever overdosed. Just under one-third (30%) of these reported having injected drugs, and 27% reported that they had ever overdosed. The 1997 PsyMS reported that 21% of male prisoners and 18% of female prisoners had ever overdosed.

Class A and Class B/C drug use

Around two-thirds of the SPCR sample (64%) had ever used Class A drugs and nearly three-quarters (74%) reported ever having used Class B and/or Class C drugs, with no reported differences between male and female prisoners.

Sixty-one per cent of offenders on community orders (in the OMCCS) had ever used Class A drugs, with male offenders more likely to have ever used these drugs than female offenders (62% compared to 55% respectively). Male offenders on community orders were also more likely to report ever having used Class B and/or C drugs (75% compared to 67% of female offenders on community orders).

Female prisoners were more likely to report having used Class A drugs in the four weeks before custody than male prisoners (58% compared with 43%).²² Male and female SPCR prisoners were equally likely to report having used Class B and/or C drugs in the four weeks before custody (52%).²³

In the general household population, reported in the OCJS, 13% responded that they had ever used Class A drugs, with men more likely than women to report that they had done so (16% compared with 9%).

Crack cocaine and heroin use

Borrill et al.'s (2003) survey of female prisoners asked about lifetime history of drug use. Around one-third (31%) said they had ever injected drugs, half (50%) said they had ever used crack cocaine and just under half (49%) said they had ever used heroin.

²² Of the total sample (not just drug-using prisoners). See table A45. Class A drug use was calculated using the sum of 'Class A and B and/or C drug use' and 'Class A use only', in the four weeks before custody. Female prisoners were around twice as likely as male prisoners to use 'Class A drugs only' in the four weeks before custody (21% compared with 11%). Male prisoners were around twice as likely as female prisoners to use 'Class B and/or C drugs only', in the same period (20% compared with 9%).

²³ Of the total sample (not just drug-using prisoners). See table A45. Class B and/or C drug use was calculated using the sum of 'Class A and B and/or C drug use' and 'Class B and/or C use only', in the four weeks before custody. Male prisoners were around twice as likely as female prisoners to use Class B and/or C drugs only, in the same period (20% compared with 9%).

Forty-two per cent of male SPCR prisoners and 58% of female SPCR prisoners reported ever using crack cocaine, compared with less than one-third (28% males and 30% females) of prisoners in the 1997 PsyMS. One per cent of respondents in the general population (as measured by the OCJS) reported ever using crack cocaine. Reported median age of first use was 21 years in each of the PsyMS and SPCR, with no differences between male and female prisoners. The median age of first use was 24 years amongst OCJS respondents.

Forty per cent of SPCR prisoners (39% of male prisoners and 55% of female prisoners) reported ever using heroin, compared with just over one-third (36% males and 34% females) of PsyMS respondents. One per cent of respondents in the general population (as measured by the OCJS) reported ever using heroin. Male and female SPCR prisoners reported starting using heroin at the same age (median = 20 years). The median age of first use of heroin reported in the PsyMS was 21 for male prisoners and 19 for female prisoners. The median age of first use was 20 years amongst OCJS respondents.

Eighty-three per cent of SPCR prisoners who reported ever using heroin, reported using it in the 12 months before custody, and 90% of these reported using it in the four weeks before custody. Amongst prisoners who had used heroin in the four weeks before custody, levels and patterns of use were similar. Men and women were equally likely to smoke/chase the drug (56%), inject it (53%), snort/sniff it (2%), and/or swallow it (1%). Most had used the drug on a daily basis (82%). Of those prisoners who used heroin in the four weeks before custody, and reported the amount of money they spent per day on heroin in this period (236 men and 52 women), women spent more per day on heroin than men (median £50 compared with median £30).

Nearly two in five (19%)²⁴ of those prisoners who said they had ever used heroin reported having used heroin for the first time in a prison (8% of all prisoners in the SPCR sample). This compares with around 30%²⁵ of prisoners who had ever used heroin in the 1997 PsyMS (36% of male prisoners and 18% of female prisoners), and over a quarter (26%) of prisoners²⁶ who had ever used heroin in a 1995 survey (Boys et al., 2002). Over half (55%) of SPCR male and female heroin users reported using heroin in prison (whether for the first time or not). Male SPCR prisoners who reported using heroin in prison before were more

²⁴ 108 respondents reported that they had used heroin for the first time in a prison before, out of 579 respondents who said they had ever used heroin.

²⁵ Calculated using weighted average of 36% of 397 male sentenced prisoners and 18% of 196 female sentenced prisoners.

²⁶ Both sentenced and remand prisoners.

likely to report having used heroin for the first time in a prison (38%) compared with female prisoners who reported the same (10%).²⁷ This suggests that male prisoners were more likely to initiate heroin use in prison than female prisoners, a result which is supported by previous research (Singleton et al., 1998; Boys et al., 2002).

Cannabis

Most SPCR, PsyMS, and OMCCS respondents reported having ever used cannabis (71%, 74%, and 72% respectively), compared with 32% of OCJS respondents in the general population. Of these SPCR prisoners, 77% reported using it in the year before custody, and of these, 85% reported using it in the four weeks before custody. Just over half (51%) of male and female SPCR prisoners who reported using cannabis in the four weeks before custody, reported using it daily during this period.

Thirty-two percent of OCJS respondents in the general population reported having ever used cannabis, and of them nearly one in five (19%) reported using cannabis in the four weeks before interview. Men (22%) were more likely to report using cannabis than women (15%) during this period. The median age of first use of cannabis reported by SPCR respondents, both male and female, was 14 years; it was 15 years for male and 16 years for female prisoners in the PsyMS, and 18 years for OCJS respondents.

Female SPCR prisoners were more likely than male prisoners to report that they needed help with a drug problem (49% compared with 29%) on entry to prison. Higher levels of concern amongst women, despite similar levels of substance misuse, have been widely reported in the addiction literature (Langan and Pelissier, 2001; Staton-Tindall et al., 2007).

Of the SPCR prisoners who reported that they had ever used drugs, similar proportions of male and female prisoners reported being treated for a drug problem in the year before custody (62%) and the four weeks before custody (54%).

Self-reported associations between drug use and offending

A 2003 Home Office survey (Liriano and Ramsay, 2003) found that 55% of male prisoners said that the offences they committed were related to their drug taking.

²⁷ Only four female SPCR prisoners reported using heroin for the first time in prison, therefore this figure should be interpreted with caution.

SPCR included several questions about prisoners' perceptions of whether and, if so, in which ways their drug use was connected to their offending for those who reported having ever used drugs (n=1,157). Female prisoners were more likely to associate drug use with their offending than male prisoners on almost every question asked (Table 4.2).

Table 4.2: SPCR prisoners: connections between drug use and offending, by gender (statistically significant²⁸ (S) or not statistically significant (NS) where indicated)

Question: 'Thinking of the offence(s) that you committed in the 12 months before you came into custody...	Did not answer	Male		Female		Total	
		No.	% 'Yes'	No.	% 'Yes'	No.	% "Yes"
... had you used any illegal drugs when you committed this/any of them? (S)	8	1,048	55%	101	68%	1,149	56%
... did you commit this offence/any of these offences in order to get money to buy drugs? (S)	8	1,048	38%	101	66%	1,149	41%
... did you commit this offence/any of these offences in order to obtain drugs directly? (NS)	16	1,041	25%	100	36%	1,141	26%
... how much would you say that your offending was connected with your drug use (always)? (S)	8	1,048	28%	101	50%	1,149	30%
... did you commit this offence/any of these offences in order to support the drug use of someone else? (S)	0	850	22%	82	48%	932 ²⁹	24%

Nearly half of the female SPCR prisoners (48%) but only just over one-fifth of male SPCR prisoners (22%) reported having committed offences to support someone else's drug use. This is consistent with previous research on how relationships influence men and women's drug use and offending. Cohabitation and marriage have been shown to promote desistance amongst male prisoners (Visher et al., 2009). Male prisoners who return to live with their partners are less likely to relapse to substance misuse and reoffend, while the opposite is true for women (Walitzer and Dearing, 2006).

Surveys and interviews with female offenders have found that half of women who inject drugs were initiated into doing so by their partners, while this was the case for only 10% of men (Borrill et al., 2003); female prisoners are more likely to be in relationships with partners who use drugs, commit crime and trigger relapse and reoffending (Hollin and Palmer, 2006; Hser et al., 2003).

Links between drug use and anxiety/depression

Previously published research from the SPCR has demonstrated that prisoners who reported having used drugs were more likely to score positively on a scale indicating the presence of

²⁸ At p < 0.01.

anxiety and depression (Cunniffe et al., 2012). Twenty-nine per cent of prisoners who reported recent drug use indicated that they suffered from anxiety and depression, compared with 20% of those who did not report recent drug use. For female prisoners, these figures increased to 52% and 43% respectively. Reported drug use of prisoners and the general population has been associated with mental health issues in previous studies (e.g. Singleton et al., 1998).

Interventions and treatment in custody

Data from the Resettlement Surveys (see Annex B) found that female prisoners (in adult establishments) were more likely to attend an accredited drugs programme in custody (37% compared with 25% of male prisoners in adult establishments) and were more likely to report receiving treatment (e.g. methadone replacement) for drug or alcohol problems in custody (52% of female prisoners compared with 33% of male prisoners). Waves 2 and 3 of SPCR (which questioned prisoners nearing release and in the community) will allow for further exploration of the type of support received during custody and outcomes on release.

4.2 Mental health

The prevalence of mental health disorders is known to be higher amongst prisoners than in the general population (Brooker et al., 2008; Singleton et al., 2003). Evidence that female prisoners suffer from higher levels of mental illness than male prisoners (Singleton et al., 2003) has been used to suggest that male and female offenders should be treated differently (Carlen and Worrall, 1987).

One of the few surveys to focus on female prisoners found histories of childhood abuse, repeated traumatic experiences, ongoing trauma symptoms combined with higher rates of self-harm, mental disorders and substance dependence amongst the sample (Borrill et al., 2003). Previous analysis of SPCR also found high levels of childhood abuse and witnessing violence at home (as children) amongst prisoners, with more female than male prisoners reporting each of these issues (Williams et al., 2012a).

Suicide and self-harm

Rates of self-harm and attempted suicide are known to be higher amongst female than male prisoners (Liebling and Maruna, 2005). Singleton et al (1998) found female prisoners to be more likely to have ever attempted suicide (37% of sentenced prisoners) and to have

²⁹ 225 respondents were not asked this question in error. The resulting sub-sample may therefore be biased.

attempted suicide in the last year (16%), compared with male prisoners (20% and 7% respectively). Borrill et al (2003) found that 46% of female prisoners had attempted suicide at some point in the past. Similarly, 46% of female SPCR prisoners reported having attempted suicide – more than twice the rate of male prisoners (21%). This is higher than in the general population, amongst whom around 6% reported having attempted suicide at some point in their lives (McManus et al., 2009). Women in the general population were also more likely to have attempted suicide than men (around 7% compared with around 4%) (McManus et al., 2009). Men in the general population are however more likely to die as a result of suicide. In 2009 the suicide rate amongst the general population was 11 per 100,000 for men, compared to 3 per 100,000 for women (NCCMH, 2012). Men who self-harm are also more than twice as likely to die by suicide as women who self harm (NCCMH, 2012).

About one-fifth (21%) of female SPCR prisoners reported having made a suicide attempt in the year before custody – three times the rate reported by male prisoners (7%). This can be compared with the less than 1% of the general population who stated that they had attempted suicide over the previous year (McManus et al., 2009).

A third of SPCR female prisoners (33%) reported having suicidal thoughts in the four weeks before custody compared with 14% of male prisoners.³⁰ Female prisoners were also more likely than male prisoners to report ever having self-harmed (29% compared with 13%). This is higher than the general population, where less than 5% stated that they had ever engaged in self-harm (McManus et al., 2009).

Ministry of Justice statistics indicate that a higher proportion of female prisoners (in the general prison population) than male prisoners self-harmed while in custody in 2006 (30% compared with 6%). However, male self-harm incidents were more than four times as likely to result in attendance at an external hospital; in 2006, 8% of male self-harm incidents required hospital attendance compared to 2% of female incidents (MoJ, 2012e).

Anxiety and depression

SPCR assessed the prevalence and severity of anxiety and depression symptoms using the psychological health subscale of the Maudsley Addiction Profile (MAP) (Marsden et al., 1998). Prisoners were asked how often they had experienced particular feelings in the four weeks before custody. Symptoms indicative of anxiety were: feeling tense and keyed-up;

³⁰ Composite of 'sometimes', 'often' or 'always' – excluded 'rarely' to be consistent with measures reported below. With 'rarely' included the proportions are 44% of female prisoners and 21% of male prisoners.

suddenly scared for no reason; feeling fearful, nervousness or shakiness inside; and spells of terror or panic. Symptoms indicative of depression were: feeling hopeless about the future; feelings of worthlessness; no interest in things; feeling lonely; and thoughts of ending (their) life.³¹

A score of 12.5³² on either the anxiety or depression subscale was considered indicative of anxiety or depression. Nearly half (49%) of the SPCR sample was assessed as being at risk of suffering from anxiety **and/or** depression, with one-quarter being at risk of anxiety **and** depression (Cunniffe et al., 2012). Forty-nine per cent of female SPCR prisoners were assessed as suffering from anxiety **and** depression, compared with 23% of male prisoners. Considering each condition separately, 61% of female prisoners were indicated as suffering from anxiety compared with 33% of male prisoners, and 65% of female prisoners were indicated to be suffering from depression compared with 37% of male prisoners. This can be compared with 16% of the general population (12% of men, and 19% of women) who were estimated to be suffering from different types of anxiety and depression (McManus et al., 2009).

Psychotic symptoms

Items from the Psychosis Screening Questionnaire (PSQ) (Bebbington and Nayani, 1995) were embedded in SPCR. The PSQ enquires about mania, thought insertion, paranoia, strange experiences and hallucinations in the 12 months before custody. Each of these symptom domains contains an initial probe question, followed by one or two more targeted questions. Respondents must answer positively to all questions within a symptom domain to screen positively for that item. To indicate possible psychosis, respondents needed to score positively on two or more symptom domains.³³

Based on the PSQ, 16% of SPCR prisoners reported symptoms indicative of psychosis. This was considerably higher than the approximately 6% of the general population who reported one or more³⁴ psychotic symptoms (as measured by³⁴ the PSQ) (Johns et al., 2004). Other

³¹ Responses were rated on a five-point Likert scale (never, rarely, sometimes, often, always; where 1 = never). These were re-coded into positive ('often' or 'always' experienced in the four weeks before custody) and negative ('never', 'rarely' or 'sometimes' experienced in the four weeks before custody).

³² Respondents' answers were scored on a scale of 1–5 (where 1 = never) for each of the five questions on each scale, resulting in a total maximum score of 25. Risk of anxiety was then calculated as "yes/no" (with "yes" being a score of 12.5 or more). Anxiety and depression was indicated when respondents scored at least 12.5 on each item, and anxiety or depression was indicated if they scored at least 12.5 on one item.

³³ This is the same methodology as used in the Collaborative Study of Homeless People (CoShoPe) conducted by the Universities of Kent and Cardiff. <http://www.kent.ac.uk/chss/socialexclusion/seeds/methodology.html>

³⁴ Johns et al.'s 6% was derived using a less conservative measure than this research.

research also indicates that the prevalence of psychosis is much higher in prisons than in the general population (Brugha et al., 2005; Singleton et al., 1998).

Female SPCR prisoners were more likely to report symptoms indicative of psychosis (25%) compared to male SPCR prisoners (15%). However, this gender difference was not consistent across all symptom domains. More female prisoners reported thought insertion, strange experiences and hallucinations but the proportion of prisoners reporting paranoia and mania did not differ by gender (see Tables A77–82 in Annex A). It is not known how the experience of imprisonment may exacerbate paranoia and other symptoms of psychosis.

Mental health treatment need and history

SPCR prisoners were asked about whether they had received any treatment for mental health problems in the year before custody and whether they believed they needed help with such problems at the time of the survey. More female prisoners (49%) said they needed help for mental health problems, than male prisoners (18%). This included 31% of female prisoners who said they needed a lot of help (compared with 10% of male prisoners who felt they needed a lot of help).

Forty-two per cent of SPCR prisoners said they received treatment or counselling in the year before custody for any health or medical problems. Of these, more female prisoners (57%) received treatment or counselling for a mental health problem than male prisoners (48%). This equates to over a quarter (26%) of all female prisoners in the SPCR sample, and more than one sixth (16%) of all male prisoners in the SPCR sample, being in receipt of treatment for a mental health problem in the year before custody.³⁵

Amongst those SPCR prisoners who received treatment or counselling for a mental health problem in the year before custody there were no gender differences in the proportion who reported being prescribed psychiatric medication before custody (72% of those receiving treatment for a mental health problem, and 12% of the overall sample).

³⁵ Prisoners were asked whether they received any treatment or counselling for physical problems, mental problems or both in the year before custody. Those reported as receiving treatment or counselling for mental health problems are comprised of prisoners reporting treatment for either mental health problems only or both physical and mental health problems.

4.3 Reconviction in the year after release from custody

Over half (52%) of the SPCR sample was reconvicted of at least one offence within 12 months of their release from custody, and there was no difference in reconviction rates amongst male and female prisoners.

Reporting drinking alcohol every day in the four weeks before custody was associated with increased reconviction in the year after release from custody: 62% of those who reported drinking alcohol every day in the four weeks before custody were reconvicted, compared with 49% of those who did not report this (MoJ, 2010b). However, there was no difference between male and female prisoners who were daily drinkers in terms of being reconvicted.

SPCR prisoners who reported drinking enough in the four weeks before custody to be classified as binge drinkers were more likely to be reconvicted in the year after release compared with non-binge drinkers (54% reoffended compared to 46% who did not binge drink). However on further exploration this association was only true for female prisoners, with 75% of female prisoners who binge drank being reconvicted in the year after custody compared with 37% of those who did not binge drink.

Drug use amongst SPCR prisoners has been previously found to be strongly associated with reconviction on release, with the rate of reconviction more than doubling for prisoners who reported using drugs in the four weeks before custody compared with prisoners who had never used drugs (62% compared with 30%) (MoJ, 2010b). However, there was no difference in the rate of reconviction between male and female prisoners who reported using drugs in the four weeks before custody. There was also no difference in the rate of reconviction between male and female prisoners who reported having used any Class A drug in the four weeks before custody (68% compared with 39% for those who did not report using any Class A drug during the same period).

Male and female prisoners' substance misuse and reconviction followed different patterns, therefore: although drinking every day in the four weeks before custody was associated with increased reconviction on release, there were no gender differences in reconviction. However, when those who drank in the month before custody were classed into binge drinkers and non-binge drinkers, there was a difference in the rate of reconviction of male and female prisoners: binge-drinking women were more likely to be convicted of a further offence than binge-drinking men.

Although drug use patterns were different amongst male and female prisoners, there was no difference between male and female drug users in terms of reconviction.

Previous reports have found that SPCR prisoners suffering from anxiety and depression were more likely to be reconvicted in the year after release from custody (59% of those at risk of anxiety and depression were reconvicted, compared with 50% of those not at risk) (Cunniffe et al., 2012). However, whilst female prisoners suffering from anxiety and depression were more likely to be reconvicted in the year after release from custody (69% compared with 40%), this was not true for male prisoners. Moreover, whilst both male and female prisoners suffering from depression were more likely to be reconvicted in the year after release from custody, symptoms of anxiety were not associated with higher reconviction rates amongst either male or female prisoners. The analysis suggests it is the risk of depression (rather than anxiety) which underpins the association with reconviction.³⁶

The difference in reconviction rates amongst prisoners with depression was more marked amongst female prisoners. Sixty-six per cent of women with depression were reconvicted within one year, compared with 31% without these symptoms. Amongst male prisoners 61% of those with symptoms of depression were reconvicted compared with 47% of those without.

Male prisoners with symptoms indicative of psychosis were more likely to be reconvicted in the year after custody (60% with symptoms were reconvicted compared to 50% of male prisoners without such symptoms). Interestingly, despite more female prisoners reporting symptoms indicative of psychosis, there was no difference in the reconviction rate of female prisoners according to the presence of psychotic symptoms.

There were no significant differences for either male or female prisoners in reconviction rates according to whether they stated they had received treatment or counselling for a health or medical problem. However, male prisoners who stated that they needed help for a mental health problem were more likely to be reconvicted than those who did not (60% compared with 50%). This was not true for female prisoners.

³⁶ This finding was confirmed by a logistic regression model in which only depression was a significant correlate of reoffending when anxiety, depression and anxiety * depression were entered into the model.

5. Conclusion and implications

Substance misuse and mental health were found to be issues for prisoners overall to a greater extent than for the general population. The analysis of SPCR data found similarities between male and female offenders' substance misuse and mental health needs, but also indicated some important gender differences in terms of mental health overall and the types of drugs used in the month before custody.

- Patterns of alcohol consumption did not differ substantially by gender. The rate of alcohol use overall amongst prisoners was slightly lower than in the general population, when comparing those who said they drank alcohol in the last year. However, amongst those prisoners who drank alcohol in the four weeks before custody, the amount of hazardous drinking was higher than in the general population and amongst offenders on community orders. Male and female prisoners both reported high levels of hazardous drinking (reporting drinking with similar frequency and consuming similar volumes of alcohol).
- Alcohol use amongst prisoners was associated with reconviction on release, although to a lesser extent than drug use. Associations between daily drinking and reconviction were observed for both male and female prisoners, and, notably, there was a higher reconviction rate amongst female binge drinkers (compared to female prisoners who did not binge drink). This association was not found amongst male prisoners.
- Rates of illegal drug use amongst both male and female SPCR prisoners were higher than for offenders on community orders, the general population, and an earlier prisoner survey (PsyMS). There were no differences in the proportions of male and female SPCR prisoners reporting ever having used drugs, nor were there any gender differences detected in overall drug use in the four weeks before custody.
- Female prisoners did however report more Class A drug use in the four weeks before custody than male prisoners, and were also more likely to report that their offending was to support someone else's (as well as their own) drug use.

- Drug use was strongly associated with reconviction on release from prison (this did not differ by gender).
- Reports of first use of heroin in prison by heroin users were lower in SPCR (covering interviews from 2005/6) compared with the 1997 PsyMS (19% and 30% respectively). Male and female SPCR heroin users were equally likely to report having used heroin in a prison before (55%), and there was evidence that male prisoners were more likely than female prisoners to use heroin for the first time in a prison.
- Female SPCR prisoners reported poorer mental health than both women in the general population and male SPCR prisoners. This was true in relation to self harm, suicide attempts, psychosis, and anxiety and depression.
- Female prisoners suffering from the combination of anxiety and depression were significantly more likely to be reconvicted in the year after release from custody compared to female prisoners without such symptoms (this relationship was not found amongst male prisoners). Both male and female prisoners suffering from depression were more likely to be reconvicted in the year after release from custody.
- Male prisoners with symptoms of psychosis were more likely to be reconvicted in the year after custody. This relationship was not found amongst female prisoners, despite more female prisoners reporting symptoms indicative of psychosis.

Developing gender-specific policies to address mental health issues could be appropriate. In particular, policies to address self-harm amongst women prisoners, could be, and frequently are, considered a priority. Mental health issues were associated with reconviction, even if the association was not as strong as with substance misuse (particularly drugs). The higher use of Class A drugs for female prisoners in the four weeks before custody and the prevalence of offending to support someone else's drug use are of particular note. This may indicate that treatment of substance misuse (and in particular Class A drug use) may not on its own be sufficient to address female prisoners' offending behaviour, without also addressing issues related to their relationships (and the reasons for offending to support others' drug use as well as their own).

These findings do not tell us whether gender-specific policies and interventions are more effective in addressing substance misuse and mental health needs amongst prisoners, which is an important future research question. However, the findings do tell us that the substance misuse and mental health needs of both male and female prisoners are greater than for the general population, and that there are certain differences between male and female prisoners in terms of substance misuse and mental health issues.

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