Abstract

**Background** In England and Wales, women in prison make up a minority (<5%) of the total custodial population, yet acts of self-harm are around five times more common among incarcerated women. Whilst there has been a multiagency effort to improve how acts of self-harm are documented across prisons, the patterns and functions of self-harm for women in prison have not yet been fully addressed.

**Aims** To determine patterns, prevalence, and functions of self-harm among women in prison through a mixed-methods study.

**Method** 108 women with a history of self-harm were interviewed across three female prisons. Participants completed a structured questionnaire detailing their experiences of self-harm across prison and community settings.

**Results** We found that women in prison who frequently self-harmed disclosed high levels of trauma: past experiences of domestic violence (81.5%), childhood sexual abuse (66.7%) and adult sexual abuse (60.2%). Prevalent methods of recent in-prison acts of self-harm involved cutting, followed by ligaturing.

**Limitations** The study utilised cross-sectional design, self-reported data and featured a subset of women identified at high-risk of self-harm.

**Conclusion** Motivations behind acts of self-harm by women in prison are complex. Triggers appear to be past trauma, deteriorating mental health and separation from children or family.

**Keywords** Self-harm, women, prison, trauma, forensic
Background

Self-harm is a key public health concern because of its associations with physical injury and increased lifetime suicide risk (Hawton, et al., 2014). The forensic population has been identified as a vulnerable group (Walker & Towl, 2018) particularly with respect to their use of high-risk, often lethal, self-harming behaviours. Data provided by the Ministry of Justice demonstrated that, in 2018, women in prison had significantly higher documented rates of self-harm compared to men — 2,244 incidents per 1,000 women vs. 467 per 1,000 men. Despite women making up a minority of the total custodial population (< 5%), the prevalence of self-harm has been estimated to be between five times higher in female prison estates.

Several studies have established that women in custody have often experienced traumatic (Towl & Crighton, 1998; O'Brien, et al., 2003; Jenkins, et al., 2005) physical and mental health experiences prior to incarceration. On entering prison, many have experienced chaotic lifestyles involving substance misuse, mental health problems, homelessness and multiple sources of past trauma (Ministry of Justice, 2018). Research exploring the functions of self-harm for women in prison is limited; however, general research on at risk populations has demonstrated a wide range of motivations. Self-harm may be used as a means to regulate affect (Chapman, Gratz & Brown, 2006), provide relief from intensely negative emotions (Klonsky, 2007), self-punishment (Klonsky, 2009), communicate distress (Walker & Towl, 2018) and as a way to dissociate from internal and external environments (Motz, 2001). Past life experiences such as abuse, victimisation and trauma may contribute to self-harm being used as a maladaptive coping mechanism to process significant psychosocial stressors (Jeglic, Vanderhoff & Donovick, 2005; Dixon-Gordon, Harrison & Roesch, 2012; Walker & Towl, 2018). The impact of these traumatic events is amplified when individuals become deprived of liberty (Dear, et al., 2001).

Methods of self-harm are heterogeneous. In their analysis of prisons in England & Wales between 2004—2009, Hawton et al. (2014) found that the most common methods of self-harm for both sexes were cutting and scratching; for imprisoned women the next most
frequent method used is self-strangulation. Other methods of self-harm include impact injury, wound aggravation, ligature, suffocation and biting. The use of ligature among in-prison suicides has been an area of national concern for the UK Prison Service (Marzano, et al., 2016) because it is associated with a high-rate of lethality.

There is limited research contextualising the disproportionate rate of self-harm among incarcerated women. Kenning, et al. (2010) reported that imprisoned women described incidents of self-harm as impulsive and unstoppable acts related to intense feelings of anger, hurt and frustration over which they had little or no control. Marzano et al. (2010) explore the association between the role of psychiatric co-morbidity, particularly depressive disorder, and past episodes of near-lethal self-harm. Such research is significant as it considers near-lethal self-harm as a distinct entity, delineating these acts from what historically would have been categorised within ‘attempted suicide’ or ‘parasuicide’ (McHugh & Towl, 1997). The Ministry of Justice formally records self-harm as “any act where a prisoner deliberately harms themselves irrespective of the method, intent or severity of any injury.” (Ministry of Justice, 2018). Further research is necessary to contextualise the role of suicidal thoughts as precursor events to self-harm in this area, in similar detail to community facing studies (Kidger, et al., 2012). Understanding motivations preceding acts of self-harm is important if we are to deliver effective interventions.

In this paper, we present results from a pilot randomised control trial (RCT) of a self-harm intervention undertaken in three women’s prisons across England (Walker, et al., 2017) (Women Offenders Repeated Self-Harm Intervention Pilot II, WORSHIP II). Our objectives were to present accounts from women in prison about the patterns, methods, functions, triggers and intended lethality of the self-harm in which they engage.

**Methods**

This cross-sectional multisite study was conducted between 2012 - 2015 within 3 closed female prisons in England. The described study protocol was nested within an RCT piloting the use of Psychodynamic Interpersonal Therapy (PIT) as a potential therapeutic
intervention for reducing repetitive self-harm. Incarcerated women (n 113) included in the study were randomised into two groups, over 20 months, and offered 4-8 PIT sessions or 4 sessions of active control (AC), involving emotionally neutral activities in which talk about emotive topics and self-harm were specifically avoided.

Participants

Inclusion criteria comprised of women in custody between 18 and 65 years; currently on the Assessment, Care in Custody and Teamwork (ACCT) system, a process of identifying, documenting and monitoring people in prison who are considered to be at risk of self-harm or suicide, or had been on one recently; had engaged in an act of self-harm in the last month; were in the prison establishment for a minimum of 6 weeks to complete the intervention sessions; and not receiving alternative therapeutic intervention in prison. Women who were under enhanced observation because of recent suicidal ideation and/or self-harming behaviour were selected as prime candidates for the study. Prison staff identified women across the three sites using these criteria and when participants expressed an interest in the study their details were passed on to research team.

Measures

The interview consisted of several structured and open-ended questions addressing patterns of self-harm across the settings of prison and community. Early drafts of the structured interview were based around the Deliberate Self-Harm Inventory (DSHI) by Gratz (2001). We conducted a literature review and brought this to a series of panel discussions, with the wider research team involved in WORSHIP II, to design an interview process that met our own research objectives and was appropriate to the forensic environment. This included adding questions designed to delineate self-harming behaviours across community and prison environments, specific questions on overdose and ligature usage; and risk factors. Elements of the interview, such as subjective awareness of self-harm functions, were recorded in the participants own words. All interviews were conducted face-to-face, in
a private setting within the prison and lasted no more than one hour. The women could record their answers on paper as the interviewer went through the questions with them or the interviewer could record their responses.

**Post-interview support**

Participants were offered support both before and after the interview from a member of the Safer Custody Team (prison staff who have undergone specialist training in managing self-harm). Participants were assured confidentiality except in circumstances where there was a significant risk to their life. Where serious suicide risk was identified, it was explained to the participant that these risks would be disclosed to prison healthcare staff who formulated an immediate care plan.

**Ethical approval**

The study had ethical approval from the local ethical committee (Ethics number 12/EE/0179) and the National Offender Management Service (Reference 76-12).

**Data analysis**

Interview data were transcribed and transferred onto a secure database. Demographics, historical factors and certain aspects of self-harming behaviours were analysed through descriptive frequencies and cross-tabulation using SPSS Statistics Version 23.0. Qualitative data (such as accounts of participants describing the functions of self-harm, triggers, and emotions managed by self-harming) were assessed using NVIVO Version 11. We utilised data exploration and theory construction (Braun & Clarke, 2006) as described in a previous study (Walker, et al., 2016).

**Quality**

Credibility was gained by the first author’s (TW) prolonged engagement with the data (Kitto, et al., 2008). Consistency was maintained by keeping an audit trail, which involved
asking a colleague, who was not involved in the original data collection, to check over the author’s decision and analysis processes (JG). Transferability (neutrality) was evaluated by providing raw data to a colleague so they were able to interpret how themes had emerged.

Results

Participant characteristics

Of the 113 women in prison who took part in the WORSHIP II RCT, 108 (95.6%) had completed >50% of the structured interview in association with a trial investigator and were included in the thematic analysis. The average age was 29.8 (±7.9, n 113) years and 92.6% (n 100) self-identified as white. 61.1% (n 66) of participants were single and 58.3% (n 63) received visits at the time of the study. 63.6% (n 69) had children and provided details on the care of children (n 173) with 50.3% (n 87) children described as living with family members, or extended family member network, 31.5% (n 34) within care or living with foster parents, and 14.5% (n 25) having being adopted. On sentencing, 34.2% (n 37) were on remand at the time of the interview and 65.8% (n 71) had been sentenced.

Historical factors

Experiences of domestic violence were the most frequently reported historical factor (81.5%, n 88), followed by past experience of sexual abuse as a child (66.7%, n 72) and past experience of substance dependence (61.1%, n 66). 83.3% (n 90) declared past contact with psychiatric services. 36.1% (n 39) of participants reported past alcohol and substance dual dependency.

Self-harming behaviours and environment

The majority of participants (99.1%, n 107) reported self-harming both while in and out of prison. The first episode of out-of-prison self-harm started at a mean age of 14.3 years (±6.0, n 93), whereas the age at which the first episode occurred while in prison was 26.1 years (±8.3, n 103). Participants were asked to list the types of self-harm they had
undertaken previously across both environments. References to cutting and sharp trauma were the most frequently recorded category across both environments. On recent acts of self-harm occurring over the past month, 74.5% (n 81) women reported cutting and 22.2% (n 24) ligatured. The upper limb (55.7%, n 83) was the most frequently injured site, followed by the head and neck (20.1%, n 30), lower limb (18.8%, n 28) and the abdominopelvic region (5.4%, n 8). The majority of women undertook self-harm while alone (95.4%, n 103). Medical attention was sought in 59% (n 64) of cases, however, the medical response was most commonly reported to be limited to superficial wound cleansing rather than the need for hospitalisation from injuries.

**Ligature and overdose**

The interview structure was modified by the research team and the oversight committee, early into the study, specifically to collect data on the use of ligature and overdose. Data were available from 79 participants (73.1% of the total trial sample). 42 of these participants (53.2%) disclosed that they had used ligature as a means of self-harm whilst in prison. 10 of the 79 participants (12.7%) stated that they had previously overdosed whilst in prison.

**Emotions and functions of self-harm**

Participants were asked “What emotions do you manage by self-harming?” and provided 283 responses which were coded into 21 categories. Common emotions identified by participants were anger (69.4%, n 75), sadness (52.8%, n 57) and frustration (41.7%, n 45). On functions (“What does self-harm do for you?”) self-harm was often described as a means of providing release or relief from emotions such as anger, frustration and stress.
Exploring triggers to self-harm

108 participants listed triggers behind their recent episode of self-harm which were coded to 194 response areas. Conflict with others was the most commonly reported trigger to self-harm (e.g. arguments, being angered or being falsely accused) (10.8%, n 21).

“To blank out memories and get rid of frustration and anger I get from officers treating me like I’m a piece of shit. I want to remain polite and not get any negative IEPS [Incentives and Earned Privileges Scheme] in prison but it’s hard when you’re not respectful, so I got back to my room and self-harm, so I don’t explode in front of them”. (02105)

“Other women being nasty and trying to break me - buildup of emotions”. (02093)

This was followed by intrusive voices, thoughts and feelings provoking self-harm which was, at times, described as a result of command hallucinations (10.3%, n 20).

“Recently, self-harm has turned into suicide attempts because I’m struggling with hearing negative voices”. (03079)

“Release of pressure caused by voices”. (01083)

Participants stated that issues around children, in relation to memories, custody and distance, as triggers to self-harm (9.3%, n 18). Within our sample, 63.9% (n 69) of women had children.

“Kids - maybe going to lose them, they won’t talk to me”. (01020)

“Worrying about children. No birthday card off children…realising I’ve lost the kids”. (01041)
Expected final outcome

In relation to their recent episode of self-harm, participants were asked “At the time of your self-harm, what final outcome did you most intend and expect?” with the response being recorded in their own words. Cumulatively, non-suicidal references made up 79.7% (n 110) of all thematically coded responses. However, references to suicide (“To kill myself”, “To take my own life”, “Wanted to die”) were the most commonly coded single response (20.3%, n 28) among the dataset. Self-harming as a means of feeling better, providing emotional release and to facilitate a sense of mental escapism made up 34% (n 47) of expected outcomes. Several quotations detailing more violent methods of self-harm, such as the use of ligature and strangulation, were expressed in association with suicidal intent:

“When I ligature, I expect to die. When I cut myself it feels good, it releases my tension but then I feel bad later because I’ve got scars”. (03084)

“Fire - I wanted to kill myself. Others was just a release of stress and panicking and being alone”. (01031)

“Hanging - wanted to die and expected to die. Cutting - wanted to let frustrations out and expected a release”. (03038)

Discussion

This is the largest study to date examining the patterns, methods, functions, triggers and intended lethality of self-harm for women engaging in self harm in English prisons. Notably, the majority of participants reported a significant history of trauma with over two thirds having experienced violent relationships, been sexually abused as children and as adults. Most women had engaged in self-harm both in and out of prison. First episodes of self-harm often occurred during adolescence; this parallels studies of self-harm in the community. When discussing recent episodes of self-harm in prison over the past month,
cutting to the upper limb and ligaturing/self-strangulation are the commonest methods and these acts often occurred when women were alone in their cell.

When women were asked about what triggered their acts of self-harm, participants reported that conflict with others (e.g. arguments or being falsely accused) was the most common precipitant followed by difficulties coping with intrusive voices and concerns related to being separated from their children i.e. thinking about their children, worrying they were ‘losing them' (including custody of their children) and distance from family. Such themes also emerge in studies across the male prison population (Snow, 2002; Smith, 2015). Reports from women that their self-harming functioned as a means of providing release, or relief, from negative emotions were frequent. These results contribute to a growing evidence base that self-harm acts as a means of regulating difficult emotions (affect-regulation) among incarcerated women (Jeglic, et al., 2005; Dixon-Gordon, 2012).

Participants were asked what they most intended and expected the final outcomes to be at the time they engaged in their most recent episode of self-harm. Expected outcomes were heterogeneous. Responses referenced a strong sense of hopelessness, often stemming from past traumatic events; this has been demonstrated in previous studies of incarcerated women who attempted near-lethal self-harm (Marzano et al (2011). This is likely to be influenced by the multiple sources of trauma that the large majority of women who took part had experienced in their lives. However, it may also be true that most women in forensic mental health services or prison services, even those who do not self-harm, have similar trauma histories.

**Limitations**

Whilst this paper provides important insights into the perspectives of women in prison who self-harm from the sample to date, the findings have a number of limitations. This sample is nested within our randomised controlled trial and, as such, is a selected sample of women self-harming consecutively over a particular time period who consented to take part. This may mean some of the outcomes are more or less likely to be endorsed by participants
because it may not be wholly representative of all women in UK prisons who self-harm. Similarly, not all of the participants completed all aspects of the structured interviews. It is possible that the participants who excluded certain sections may have found them particularly difficult or distressing. Another explanation may be that although the research team were independent of the prison service and interviews were carried out in private, it is possible that some participants with a history of self-harm may have (incorrectly) believed that a disclosure of self-harm would have an adverse effect on their current imprisonment and/or delay their release. For those women who declined to participate, we are unable to state the exact reasons why they chose not to take part in full. However, we do know that the majority of non-completers were within the first ten or so female respondents into the trial.

The language of our structured interview was modified in order that it became relevant to the behaviours, and culturally sensitive, for the women in prison. Recent research by our group that examined women’s feelings about their self-harm scars, and how they affected their life and relationships in prison, demonstrated that some women became distressed discussing their past self-harm history (Gutridge, et al., 2019). These factors may have contributed to declining participation and may have underestimated some findings.

Another limitation of the study is that the interviews were completed in association with a member of the research team; this may have had an 'interviewer effect'. These researchers were female and young, but it is impossible to say whether this may have biased the results of the study, and if so, in what direction.

Sample data were self-reported and open to social desirability or approval bias. As the questions were concerned with a highly sensitive topic, participants may have provided an overestimation or underestimation of how often they self-harmed in and out of prison. As the study included only women, our findings may not be generalisable to studies of incarcerated men who self-harm. Future research should address these limitations but also explore qualitatively the intent in distinct subgroups of women who self-harm in prison; perhaps particularly first-time offenders or young women or mothers. It is also key that
suicidal intent is closely studied among this cohort (Gutridge, et al., 2019). Finally, there needs to be an examination that goes beyond recognised risk factors; further research needs to investigate whether different self-harming behaviours predict different clinical outcomes; this may help inform risk assessment, therapeutic interventions and prevention efforts.

**Conclusion**

In this paper, we describe a mixed methods analysis to contextualise why women in prison self-harm. We found that self-harming behaviours were established early in adolescence, often prior to entering prison and did not arise from imprisonment alone. On entering prison, the majority of participants in the study experienced high levels of psychological and social trauma; this is associated with previous trauma histories. Methods of self-harm differed across settings; such differences may be associated with resource availability and women’s intentions and their understanding about anticipated lethality of their harming behaviour. Although, the majority of women did not carry out self-harm in order to die by suicide, the line between escalations of injury and the intention to commit suicide remains uncertain and should be explored further. Future work must address ways of tackling the functions or triggers which drive self-harming behaviours, including separation from children, feelings of anxiety and separation of community.
References


