Adapting and Assessing the Feasibility of a Brief Psychological Intervention for Women Prisoners Who Self-Harm: A Pilot Study.

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ABSTRACT

Background: The current literature concerning self-harm and suicide has shown firstly that self-harm is a major public health problem, secondly that people who self-harm are at increased risk of suicide and thirdly, that women prisoners have a higher rate of self-harm than women in the general population and than male prisoners. Women prisoners are therefore particularly high risk of self-harm and suicide and yet to date, no specific intervention has been developed for this group.

Aims: This study intends to build on an intervention found to be effective in the community and to describe a methodology of conducting a therapeutic intervention in a prison environment.

Method: The research utilized both qualitative and quantitative methods conducted over four phases. In Phase 1, semi-structured interviews were completed with women prisoners who self-harm and with prison staff. Data was analysed thematically. In Phase 2, the results from the analysis were then used to inform the modification of a Psychodynamic Interpersonal skills Therapy (PIT) model originally used in the community. During the third phase of the study, prison staff were recruited and trained to deliver the therapy. Finally, the fourth phase consisted of a feasibility and acceptability study with 64 women prisoners who had recently self-harmed. Thirty-two were randomized to the treatment group which consisted of four sessions of individual PIT therapy and 32 to the control condition which consisted of four sessions with a member of staff not trained in the therapy. Rates of self-harm were measured pre- and post-treatment. Standardized measures for depression, suicide intention, hopelessness and interpersonal skills were also administered. These data were further supported by interviews conducted with participants who completed the intervention, therapists and therapy supervisors. The methods used in the study were constantly evaluated and amended when required to describe a methodology suitable for this environment.

Results: There was evidence of a lack of understanding of self-harm by prison officers. The trial phase of the study did not show evidence of efficacy for the intervention. There was an overall reduction in rates of self-harm pre- and post- treatment across the sample. Comparison of scores on outcome measures, pre- and post-intervention, showed a reduction on all tests in both treatment groups but this was not significant. It was not feasible to deliver the therapy as originally envisaged and substantial changes to the methods were needed. The results showed that prison staff had the skill and capacity to deliver PIT therapy but that the prison was not able to support such a role. As a result external therapists had to be brought in to the study.

Conclusions: It is acknowledged that the study was not feasible as originally designed, but due to the small sample size we cannot say it was not effective and therefore, not worthy of further study.

DECLARATION

I confirm that no portion of the work referred to has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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DEDICATION

I would like to thank my family and friends for their support over the last four years. In particular, my parents Lynne and Henry and my partner Tom for their love and understanding.

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THE AUTHOR

In 1998, the author graduated with a BA in Psychology and Sculpture from Liverpool Hope University. This was followed by a Postgraduate Diploma in Applied Psychology in 1999, at the same university. After a break I returned to university to complete an MSc in Clinical Criminology at the Scarman Centre, The University of Leicester. My first research post was in 2003, directly after the MSc and was for the University of Manchester. Over the last 7 years I have been involved in a number of studies focused on Forensic Mental Health. The research I have worked on has focused on minority groups within the Criminal Justice system which led naturally to working with women prisoners. The studies have included: a national study into the effectiveness of mental health provision for young offenders; a CBT trial for the treatment of adolescents in secure care; and a long-term follow-up (6 years) of young offenders screened for mental health problems whilst in secure care.

CHAPTER 1 - BACKGROUND

The first part of this chapter will explore issues surrounding the definition of self-harm. The epidemiology of self-harm in the general population will be discussed with reference to its link to suicide and Government strategies to reduce national self-harm and suicide rates. The functions of self-harm and theoretical models related to these functions will be explored in some depth. Previous self-harm intervention studies will be reviewed in detail highlighting which therapies have had success and describing the limitations to the existing research. The research will then focus on these factors as they apply specifically to women prisoners. Finally the chapter will look at the prison environment, staff attitudes and the difficulties related to delivering interventions in these settings. In summary, the conclusions from the existing literature will be discussed in relation to how they inform the intervention used in this research.

Search strategies

In this section I explain the process of data gathering. A broad search of the literature was conducted using electronic and hand searches to explore what literature there was on self-harm and areas of previous research. The searches were structured but not systematic. Initially, a literature review was carried out using the OVID electronic database. Catalogues searched, included: All EMB reviews (Cochrane DSR, ACP journal club, DARE, CCTR, CMR, HTA & NHSEED); EMBASE 1980-present; HMIC 1979-present; OVID MEDLINE(R) 1948-present; PsychINFO 1806-present; University of Manchester full text journals. The literature review search began with epidemiological factors of self-harm. Search terms included: self-harm/injury/mutilation/suicide- rate, methods, causes, reasons, functions, risk factors, psychological autopsy, mental health. To manage the large amount of information and to develop a more structured approach to the literature review, I organised the data under subject headings. Further sub-headings were identified as the volume of information increased. Once a body of literature was found, it was hand screened for relevance and citations of other works were explored to identify further literature that may have been missed. As the research questions were developed, the literature review became more focussed on self-harm in prisons. Here, the search focussed on rates, risk factors and

methods of self-harm in prisoners as well as attitudes towards self-harm/people who self-harm as compared to the general population. Search terms included: self-harm/injury/mutilation/suicide combined with prisons/prisoners/women prisoners/forensic/penal/health care/prison health care, and rate, methods, causes, functions, risk factors, psychological autopsy, mental health. Again, once a body of literature was found, it was hand screened for relevance and citations of other works were explored to identify further literature that may have been missed. A number of key books were also identified which were referenced in the literature.

Two key areas for the literature review were the theoretical models and functions of self-harm (section 1.3) and self-harm intervention studies (section 1.4). Recent systematic reviews had been conducted in both of these subjects. A review paper had been produced on the available research on the functions of self-harm by Klonsky et al, in 2007, and a review of self-harm intervention studies had been conducted by Hepp et al (2004). It was therefore felt that it would not be practical, or within the scope of this study to produce further systematic reviews. Instead the studies detailed in the reviews were obtained and a further search was performed using the above databases, to identify any other studies which had been published after the date of these reviews. A systematic review of the literature on therapeutic self-harm intervention trials in prisons was not conducted as the initial search of the literature had not identified specific trials. The lack of literature in this specific area was also supported by the absence of any studies identified in the previous systematic reviews conducted by Hepp et al (2004) and Hawton et al (1998; 1999; 2001).

Google searches were also conducted to identify government and public information publications and websites such as: Department of Health, Criminal Justice System, HM Prison Service and The Howards League for Penal Reform. The publications and press-release archives for these sites were then searched. Searches included the terms: self-harm/injury/mutilation/suicide and policy, guidance, PSOs (Prison Service Orders), inquiry, review, prevention, strategies, prisons, women prisoners. This literature was again sorted for relevance by hand.

Specific searches were carried out for key topics and are described further in the sections: psychological functions of self-harm (1.3.2.1), self-harm intervention studies (1.4) and factors affecting the management of self-harm in prisons (1.6).

1.1 Defining self-harm

Defining self-harm is problematic, partly due to the wide range of terms that have been used in clinical practice and in the literature. There is no one universally accepted term or definition. The relationship between suicide and self-harm was unclear in early research and practice. As a result, most early literature used terms which refer to self-harm as 'failed' suicide attempts such as: para-suicide, pseudo-suicide, suicidal gestures, attempted suicide, failed suicide and incomplete-suicide. "It is only since the 1970's that researchers and practitioners have begun to distinguish between 'failed' acts of suicide and the infliction of injuries for reasons other than cessation of life" (Snow, 2006 pp 72). It is now clear that individuals may have different motivations for self-harm and that the behaviour may serve a variety of different functions. Self-harm can therefore be considered in terms of a) motivation for the behaviour (whether there was suicidal intent or not) and b) method of self-harm (for example, self-injury or self-poisoning).

Other terms used in the literature, which do not focus on self-harm as suicidal behaviour, include: self-harm, deliberate self-harm, self-mutilation and scarification. Each of these terms provides a slightly different view and therefore definition of self-harm. There are a number of problems associated with some of the terms used. Scarification and self-mutilation only really include behaviours which cause damage to the external body, excluding behaviours such as self-poisoning or swallowing objects which may cause internal damage. Self-mutilation, a term widely used in the USA, can be seen to amplify and sensationalise the behaviour and is therefore unpopular with those who practice mild or moderate forms of self-harm (Sutton, 2005). Increasingly though, 'self-harm' is being used in the literature to refer to non-suicidal harming behaviours. Self-harm is often used as an overarching term incorporating both self-injury and self-poisoning. The common prefix 'deliberate' has been omitted from recent UK literature. Some authors, following service user feedback, have

stated that "deliberate" as a prefix to self-harm raises a number of issues. Firstly that it is a pejorative and redundant term and secondly that it may enforce the view that it is a conscious decision, and therefore a behaviour from which a person could refrain (Allen, 2007). However, it is still frequently used in international literature.

One of the main difficulties with defining self-harm is the fact that the terms are attempting to describe a wide spectrum of self-harming behaviours. Self-injury can range from very mild acts such as scab picking or hair pulling which have little impact on the body through moderate acts such as scratching or cutting to mark the skin to more severe acts of self-harm such as deep cutting or burning which may leave permanent scaring, and also very severe acts such as amputation or eye enucleation which carry a high risk of fatality. There is evidence that people who self-harm often use a range of methods, rarely always using just one method. In a recent study, Lloyd-Richardson and colleagues (2007) reported that 52% of a sample of 633 adolescent school children, engaged in between 2 and 5 different methods of self-harm and 6% reported using six or more methods. Another study by Horrocks et al (2003) reported that of 3239 people who attended two hospitals in Leeds for self-harm, 617 attended more than once in an 18 month period. When method of self-harm was reviewed it was found that around 30% (n=186) switched methods between self-injury and self-poisoning on different occasions. A further study by Lilley et al (2008) reported that 33% of a sample of 1234 individuals who repeated self-harm within the study period, changed method of harm between presentations to the hospital. These studies support the view that people who self-harm often use a variety of methods and related to this, the function of self-harm may also differ across incidents and over time.

Nock and Prinstein (2004), defined self-harming behaviours in 3 categories: *suicide attempt*, where a person displays some intent to die; *self-harm*, an absence of intent to die; and *suicide gesture*, where a person leads others to believe they have or will make a suicide attempt when they have not/ have no intention to (for example, claiming to have swallowed pills/razors et cetera, when they have not). The term 'suicidal gestures' became unfashionable due to its use in early research, where self-harm was considered 'failed' suicide attempts, and became synonymous with manipulation, building negative attitudes towards those considered to be

'untruthful' in their actions (Nock 2008). However, by defining the term clearly as applying to a small minority of cases the term now provides a useful definition of a certain type of behaviour.

Defining self-harming behaviour is therefore a complex issue which faces a number of barriers. Many of the problems lie with the range of behaviours which are being described and also the fluidity of both the methods used and the functions of the behaviours. Although many different terms and definitions have been generated, many of which have limitations, there is still no universally accepted definition. Past research varied immensely in the use and definitions of self-harming behaviour. Case definition between those with or without suicidal intent is therefore problematic and comparison of results across the field is extremely difficult.

Throughout this thesis the term "self-harm" will be used and the definition "an act of intentional self-poisoning or injury irrespective of the apparent purpose of the act" (NHS 1998 pp. 4) will be applied. This definition was chosen for its inclusiveness as the term can be used to describe all types of self-harm irrespective of the motive or methods used in the act.

1.2 Epidemiology of self-harm in the UK

In this section rates, methods, risk factors and the outcomes of self-harm in the general population will be explored. I will then discuss the importance of self-harm as an indicator of suicide risk and the importance of self-harm in the prevention of suicide.

1.2.1 Rates of self-harm

It has been estimated that in England self-harm is the reason behind over 200,000 hospital presentations a year (Hawton et al, 2007). Self-harm is more common among females than males, in most studies around two thirds of the patients who have self-harmed are female (Hawton et al, 1999). Rates of self-harm in England and Wales, are thought to be amongst the highest in Europe at 400 per 100,000 population per year and they have been rising over the last decade (Horrocks & House, 2002).

1.2.2 Methods of self-harm

As described in the previous section, self-harm can be divided into two main categories of behaviour, self-injury and self-poisoning. Horrocks et al (2003) conducted research into the different characteristics of patients who self-injure and those who self-poison. Information was gathered from A&E department records from two hospitals in Leeds from March 2000 to August 2001. During the 18 months reviewed, 5066 attendances for self-harm (by 3239 people) were recorded. The authors reported that of these attendances 21.2% (n=1074) were for self-injury and 82.5% (n= 4181) were for self-poisoning. In 189 cases, both self-injury and self-poisoning had occurred. The research looked at differences in age and gender for the different methods of self-harm. The authors reported that proportions of self-injury and self-poisoning were similar in most age groups. However, self-injury was over-represented in the younger age brackets (25-29 and 30-34 years) and self-poisoning was more common in the 40-45 years age bracket. A significant difference in gender was also reported, females accounted for 54.7% self-poisoning presentations and 45.6% of self-injury attendances. In another study, self-report questionnaires were administered to a community sample of 6,020 pupils aged 15-16 years. From the sample, 220 adolescents admitted to self-cutting and 86 admitted to self-poisoning in the previous year. Self-cutters included 171 females and 49 males (a ratio of 3.5:1) and self-poisoners included 74 females and 12 males (a ratio of 6:1) (Rodham et al, 2004)

Different methods of self-harm and the rates at which they occur, vary with the research environment. Hospital presentation studies show that self-poisoning is responsible for considerably more self-harm presentations than is self-injury (Horrocks et al, 2003; Kapur et al, 2006). However, it is thought that the rate of self-injury in the general population is higher than that recorded in hospital A&E departments (Horrocks et al, 2003), superficial self-injury such as scratching, scab picking, light cuts are unlikely to warrant medical attention so will not register in hospital A&E studies. Access to methods of self-harm may be restricted in certain populations, as in prisons where access to drugs is limited and access to other means is more readily available. Self-harm in forensic populations is predominately self-injury (Howard League, 2006).

1.2.3 Risk factors for self-harm

There have been a number of studies conducted that examine the relationship between risk factors that are thought to be associated with later self-harming behaviour. Some of the main risk factors which have been researched are: childhood experiences, psychiatric disorders, negative life-events and psychological factors. Demographic characteristics and socio-economic variables have also been identified as possible risk factors.

1.2.3.1 Childhood experiences

Childhood experiences are one of the main areas of risk factors that have been explored. Factors include childhood sexual abuse, physical abuse and neglect. In a study by Boudewyn and Liem (1995), a sample of 438 college students were asked about history of self-harm and childhood experiences. When childhood issues such as separation, loss, physical or emotional abuse and sexual abuse were entered into a regression equation, only sexual abuse emerged as a significant predictor of self-harm. These results are further supported by the findings of van der Kolk et al (1991) and Zlotnick et al (1996). A study by Gratz and colleagues (2002) examined gender differences in childhood experiences as a risk factor for self-harm. The sample consisted of 133 college students (89 female, 44 male) who were asked about self-harming behaviours and childhood experiences. The authors reported a number of significant relationships. Childhood sexual abuse was the strongest predictor of subsequent self-harm, but this was only a significant predictor in female students. Childhood physical abuse and subsequent self-harm has also been explored to some degree. However, the results are mixed. In the study reported above, Gratz et al (2002) also found that physical abuse was a significant predictor of self-harm in female students but not in male students, possibly due to the small sample size. These results are supported by Green (1978) who reported a significant relationship between childhood physical abuse and subsequent self-harm in a sample of children (Green, 1978). Contrary to these results Zweig-Frank et al (1994) reported no significant relationship between physical abuse and self-harm in a sample of female patients with Borderline Personality Disorder.

Limited research has also been conducted into the role of childhood neglect in later self-harming behaviour and the results are inconsistent. Some authors such as van der Kolk et al

(1991) have reported a significant relationship between neglect and subsequent self-harm, whilst other authors have reported partial support for differing types of neglect (Gratz, 2003). Neglect may be divided into emotional or physical neglect and may be further qualified as to whether it is maternal, paternal or both. Dubo et al (1997) reported that emotional neglect was the strongest predictor in a sample of inpatients. However, Zweig-Frank et al (1994) found no correlation between neglect and self-harm in a study which sampled patients with Borderline Personality Disorder. When gender differences were explored, Gratz et al (2002) only found significant relationships between self-harm and emotional neglect in females. One of the reasons for the differences in results may be the differing definitions of neglect. Some studies included both physical and emotional neglect (van der Kolk et al, 1991; Baral et al, 1998) and some distinguish between them (Dubo et al, 1997; Gratz et al, 2002).

The results of the studies are not easily comparable. The first limitation is that the studies do not always control for the impact of other variables. Sexual abuse has shown the most consistent results but there is no real evidence for a unique relationship and it is therefore possible that a third unknown variable creates the relationship. Secondly, relatively small sample sizes have been used, particularly for males. Futhermore, two of the largest studies used samples taken from university students, rather than any high risk group or general population samples (for example, Gratz et al, 2002; Boudewyn and Liem, 1995) and the reasons for targeting this population were not justified. A number of researchers have suggested it is likely that self-harm is a result of an interaction between different childhood risk factors (Linehan, 1993; van der Kolk, 1996). However, no research has been conducted so far to support this theory (Gratz, 2003).

1.2.3.2 Psychiatric disorders.

Many studies report on the relationship between mental illness and self-harm (Joiner et al, 2005; Haw and Hawton, 2008; Ferriera de Castro et al, 1998). In particular there is strong evidence of a link with borderline personality disorder (Klonsky, Oltmanns & Turheimer, 2003). In one study carried out in the UK by Haw et al (2001a), 150 patients who presented to a general hospital in Oxford for self-injury and self-poisoning, were screened for mental

illness. The authors reported a high prevalence of psychiatric (92%) and personality disorders (45.9%). It was reported that 138 participants (92%) were diagnosed with at least one disorder with comorbidity of two or more psychiatric disorders in 70 cases (46.7%). The most common disorders were depression, substance misuse and anxiety. This supports international literature which also report high rates of psychiatric disorder (Suominen et al, 1996; Beautrais et al, 1996; Ferriera de Castro et al, 1998). A more recent study carried out by Haw and Hawton (2008), reported levels of psychiatric and personality disorders that were considerably lower. The authors stated that from a sample of 4391 individuals presenting to a hospital for self-harm, 769 (29.4%) females and 463 (26.1%) males were diagnosed with a psychiatric disorder. There was also evidence of personality disorder in 227 (8.7%) females and 236 (13.3%) males. The study was looking primarily at life-problems in patients who self-harm and there is no explanation of the low rates of mental illness found in the sample as compared to rates in other studies. It may be that psychometric assessments were not carried out with all patients but this is not explained in the research.

1.2.3.3 Negative life events and psychological risk factors

Stressful or traumatic life-events are considered to be important risk factors for self-harm and suicide. In a study by Haw and Hawton (2008), information on 4391 people from the Oxford Monitoring System for Attempted Suicide (collected between 1993-2000) were analysed to assess levels of life-problems immediately preceding a suicide attempt. Over 80% of the sample reported multiple life problems, with difficulties in personal relationships being the most common. The authors also reported that the number of life problems differed by gender with males reporting more problems, and by age, those aged over 55 years reporting less life-problems. Interpersonal problems are commonly reported by patients who self-harm (Milnes et al, 2002; Hawton et al,1997, 2003; Murphy et al, 2007).

In a study by Milnes, Owens and Blenkiron (2002), 150 patients admitted to a hospital after an incident of self-harm (both self-injury and self-poisoning) were asked about the type and perceived solubility of their problems. The Beck Suicide Intent Scale (Beck et al, 1979) and Beck Hopelessness Scale (Beck et al, 1985) were also administered. The authors reported

that 80% (120/150) completed the measures. On average males reported five problems (interquartile range 3-7) and females reported four problems (interquartile range 3-6), problems with partner, family and money being the most frequent. When asked about solubility of problems, 66% (n=44) reported at least one insoluble problem (79/120) with males reporting significantly more insoluble problems than females (78% to 47% respectively). The authors also reported a significant relationship between the number of insoluble problems, hopelessness and suicidal intent. One limitation with the study was that only patients admitted to hospital for self-harm were included in the trial so the results may not be generaliseable to discharged patients or other specific populations.

Horrocks and House (2002), reported that psychological factors including impulsiveness and poor problem-solving ability, have a strong association with self-harm. Stressors were usually experienced just prior to acts of self-harm or suicide, these included interpersonal problems, financial worries, work or health-related problems, and losses such as death of a loved one (Horrocks & House, 2002). However, much of the research on psychological risk factors has been around suicidal behaviour as opposed to self-harming behaviour. Some of the characteristics that have been identified are: poor problem-solving skills, sensitivity to social stimuli and impulsivity (Van Heeringen, Portzky & Audernaert, 2004). Inter-personal problems were most commonly reported by self-harm patients (Farmer & Creed, 1989; Hawton et al, 2003; Murphy et al, 2007).

1.2.3.4 Demographic and socio-economic characteristics

As well as the above risk factors, a number of studies have also shown a link between demographic and socio-economic factors and risk of self-harm. General population case-control studies identify single status, unemployment, low income, retirement, disability and family history of mental disorder and or suicide, as risk factors for self-harm and suicide (Sinclair et al, 2005). Demographic data collected during studies monitoring self-harm presentations at A&E departments in the UK, reported a number of key demographic characteristics in their population samples. Several studies reported that of those people who presented to hospitals for self-harm, the majority were of white ethnic origin, unemployed, single, not living with family members and lived in economically deprived areas (Kapur et al, 2006; Hawton et al, 2004, Horrocks And House, 2002). The study by Kapur et al (2006)

reported that of a sample of 9213 individuals who presented to 4 hospitals in North West England, 57% were female, 51% were single, 40% were unemployed and 89% were white. Another study by Cook et al (2008) which looked specifically at Emergency Department presentations for self-poisoning at one Scottish hospital, reported that demographic data showed that patients were typically young, 66% aged under 40 years, female (male:female ratio 1.0:1.6), and living in areas of social deprivation. One limitation to hospital based studies is that they are limited in their generalisability. This is due to the fact that the samples are biased towards cases of self-harm which are likely to result in the need for medical attention.

One ecological study conducted by Johnston et al (2006) explored the relationship between socio-demographic and area characteristics in patients who presented to hospitals in Manchester following an incident of self-harm. The authors reported that repetition of self-harm was significantly associated with key socio-demographic variables including age, employment, marital status, living circumstances and white ethnicity. However, many of these factors are used as indicators of material or social deprivation and therefore the link between individual factors and deprivation are difficult to separate. For example, compared to men who are employed, unemployed men are more likely to be single, not live with their families, be of a lower social class and to have a criminal record (Horrocks & House, 2002). Although these studies present evidence of a link, the specific nature of the relationship remains unclear and further work is needed to try and separate out these risk factors.

1.2.4 Outcomes of self-harm

1.2.4.1 Repetition of self-harm
Several studies have shown that a proportion of people who present to A&E for self-harm, repeat and re-present to hospital (Horrocks et al, 2003; Lilley et al, 2008). Some authors have also suggested that there is an increased risk of further self-harm for people who present for self-injury as opposed to self-poisoning. In one study by Kapur et al (2006), a significant difference was found in the proportion of individuals repeating within 12 months of an index episode, 21.4% for self-injurors as opposed to 7.3% for other forms of self-harm. A study

examining repetition rates, conducted by Lilley et al (2008), reported that 17% (1234/7344) re-presented to hospital A&E departments for self-harm within an 18 month period. Those who presented for self-cutting or combined methods were most likely to repeat and also likely to do it sooner than those who had self-poisoned or used other methods of self-injury. As stated previously, (section 1.2.2) acts of self-injury are less likely to result in the need for medical attention and therefore the rates of repeat self-harm incidents in this group, are likely to be underestimated.

1.2.4.2 The relationship between self-harm and suicide
Self-harm is one of the strongest predictors of subsequent suicide. Detailed information on rates of self-harm has been collected in regional studies for example, in Oxford, Leeds and Manchester. Data collected from these centres, provide strong supporting evidence for the increased risk of suicide in patients who repeatedly self-harm.

In a long-term follow-up study of patients who had presented to the general hospital in Oxford, for self-harm, Zahl and Hawton (2004) calculated suicide rates and further acts of self-harm in the following years. Survival information was available for 11,583 patients and they were followed up for an average of 11.4 years (range 1 day-23 years). At the index episode 2704 patients reported at least one previous episode of self-harm (22.6% of males and 23.9% of females). At the time of follow-up, the authors reported that 300 (26%) of the participants had died by suicide, and that 2666 of the patients had committed further acts of self-harm (23.2% of males and 22.9% of females) in this time. They also found a significant difference between those who had reported previous episodes of self-harm prior to their index episode and those who had not, in subsequent acts of self-harm. Gender differences were also explored and it was found that young females who had repeated incidents of self-harm were at much higher risk of further repetition than other groups. The authors concluded that information about repetition may be more informative in relation to suicide risk in females than in males.

Cooper et al (2005) examined a cohort of 7968 individuals who had presented with self-harm at four Northwest hospitals, over a four year period. They reported that over half were

women (n=4500, 57%) and that the rate of suicide by females in this cohort was 241 per 100,000 population. This was 50 times higher than expected for the general population which was recorded by the World Health Organisation as a rate of 2.8 per 100,000 population. They also reported an increased risk in males which was 29 times higher than the rate of 9.8 per 100,000 in the general population (WHO, 2006). The authors reported that risk was greatest during the first six months of follow-up (562 per 100,000).

Psychological autopsy studies of people who have died by suicide, show that approximately 50% have a history of self-harm (Foster et al, 1997). Further studies show that this increases to two thirds in younger populations (Appleby et al, 1999). A retrospective study of suicide in people with mental disorders also reported that history of self-harm was a significant risk factor both for those with bipolar disorder (47%) and particularly in those with depression (78%) (Sinclair et al, 2005). These studies provide evidence for the link between self-harm and suicide.Ttherefore, targeting people who self-harm is seen as a key factor in reducing suicide in the UK.

1.2.4.3 Rates of suicide in the UK

The rate of suicides in the UK is falling (Tables 1a & 1b). The Office for National Statistics (2010) reported that male suicides dropped from a peak in 1991 of 20.5 per 100 000 population to 15.2 per 100 000 population in 2007 but rose slightly to 16.2 per 100 000 population in 2009. Rates of suicide in women have remained fairly consistent at around 5.0 per 100 000 population. However, certain vulnerable groups incur much greater risk, for example, Asian women (Yip et al, 2000; Raleigh & Balarajan, 1992; Cooper et al, 2005; Zahl & Hawton, 2004). There are also regional differences in rates of suicide with the highest in the UK occurring in Scotland. From 1991-2004, the rate of suicide among men was 50% higher in Scotland than other UK countries, while the rate for women was double that of elsewhere. During 2002/04 the suicide rate among Scottish men was 30 per 100,000 compared with 22.4 in Wales, 18.3 in Northern Ireland and 16.7 in England. For Scottish women, the rate was 10 per 100,000 compared with 6 per 100,000 in Wales, 5.6 in Northern Ireland and 5.4 in England (Brock et al, 2007).

Table 1a - Suicide rates (per 100,000 population) in England and Wales **1991-2000**.

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Male	20.5	20.4	19.2	18.8	19.2	18.1	17.7	20.0	19.5	18.4
Female	6.5	6.4	6.1	5.8	5.7	5.6	5.7	5.8	5.7	5.9

Table 1b - Suicide rates (per 100,000 population) in England and Wales **2001-2009**

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Male	17.9	17.1	17.1	17.0	16.3	15.7	15.2	16.0	16.2
Female	5.3	5.4	5.4	5.6	5.4	4.9	4.4	4.8	4.8

(ONS, 2010)

Figure 1 – Suicide rates in England and Wales by gender (ONS, 2010).
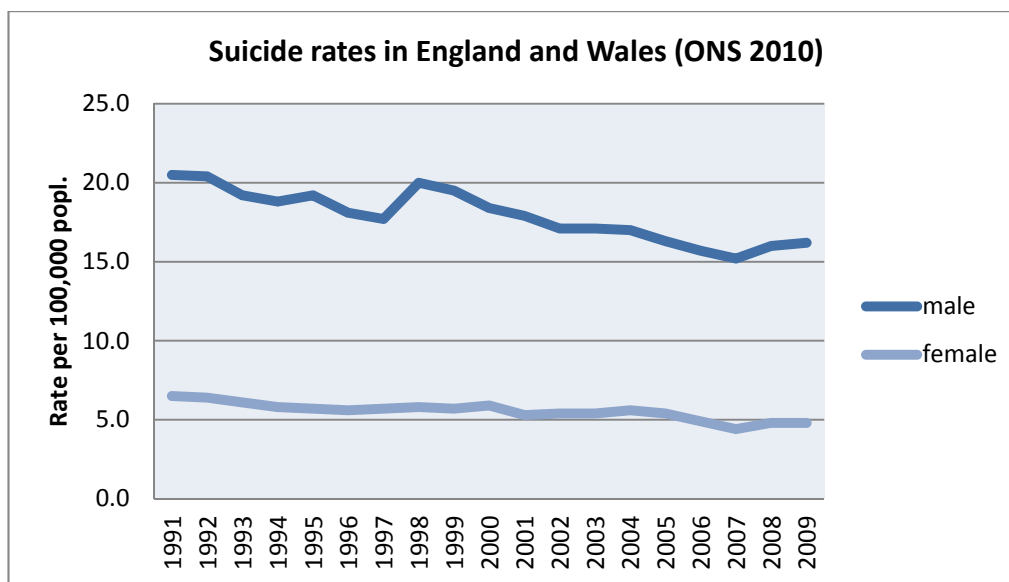
(Suicide rates per 100,000 population)

1.2.4.4 Government policies on suicide prevention

The National Suicide Prevention Strategy for England (DoH, 2002a) was published to highlight the problem and to direct services towards the reduction of suicide. The report stated that there were around 5000 deaths by suicide or undetermined injury every year in

England. The strategy identified 6 goals towards reducing the rate of suicides which are described in Table 2 below.

Table 2 - The 6 goals for action in the National Suicide Prevention Strategy

Goal No.	Description
Goal 1.	To reduce risk in key high risk groups
Goal 2.	To promote mental well-being in the wider population
Goal 3.	To reduce the availability and lethality of suicide methods
Goal 4.	To improve reporting of suicidal behaviour in the media
Goal 5.	To promote research on suicide and suicide prevention
Goal 6.	To improve monitoring of progress towards the *Saving Lives: Our Healthier Nation* target to reduce suicides.

The first goal and perhaps the most important to this project, is to reduce risk in key groups. These groups have been identified as: 1) people in contact with mental health services; 2) people in the year following acts of self-harm; 3) in young men; 4) in prisoners and 5) those in high risk occupational groups. The groups that are of importance to this research are prisoners and those who have made previous self-harm attempts. In the report, both were identified as high risk groups with around 85 suicides by prisoners every year and at least 1180 suicides by people known to have committed an act of self-harm within the previous year. The baseline rate of suicide and indeterminate injury was taken over a 3 year average, which in 1995/6/7 was 9.2 per 100 000 population. The Strategy aimed to reduce these figures by at least a fifth (20%) by 2010, a total of around 1000 fewer deaths. This figure would include around 17 fewer deaths by prisoners and 236 fewer deaths by those who have a history of self-harm. Strategies to reduce deaths were further outlined in the White Paper, 'Saving Lives: Our Healthier Nation' (DoH, 1999).

Annual reports produced by the Care Services Improved Partnership (CSIP) monitor progress on mortality reduction targets. The most recent report, produced October 2008, stated that the three year average mortality rates increased immediately after baseline (1995/6/7) from 9.2 to 9.7 per 100 000 population in 1998/9/2000. However, the rate for 2005/6/7 had fallen to 7.9 per 100 000 population, a 13.9% decrease from the baseline (DoH, 2008). The Government target for 2010 was to reduce rates of suicide by 20% but it is not yet known if this target has

been achieved. The figures for 2008/9/10 have not yet been published but the decrease in rate of suicide in 2005/6/7 was encouraging.

1.2.5 Section summary

Defining self-harm is problematic due to the wide range of behaviours being described. It has been suggested that self-harm is the reason for over 200,000 hospital presentations a year (Hawton et al, 2007). Hospital presentation studies show that self-poisoning is responsible for considerably more self-harm presentations than is self-injury (Horrocks et al, 2003; Kapur et al, 2006). However, it is thought that the rate of self-injury in the general population is higher than that recorded in hospital A&E departments (Horrocks et al, 2003). There is evidence of a clear link between self-harm and suicide, in that people who self-harm show a much greater risk of eventual suicide (Zahl & Hawton, 2004; Cooper et al, 2005).

The literature discusses a range of possible risk factors which may have an effect on later self-harming behaviour. Childhood experiences are the most researched factors, within this area childhood sexual abuse seems to be the most consistent risk factor in a wide variety of populations. However, there is no evidence of an exclusive relationship between any risk factor and self-harming behaviours. A number of researchers have suggested it is likely that self-harm is a result of an interaction between different childhood risk factors (Linehan, 1993; van der Kolk, 1996). Horrocks and House (2002) suggest that self-harm may be affected by the interaction of both long-term vulnerability factors such as childhood experiences as discussed above and short-term or precipitating factors including life problems, work or health problems and drug and alcohol misuse, which provoke specific incidents of self-harm. However, there is no existing research on how these different risk factors may interact (Gratz, 2003) and if the effects differ by factors such as gender, age, method of self-harm et cetera.

1.3 Theoretical models and functions of self-injury

This section will explore some of the existing literature on theoretical models of self-harm including the cycle of self-injury and the psychological functions of self-harm.

1.3.1 Theoretical approaches to self-harm

1.3.1.1 Self-injury
In 1987, Favazza defined three categories of self-injury: Major self-harm, Stereotypical self-harm and Superficial/Moderate self-harm (Favazza, 1987). Major self-harm refers to the most severe and also the least common form of self-injury. It refers to such acts as eye enucleation, limb amputation and castration which can endanger the life of the individual. This form of self-injury is usually associated with mental illness such as psychosis and acute intoxication. Stereotypical self-harm is often linked to conditions such as autism and Tourettes syndrome and involves monotonous and repetitive actions such as head banging. The most common form of self-injury is that of Superficial/Moderate self-harm which consists of acts such as cutting and burning of the skin with generally little risk to life. Ten years later, in 1996, Favazza broke down the Superficial/Moderate group into three further sub-categories: Compulsive, Episodic and Impulsive self-harm (Favazza, 1996).

Compulsive self-harm consists of repetitive or ritualistic acts which may occur many times daily. One common form of compulsive self-harm is trichotillomania or 'hair pulling', which may often be a subconscious act. Favazza states that the second sub-category, Episodic self-harm, is most common, whereby self-harm is used to achieve rapid relief from tension or to alleviate emotional deadness or disassociation. Self-hate and anger are often associated with this form of self-harm, and it may be used as a means of establishing control over oneself or to get the attention of others, particularly if the individual lacks communication skills. Emotional or stressful events may be seen to trigger such episodes of self-harm. The final sub-category, Impulsive self-harm, occurs when self-harm becomes an addiction and the individual identifies themselves by their behaviour, so they become and may even describe themselves as a "cutter" or a "burner". Unlike the other forms of self-harm described above which are usually symptoms of other disorders, Favazza regards repetitive self-harm as a disorder in its own right "Repetitive self-mutilation syndrome". He considers it to be a

disorder of impulse control whereby the impulse cannot be resisted and can be triggered by a wide range of things (Favazza, 1996). It is these last two sub-categories which are most common in prisoners who self-harm.

1.3.1.2 Self-poisoning

There appears to be much less research and theorising about the types and cycle of self-poisoning as a form of self-harm. One of the reasons for this may be the difficulty in understanding how self-poisoning is described and subsequently registered in medical records. Camidge et al (2003), describes three broad categories of self-poisoning: accidental self-poisoning; suicide; and self-harm. Accidental self-poisoning may occur as a result of recreational drug use or a lack of understanding about correct dosage for prescribed medications. Where intention is unclear, self-poisoning which does not result in death is described as self-harm and where it does result in death, suicide. Lack of knowledge about the relative dangers of different substances taken in overdose, may make determining intent more difficult than in self-injury. As described by Hawton and van Heeringen (2000) a small dose of a benzodiazepine hypnotic or antibiotic may represent a serious suicide attempt in some patients whereas a large overdose of paracetamol might be taken with low intent by others.

Much of the research describing self-injury discusses the importance of the act of cutting or marking the skin, of seeing blood, of scarring the body creating a visual expression of their pain (Favazza 1987). However, few authors attempt to explain how self-poisoning would fit into this model. Key works such as those by Favazza (1987) or Hawton and van Heeringen (2000) fail to describe theoretical models for self-poisoning or to consider that it may differ from self-injury. A lot more research is needed into the specific theoretical models as they relate to self-poisoning.

1.3.2 Psychological functions of self-harm.

Past research has attempted to explore the causes of self-harming behaviour. Factors that have been explored include biological, psychological, cognitive and behavioural influences. However, the focus here will be on psychological functions.

Some authors such as Motz (2009) feel that self-harm should be seen as an expression of hope or self-preservation. The act of self-harm is an attempt to stay alive. As with other authors, Motz sees self-harm as a form of communication or silent language, "Self-harm embodies unbearable feelings and memories of trauma; it expresses the hope of being understood and cared for" (Motz, 2009 pp.15). She describes self-harm as a 'test' for the body to see if it can withstand and survive the assault and to see if one can defeat the fear of pain and its consequences. Motz (2009) describes self-harm as a dichotomy in which the person is both the assaulter and the carer, which in turn helps the individual to develop an integrated sense of self. Motz also argues that self-harm is both conscious and subconscious, and acts as a form of internal communication between the two. However, many other authors describe self-harm as an involuntary action. Scanlon and Adlam (2009) describe self-harm as a set of impulses that might otherwise result in them attacking others. They state that self-harm can best be understood "within a conceptual framework of reciprocal violence in which the violent act is a publication of personal distress that can only be properly understood as a psychosocial phenomenon" (Scanlon and Adlam, 2009 pp.77).

The two theories presented here are radically different, yet both refer to self-harm as a form of communication. For Motz (2009) self-harm is an internalised expression intended to create a sense of order, sensation and release from a state of distress or anxiety; for Scanlon and Adlam (2009) it is the outward communication of anger or violence directed towards the self to prevent directing it at others. Both authors provide support for their theories in the form of vignettes taken from interviews with patients who self-harm and so both appear valid. It is likely that different models are valid for different patients as related to functions and causes of their self-harming behaviours. There is still much research needed to expand these concepts into fully formed models of self-harm.

There are a number of possible psychological reasons for self-harming behaviour, most of which are found across varied populations, therefore, no single function can be considered universal. Functions of self-harm are generally categorised under two headings a) Automatic functions and b) Social functions (see Table 3). Automatic functions of self-harm are thought to be primarily aimed at emotion-regulation by the individual. It is suggested that Automatic functions of self-harm includes: release of tension or anger, distraction from unwanted thoughts and painful emotions, relief from feelings of disconnectedness or a form of self-punishment. Social functions are actions primarily aimed at affecting others or the environment. Social functions are thought to include self-harm as a form of communication, which Nock (2008) suggests is perceived as a more 'honest' expression of emotion than verbal communication, or as an action aimed at eliciting a caring response from others.

Table 3 - Psychological mechanisms of self-harm (adapted from Favazza, 1996)

Mechanism	Description
Automatic Functions	
Emotion regulation	To re-establish control over racing thoughts and emotions particularly in unstable environments
Release of tension	Tension levels become too high, cuts provide an opening from which tension can rapidly escape as seen in blood flow
Cathartic release of anger	Feelings of rage, resentment or impotence directed to another person or institution, self-harm may be seen as an enactment of revenge, as better than passivity and resignation, or it may be considered a 'safer' option than turning the anger on others.
Self-punishment	Inflicting harm on the self may be seen as a remedy for 'crimes' committed or perceived flaws in themselves.
Distraction/ emotional-avoidance	A distraction from, or avoidance of, unwanted thought or painful emotions. Focus on the physical pain.
Stimulation	Linked to impulsivity and personality disorders, the need for high levels of stimulation and excitement. Tensions build in a restrictive environment and can be released through self-harm.
Emotional dysphoria	Feelings of disconnectedness or emotional numbness, relieved by feelings of pain
Social Functions	
Communication	Seen as a more 'honest' expression of how a person feels (Nock, 2008). Escalation of milder forms of communication such as crying/screaming.
Interpersonal influence	A ploy to gain attention or to coerce others into providing a caring response. To affect changes in the environment

1.3.2.1 Research on psychological functions of self-harm

There have been a number of studies carried out into the psychological functions of self-harm. In this section, I will review some of the existing literature.

A systematic review of research into the psychological functions of self-harm was conducted by Klonsky in 2007. The inclusion criteria included any study reporting data that directly addressed the functions of self-harm. Klonsky (2007) identified 18 studies which used three different methodological approaches: self-report reasons for self-harm, self-report phenomenology and laboratory studies.

As a systematic review had been recently published, I did not conduct a further review but used the studies identified by Klonsky (2007) with a further search to identify if any further studies had been published after the date of the review. The search strategy used to identify relevant studies consisted of an electronic search using OVID. Databases searched were: University of Manchester full text journals, Embase 1989-2008, EMB reviews, Ovid MEDLINE (R) 1950-2008, psychINFO 1806-2008, Cochrane DSR, ACP journal club. Search terms used included: self-harm/injury/mutilation combined with functions, reasons, mechanisms, characteristics, trials, interviews. The search was limited to research published after 2006 to identify any further studies published after the Klonsky review. Only one further study was identified, that of Lloyd-Richardson et al (2007).

For this section it was decided to only include studies which used self-reported reasons or phenomenology, which allows the participant to state the reasons for their self-harm behaviour. Laboratory studies assess the physiological effects of proxies for self-harm and are used to evaluate affect-regulation functions. As this section focuses on the comparison between automatic and social reasons, and the focus of the laboratory studies is solely on affect-regulation, it was felt that they did not meet my inclusion criteria. Therefore, four studies, originally identified in the Klonsky review (2007), were not included here. Table 4, below, contains the 15 remaining studies which are discussed in this section.

Table 4 - Overview of research on functions of self-harm

Author	Sample	Method*	Results
Favazza & Conterio 1989	Adult, female, N=240, (community)	Self-report, prescriptive list of items *AD, AR, SP*	Automatic functions only supported. "control mind when racing" 72%, "feel relaxed" 65%
Herpertz 1995	Adult, mixed gender, N=54 (inpatients)	Self-report, prescriptive list of items *AD, AR, II, SP*	Primarily automatic but also social functions. "tension relief" 76%, self-punishment 10%
Osuch et al 1999	Adult, mixed gender, N=99 (inpatients)	Self-report, prescriptive list of 35 items. *AR, SP, II, SS*	Primarily automatic but also social functions. Percentages not reported.
Brown et al 2002	Adult, female with BPD, N=75 (outpatients)	Self-report, prescriptive list of 29 items. *AD, AR, II, SP*	Primarily automatic but also social functions. "emotional relief" 96%, "self-punishment 63%
Nixon et al 2002	Adolescent, mixed gender, N=42 (in/outpatients)	Self-report, prescriptive list of 19 items. *AR, AS, II, SP, SS*	Primarily automatic but also social functions. affect regulation 97.6%, "to stop feeling numb" 64.7%
Penn et al 2003	Adolescent, mixed gender, N=289 (forensic)	Self-report, prescriptive list of 22 items (FASM). *AD, AR, SP*	Automatic functions only. "to stop bad feelings" 65%, "to feel something" 60%
Kumar et al 2004	Adolescent, mixed gender, N=50 (inpatients)	Self-report, prescriptive list of 36 items. *AR, SP, II, SS*	Primarily affect modulation but also social functions. (percentages not reported)
Nock & Prinstein 2004	Adolescents, mixed gender, N=89 (inpatients)	Self-report, prescriptive list of 22 items (FASM). *AD, AR, II, SP*	Primarily automatic but also social functions. "to stop bad feelings" 53%, to punish self" 32%
Lloyd-Richardson et al 2007	Adolescents, mixed gender, N=633 (community)	Self-report, prescriptive list of 22 items (FASM). *II, C, AR, AD, SP, SS*	Primarily social but also automatic functions. Social functions 19-31%, automatic functions 22-28%

Author	Sample	Method*	Results
Briere & Gil 1998	Adult, mixed gender, N=390 (in/outpatients)	Self-report reasons & phenomenology (qualitative). *AD, AR, IB, II, SP*	Primarily automatic but also social functions "distraction from painful feelings" 80%, "self-punishment" 83%
Laye-Gindhu & Schonert-Reichl 2005	Adolescents, mixed gender, N= (community)	Self-report reasons & phenomenology (qualitative). *AD, AR, AS, II, SP, SS*	Primarily automatic but also social functions "feels unhappy/depressed" 80%, "dislikes self" 70%
Jones et al 1979	Adolescents, mixed gender, N= 100 (outpatient)	Self-report phenomenology (qualitative). *AR, II*	Primarily automatic but also social functions "To reduce tension" 62% self-poisoners and 79% of self-cutters.
Wilkins & Coid 1991	Adult, female, N= (forensic)	Self-report phenomenology (qualitative-indirect qus). *AR, AD*	Automatic functions only. 26% self-injury preceded by feelings of depersonalisation
Coid et al 1993	Adult, female with BPD, N= 72 (forensic)	Self-report phenomenology (qualitative- indirect qus). *AR*	Automatic functions only. 93% self-injury preceded by feelings of tension
Kemperman et al 1997	Adult, female with BPD, N= 38 (inpatient)	Self-report phenomenology (qualitative-indirect qus). *AD, AR*	Automatic functions only. 90% felt less angry/anxious after self-harm

* Functions explored in the research: AD= Anti-dissociation, AR= Affect-regulation, AS= Anti-suicide, IB= Interpersonal boundaries, II= Interpersonal influence, SP= Self-punishment, SS= Sensation-seeking, C= Communication.

In total nine studies were reviewed that tested self-report reasons for self-harm using prescribed 'tick lists', and six studies used interviews to explore phenomenology (two of which also explored self-reported reasons for self-harm in the interviews). A range of community and in-patient populations were used and three studies were conducted with forensic populations.

In all studies the most common reason given for self-harm was affect-regulation, and this was across a range of samples. Herpetz (1995) reported 76% of a clinical sample identified affect-regulation as the primary reason for their self-harm, this was further supported by Brown et al (2002) who reported this finding in 96% of a clinical sample. Adolescent studies have also supported affect-regulation as the primary function with Penn et al (2003) reporting 65% and Nock & Prinstein (2004) reporting 53%. The three studies with forensic populations Penn et al (2003), Wilkins and Coid (1991) and Coid et al (1993) all reported only automatic functions.

Of the nine studies that explored interpersonal-influence, or social functions of self-harm, only one reported significant evidence for this function. Brown et al (2002) reported that 61% of a sample of female, borderline personality disordered patients, identified interpersonal-influence as a reason for their self-harming behaviour. This finding was less evident in other studies but still present in all studies which tested for it. Briere and Gill (1998) also reported a substantial minority identifying interpersonal-influence (40%). However, since the review was conducted, a recent study in a community sample of adolescents took place, which supports the presence of interpersonal-influence in the majority of the sample. The study, conducted by Lloyd-Richardson et al (2007) explored prevalence rates and self-report reasons for self-harm in a community sample of 633 adolescents. The presence of self-harm was reported by 46.5% of the sample, of these, 18.8% engaged in minor self-harm and 27.7% in moderate/severe self-harm. On average the participants reported 4.76 individual motives for each incident of self-harm, automatic functions were endorsed by 22-28% and social functions by 19-31%. This study was interesting because the results did not support previous research which states that the primary self-report function for self-harm is affect-regulation, the authors explain that adolescents may be less socially isolated, depressed or hopeless than

clinical populations but other studies using similar community based adolescent samples have also reported automatic functions as the most commonly endorsed function for self-harm. Another interesting issue raised in the study by Lloyd-Richardson et al (2007) was that on average participants endorsed 4.76 (S.D.= 5.56) individual motives for self-harm. This supports the view that multiple functions for self-harm may exist concurrently in individuals. It is not known whether functions may change with age and further research is needed to explore this.

There were six studies in the Klonsky review (2007) that looked at self-report phenomenology. In this method, qualitative interviews were used to explore the phenomenology of self-harm, purposefully not asking participants to provide reasons for their self-harming behaviour as this may be perceived by the individual that they are being asked to justify a socially unacceptable behaviour. All of these studies provided support for an affect-regulation function of self-harm.

1.3.3 Theoretical models

There have been two main theoretical models proposed to explain the role of motivation and reinforcement on repeated self-harm behaviours. The first, the Experiential Avoidance Model (EAM) was proposed by Chapman et al (2006). This model suggests that self-harm is "primarily maintained by negative reinforcement in the form of escape from, or avoidance of, unwanted emotional experiences" (pp 1) and it focuses entirely on automatic functions of self-harm. The paper fails to explore other functions of self-harm, with no reference to how social functions fit into this model. Evidence for this model was based on previous research studies which showed that emotion-regulation is the primary function of self-harm. However, all of the research cited, also reported a substantial minority who endorsed social functions of self-harm. The study discussed the clinical implications of the model and suggested possible interventions based on this premise. However, evidence for these interventions is lacking with the results of only one Dialectical Behaviour Therapy (DBT) trial (that of Linehan et al, 1991) offered as support for this model. Other interventions which have shown equal success

were not explored as they do not target experiential avoidance. The success of other interventions such as psychodynamic therapies, may therefore be considered evidence for functions of self-harm other than automatic.

The most comprehensive model to date is that of the 4-function model proposed by Nock and Prinstein (2004). The model suggests two functions of self-harm, automatic and social, which can be reinforced negatively or positively.

Table 5 - The four-function model (Nock & Prinstein, 2004)

	Negative	*Positive*
Automatic	Reduction in tension/ negative affective states	Feeling generation/ create desirable psychological state
Social	Escape from interpersonal tasks/ avoidance of tasks	To gain attention or care responses from others

To support the proposed model, Nock and Prinstein (2004) conducted research on 108 adolescent psychiatric inpatients, referred for self-harming thoughts or behaviours. Self-report measures were used to record frequency, characteristics and functions of self-harming behaviours. Automatic reinforcement was most frequently endorsed by the adolescents. However, there was also empirical support for social reinforcement functions. One reason the authors identified for the predominance of automatic reinforcement was the possibility that these individuals were already socially isolated and therefore lacked the opportunity for social influence. The results supported the proposal of the four-function model and the authors concluded that clinicians should consider using different therapeutic approaches and interventions according to the predominant function identified in each patient. One of the main limitations of this study, as with all others is the reliance on self-report data. Another limitation is that an adolescent population was used and so it is not clear if the results would be generalisable to other populations.

The research by Nock and Prinstein (2004) has been expanded further in a recent paper by Nock (2008). The paper provides a more comprehensive analysis of the social functions of

self-harm, as most previous research has focused on automatic functions of self-harm. Nock proposes that self-harming behaviour represents a 'high intensity social signal', used when less intense forms of communication such as speaking, crying and screaming fail. It is suggested that behaviour is seen as a more 'honest' and accurate measure of what a person really thinks or feels and therefore is more likely to get a response from others. Research with adolescents who self-harm have provided some evidence of this. One study found that adolescents who self-harmed did not differ in intelligence, problem-solving or design fluency but did have significantly poorer verbal fluency than non-self-harmers (Photos & Nock, 2006). Another study reported that adolescent self-harmers are less mindful of their emotions and have greater difficulty expressing emotions than non-self-harmers (Gratz, 2006). A further study showed that self-harmers were more likely to use maladaptive and potentially harmful social responses in problem solving (Nock & Mendes, 2008).

Nock (2008) suggests reasons why the majority of past research has reported affect-regulation as the primary reason for self-harming behaviour. Almost all past studies have used self-report data to explore the functions of self-harm. Nock suggests that people are not always able to report on processes influencing their behaviour, so answers may be incomplete. It is also suggested that self-report data is likely to be biased because it is more acceptable or socially desirable to say self-harm is used for affect-regulation. This is supported by research in alexithymia, the disengagement of emotions. With alexithymia, people experience problems in recognising and describing emotional states, and in discriminating between feelings and bodily sensation of emotional arousal. Evidence from a trial by Zlotnick et al (1996) reported a higher degree of alexithymia and dissociative symptoms in self-harmers than in non-self-harmers. A further factor suggested for high prevalence of automatic functions of self-harm, is that evidence of high-arousal and poor distress tolerance which seem to support automatic functions, may actually represent antecedent conditions leading to the use of self-harm to marshal social support in order to help affect regulation (Nock, 2008).

A research study conducted by Hilt and Cha (2008) tested the four function model proposed by Nock and Prinstein (2004). They hypothesised that depressive symptoms would be related

to automatic functions of self-harm, while peer victimisation would be related to social functions of self-harm. Protective factors, related to these functions were also tested, for example, whether rumination would moderate the relationship between depressive symptoms, and whether peer/social support would moderate the relationship between peer victimisation. The results supported these hypotheses, providing substantial support for the four functions model. However, the study used a sample of teenage girls with depression and used constructs that were particularly relevant for this population, it is therefore not clear how these results could be replicated in adult populations. The study was set up specifically to test the four-function model and therefore other theories or explanations for the results were not explored.

1.3.4 Section summary

Almost all research on the psychological, cognitive and behavioural functions of self-harm has used self-report measures in which participants are asked to describe the reasons for their self-harm and the feelings associated with it. This has taken place through qualitative interviews (Coid, 1993) and also prescriptive lists which suggest a number of possible reasons for the participant to select (for example, the Functional Assessment for Self Mutilation - FASM) (Lloyd-Richardson et al, 2007). Prescriptive lists have advantages in that they may identify behaviours which participants may not initially recognise as self-harm such as hair pulling, scab–picking or picking at the skin. Although as suggested by Nock (2008) those who self-harm may not fully understand the processes influencing their behaviour, making self-report answers incomplete. Suggesting different reasons for self-harm could have the effect of increasing a person's awareness and therefore gaining more complete data but it could also influence the reasons participants give, in favour of those they perceive as more socially acceptable. Another difficulty with comparing the studies is the variety of populations used, some were with very specific samples such as female patients with borderline personality disorder, and some studies focussed on specific methods of self-harm either self-injury, self-poisoning or both. Without any uniformity in either the populations, definitions of self-harm or measures used, it is difficult to draw conclusions from the existing

research. However, nearly all studies reported emotion-regulation as the main self-report reason for self-harm with substantial support for social functions also reported.

1.4 Intervention Studies

This was not a systematic review and therefore does not claim to include all research in this area but is being used to illustrate the lack of consensus on the efficacy of therapeutic interventions for self-harm. A systematic review was not conducted because there have been several reviews (Hepp et al, 2004; Hawton et al, 1998; 1999; 2001) already published in this field. Relevant previous intervention studies were selected through a search using the OVID electronic database. Catalogues that were searched included: University of Manchester full text journals, EMB reviews- Cochrane Central register of controlled trials, EMB reviews-Cochrane database of systematic reviews, Embase 1988-2006, Ovid Medline(R) 1950-2006, Psychinfo 1985-2006. Search terms included: self-harm/mutilation/injury combined with interventions, therapy, psychotherapeutic, psychological, trial, randomised controlled trial. Thirty-nine studies were identified after initial screening. These were then filtered by hand for relevant papers that described psychological interventions. Ten were excluded for not being randomised controlled trials. Interventions that described drug trials (n=5) and trials that did not pilot an actual therapy but enhanced care (n=7) or Crisis Cards (n=2) were also excluded. The majority of the studies used mixed gender samples although one was just with female participants. There were no studies found that were conducted with prisoners. Table 6 below, summarises the 15 intervention studies that matched the criteria. Quality assessments were not used to assign scores to each paper.

Several different therapeutic models have been used in the research, which have been divided into sub-sections. Cognitive Behavioural models including Manual-Assisted Cognitive Behavioural Therapy (MACT) and Dialectical Behaviour Therapy (DBT) are discussed first, followed by problem-solving models, family and multi-modal therapies, Psychodynamic Interpersonal therapies and finally Personal Construct Psychotherapy.

Table 6 - Overview of randomised control trials for the treatment of self-harm.

Author/year	Therapy	Participants	Measures	Results
Linehan et al, 1991	Dialectical behaviour therapy	**N=44**. 22 had weekly individual & group therapy for 1 year. 22 TAU	Suicidal behaviour, emergency service use, depression, hopelessness suicidal ideation, reasons for living.	Significant reduction in SH acts 1.5 treatment vs 9 control (p<.01). No significant improvement in depression, hopelessness, SI or RL.
Evans et al, 1999	Manual assisted CBT (MACT)	**N=34**. 18 were given the manual and received an average of 2.7 therapy sessions. 16 TAU	No/rate of suicide attempts, time to next episode, depression, social functioning,	Repeat suicide attempts by 10 in each group, reduction in self-report depression (no significant results.)
Tyrer et al 2003	Manual assisted CBT (MACT)	**N=480**. 239 received therapy sessions. 241 TAU	SH risk, anxiety, depression, social and global functioning, positive and negative thinking, quality of life.	No significant differences any measures.
Liberman & Eckman, 1981	Insight orientated therapy vs behaviour therapy	**N=24** (inpatient facility). 12 received insight-orientated psychotherapy (32 hours). 12 received behaviour therapy (32 hours)	Suicide attempts, suicide ideation, depression, anxiety, assertiveness.	No significant differences in any measure.
Gibbons et al 1978	Task-centered casework intervention	**N=400**. 200 referred to social-worker for 3 month intervention. 200 referred to GP/psychiatric/other services	Repeat self-poisoning, depression, social problems.	No significant reduction in acts of self-poisoning between groups. Significant reduction in depression and social problems scales.
Hawton et al, 1987	Brief problem-orientated counseling	**N=80**. 41 received brief outpatient counseling. 39 returned to GP.	Repeat self-poisoning	No significant differences between groups.
van der Sande et al, 1997	Problem-solving	**N=274**. All received inpatient admission to a crisis intervention unit, plus aftercare by community psychiatric nurses.	Repeat suicide attempts, psychological wellbeing: SLC-90, hopelessness.	No significant differences in any measures

Author/year	Therapy	Participants	Measures	Results
Salkovskis et al, 1990	Problem- solving	**N=20**. 12 received TAU plus 5 sessions of therapy. 8 TAU	Repeat self-harm, depression, hopelessness, suicidal ideation, target problems.	Significant differences on all measures. SH acts at 6m: 0% vs 37.9% (p=.049); 18m: 25% vs 50% (p=.19)
McLeavey et al, 1994	Problem-solving skills	**N=39**. 19 had weekly individual therapy, an average of 5.3 sessions. 20 had problem-orientated crisis intervention, average 4.2 sessions.	Repeat self-poisoning, interpersonal problem-solving, SR problem-solving ability, S-R: ability to cope, self-perception.	Significant differences in SH acts at 1 yr, and in all measures except hopelessness and interpersonal problem-solving.
Allard et al., 1992	Multimodal intervention	**N=126**. 63 had 18 sessions with a psychiatrist (a free combination of therapeutic interventions. 63 treatment as usual (TAU)	Repeat suicide attempts	No significant differences in repeat suicide attempts
Wood et al, 2001	Multimodal intervention	**N=63** (adolescents). 32 received a range of group therapies. 31 TAU	Repeat suicide attempts, depression.	No significant differences on repeat attempts or depression.
Harrington et al, 1998	Family intervention	**N=162** (adolescents). 85 received 5 sessions of therapy, home based. 77 TAU	Suicidal ideation, hopelessness, family assessment device.	No significant differences on any measures.
Bateman & Fonagy, 1999	Psychoanalytic therapy	**N=38**. 19 had individual and group therapy in a partial hospitalization setting. 19 TAU	Frequency of suicide attempts and acts of SH, S-R: depression, anxiety, general distress, interpersonal functioning, social adjustment.	Statistically significant decrease on all measures. SH acts reduced in treatment group from 9-1; attempted suicide reduced from 94.7% to 5.3%.
Guthrie et al 2001	Psychodynamic interpersonal therapy	**N=119**. 58 received 4 weekly sessions of therapy in the patients home. 61 TAU	Suicidal ideation, depression, S-R acts of SH.	Significant reduction in suicidal ideation. SH acts 9% treatment vs 28% control, depression reduced not significant.
Winter et al, 2007	Personal construct psychotherapy	**N=64**. 24 received weekly sessions of therapy for 6 months. 40 TAU	Suiside ideation, hopelessness, depression, symptom severity: (GSI), A&E records of SH.	Significant reduction in suicide ideation and hopelessness after intervention. No significant differences at 6 mth.

(SH=self-harm. TAU=treatment as usual. S-R=self-report)

1.4.1 Cognitive Behaviour Models

1.4.1.1 Dialectical Behaviour Therapy

Cognitive behaviour models have tended to focus on Dialectical Behaviour Therapy (DBT) and have had some limited success. An early study by (Liberman & Eckman, 1981), compared insight orientated therapy (control) with DBT (treatment) in an inpatient setting. Participants in the experimental group received 10 days of therapy including: 17 hours of social skills training; 10 hours of anxiety management and 5 hours of family work. Participants in the control group also received 10 days of therapy but included: 17 hours of individual therapy; 10 hours of psychodrama and 5 hours of family therapy. They reported no differences in self-harm acts between the intervention group and the control group. In another study, Linehan randomised 63 female patients with borderline personality disorder, 32 to experimental DBT sessions over 12 months and 31 to treatment as usual (Linehan et al, 1991). The authors reported a significant reduction in self-harm between the control and therapy groups for the year of treatment, but no difference with regards to suicide attempts. At six month follow-up the therapy group had significantly lower levels of self-harm, but by 12 month follow-up the two groups were no longer significantly different (Hepp et al, 2004).

A recent Dialectical Behaviour Therapy trial has been carried out with adolescent female patients who persistently self-harm (James et al, 2008). The trial did not fit the criteria to be included in the table above as it is not a randomised controlled trial, but it has produced some interesting results. Subjects were referred from Child and Adolescent Mental Health Services (CAMHS). Participants were selected who had extensive histories of severe self-harm over 18 months to 2 years and who had not responded to other psychiatric treatments. In total 16 females received DBT including weekly skills training, a weekly individual session and telephone support for 6 months. The main outcome measure was acts of self-harm but participants were also assessed for personality disorder, depression and hopelessness. At eight months follow-up, the results showed a significant improvement on all measures and a significant reduction in self-harm incidents from 3.5 to <0.5 per week (p<.001). These results are promising but the sample size was small, consisting only of adolescent females and there was no control for comparison. Therefore, the results may not be generalisable to other

populations and a more robust trial needed to make any assumptions about efficacy of the intervention.

1.4.1.2 Manual-assisted Cognitive Behavioural Therapy (MACT)

Two studies were conducted using a manual-assisted cognitive behavioural therapy (MACT). The first, conducted by Evans et al (1999) included 34 participants diagnosed with a personality disorder and who had recently attempted suicide. Participants were randomised to either the therapy (18) which consisted of 2-6 sessions of therapy accompanied by a six chapter manual or to treatment as usual (16).The main outcome measure was repeated suicide attempt. However, no significant differences were found. One of the main problems with this study was low attendance at therapy, participants were not actively contacted when they failed to attend but the remaining sections of the manual were sent to them. Another problem was that the study had originally aimed to randomise 60 patients. However, they achieved just over half this figure and failed to explain why, the study was underpowered.

The second study, was a multi-centre evaluation of the effectiveness of MACT with 480 patients with recurrent self-harm (Tyrer et al, 2003). The participants were randomised to the therapy (n=239) and to treatment as usual (n=241). The results of the study were not significant in its primary outcome measure, repeated acts of self-harm. In the 12 month follow-up period, 39% in the therapy group repeated an act of self-harm compared to 46% in the control group. However, the study did report differences in suicide rates between the two groups, there were a total of 7 suicides during the 12 month follow-up period, 5 in the control group and 2 in the therapy group. As with the other MACT study, attendance at therapy was low. One of the main problems with this study was that as it took place over 5 major centres in the UK, the control group which received 'treatment as usual' varied immensely across the different sites which included problem-solving approaches (Nottingham), dynamic psychotherapy (south London), GP referral (West London and Edinburgh) and short-term counselling (Glasgow). Therefore, most of the sites provided an alternative intervention for the control group and with such a wide range of different approaches it is difficult to compare the results. The lack of significant results does not therefore, accurately show the effectiveness of the intervention, as a greater difference may have been achieved with a

standardised control. Another problem is that a 70 page manual may not be very user-friendly. There is no record of how many had actually read it and no way of assessing understanding as literacy levels were not recorded. The authors report that only 60% of the therapy group attended any CBT sessions therefore the remaining 40% may not have received any intervention. In contrast, the participants in the control group may have received an alternative therapy or intervention.

1.4.2 Problem-Solving Models

There have also been a number of studies which have used problem-solving interventions, but results have been limited. Studies by Gibbons et al (1978), Hawton et al (1987) and Van Der Sande et al (1997), all used different forms of problem solving based therapies and all showed no significant differences in reduction of self-harm (Hepp et al, 2004). However, in a small pilot study of a problem-solving intervention, Salkovskis and colleagues (1990) randomised 20 patients, 12 into treatment which consisted of 5 sessions in a one month period and 8 into the control group who received treatment as usual. They reported a significant difference in short-term reduction in the frequency of self harm at 6 months but this difference in repetition rates was not found at the 8 month follow-up which may be due to the small sample size. A second study that used a problem-solving approach (McLeavey et al, 1994) focused particularly on interpersonal problem-solving. The therapy was compared against a brief problem-orientated approach (control group). The results showed a significant reduction in self-harm repetition in the problem-solving group compared with the control group at 1 year follow-up. Although the results suggest that there may be long-term benefits with this type of intervention the sample size was small (39 in total) and so a larger scale trial is needed.

1.4.3 Family and Multi-Modal Models

A family intervention therapy piloted by Harrington et al (1998) reported no significant reduction in self-harm. This study used a sample of adolescents who self-harmed and consisted of five home-based sessions of family therapy, focusing on improvement in communication in the family. Two other studies that showed little or no effect on self-harm

used multimodal styles of intervention. Wood et al (2001) applied a 'manualised developmental group psychotherapy' that comprised a variety of techniques from other therapies, to a sample 63 adolescents, aged 12-16 years old. The authors reported no significant reduction in rates of self-harm but they did find that the time to the next self-harm episode was longer after the therapy. In a similar study conducted with adults, Allard et al (1992) looked at the effects of 18 therapy sessions which included one home visit and active reminders for missed appointments to treatment as usual. The study reported no benefits in the intervention group after a 2 year follow-up and also stated a higher repetition rate in the patients who completed the full number of sessions (one third of the sample). While these studies all used different therapies and the duration and intensity of these interventions varied greatly, none of them produced significant results. This may be due to a number of factors including small sample sizes, poor attendance to therapy and no description of the 'treatment as usual' control groups. More rigorous research methods may have produced different results.

1.4.4 Psychodynamic-Interpersonal Therapy Models

Two studies have been conducted using a brief psychodynamic-interpersonal therapy (PIT) approach and these have both had significant results in regards to reduction of incidents of repeated self-harm. The first was that by Bateman and Fonagy (1999), which consisted of an 18-month partial hospitalisation of self-harm patients with borderline personality disorder. Each of the 19 participants in the experimental group attended once weekly individual and thrice weekly psychoanalytical group psychotherapy, the control group consisted of 19 participants who received treatment as usual. Despite the small sample size, the authors observed statistical significance in the reduction of acts of self-harm, from 9-1 in the treatment group with no significant change in the control group. The authors also reported a significant difference in attempted suicide rates for the treatment group which reduced from an admission rate of 94.7% to 5.3% at 18 months. These are encouraging results even though they may not be generalisable to other populations as such a specific population was used (hospitalised patients with Borderline Personality Disorder). Although there was no analysis of gender differences for effectiveness of treatment in this trial 13/19 participants in the

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treatment group and 9/19 in the control group were female. However, the study was underpowered to determine any gender effect.

Guthrie and colleagues (2001), adopted a brief psychodynamic-interpersonal therapy (PIT) approach. The authors randomised 119 self-poisoners, presenting to the A&E department of one Northwest hospital, to the intervention which consisted of four sessions of therapy (58) or to routine care which was referral to a GP (61) (Guthrie et al, 2001). A significant difference in repeated self-harm between the intervention and the control group (proportion repeating 9% compared to 28% in the control group, difference = 19%, p=0.009) was reported. Although this is a very promising result for the effectiveness of PIT, there were some substantial limitations with this study. For example, the control group were referred to their GP after presenting at the hospital, but there were no details regarding whether patients saw their GP or not, and if so did the GP provide psychological treatment, prescribe medication, or refer them on to other practitioners. This type of control is also limited in that it does not account for any unknown confounders such as one-to-one contact with another person which is unrelated to the actual therapy.

Another problem was that although the pilot study included both male and female participants (66 females, 33 intervention vs 33 control) the results were not fully explored as to any differences in outcomes between genders. It would also have been useful if the authors had looked at the differences between those who were recruited at their index act of self-harm and those who were repeaters, to identify if there were any differences in efficacy for first time or repeat self-harmers. Other limitations to this study were that only self-poisoners were included in the study, excluding people presenting for self-injury. Large numbers of people who presented to the hospital for self-poisoning were also excluded, out of a total of 587 people only 233 (40%) were eligible. The study excluded anyone without a registered GP or with no fixed abode and also those with more severe mental or physical health problems. As a result the authors reported that those who were excluded were more likely to have a history of self-harm (59% vs 45%) and greater suicidal intent (expressed a wish to die 76% vs 46%, had left a suicide note 23% vs 5%) Therefore, it is unclear how generalisable the results are to other populations.

1.4.5 Personal Construct Psychotherapy

A recent trial has been conducted using Personal Construct Psychotherapy (Winter et al, 2007). The sample consisted of 64 adults who presented to a hospital A&E department for self-harm (self-poisoning and self-injury) in a three year period, 24 were randomised to the therapy and 40 to treatment as usual. Participants in the treatment group were offered 6 sessions which could be extended if agreed by both the therapist and the client. Participants were assessed at recruitment, immediately after the treatment phase and 6 months later. Data was also collected from A&E records of any subsequent presentations to hospital for repeat self-harm over a 3 year period. Results showed no significant differences in rates of repetition between the conditions. Although there was a significant reduction in suicidal intent and hopelessness in the treatment group at immediate follow-up, this difference was not evident by 6 month follow-up. One of the problems with the study was the high attrition rate. Of the 24 randomised to the treatment arm only 13 took part in the 6 month follow-up and of the 40 randomised to the control, only 11 took part in the 6 month follow-up.

1.4.6 Section summary

One of the main limitations of the intervention studies to date involving self-harm patients is that they are often under-powered due to the relatively small sample sizes. Another limitation is that the samples have largely come from people who have attended a hospital following an act of self-harm. However, it is thought that up to 33% of cases do not lead to medical contact (Samaritans, 2007). Most research has been conducted on self-poisoning rather than others forms of self-harm, such as self-injury, so conclusions taken from these studies must be treated with caution. Limiting the research in this way means the results are only applicable to very specific populations (for example, self-poisoners presenting at A&E departments) and therefore further research is needed to look at the effects of interventions on other high-risk populations. Also people who self-cut as a method of self-harm are more likely to repeat than those who use other methods (Kapur et al, 2006). It is therefore important to try and find interventions that work with these individuals. There were no

intervention trials found that tested an intervention for self-harm on a prison population. Therefore caution is needed in applying these results to a forensic population.

In the randomised control studies 'treatment as usual' has rarely been measured or explained fully. In community samples there may be huge variance in what is considered treatment as usual and no attempts have been made to follow-up what patients actually received during trials, some may have had more intensive intervention than those in the treatment groups. Without any knowledge of what control patients received it is difficult to interpret the results. Therefore, more standardised controls are needed in future studies (Hawton et al, 2005).

All of the intervention studies so far have developed an intervention and then looked at how effective it is with certain groups of self-harmers and the majority have had limited success in reducing self-harming behaviour. Another limitation is that many of the previous studies have excluded large numbers of patients due to: severe mental or physical health problems; no fixed abode; no registered GP; high risk of suicide; and drug or alcohol problems. All of these variables are over-represented in the female prison population and it is this high risk group that the prison system particularly needs to work with if they are to reduce levels of suicide and self-harm.

Psychodynamic interpersonal therapy has shown significant results in reducing acts of self-harm. One explanation which could explain the positive results in both of the PIT therapy studies is that all participants in the therapy groups were actively contacted after missed sessions, meaning that the attrition rate was much lower than in other studies. Many of the studies above reported high rates of attrition in the therapy groups which supports the view that self-harmers are a very difficult group to engage and retain in psychological interventions. Attendance of therapy sessions was also higher in the study by Guthrie et al (2001) and this may be due to the relatively short duration of the treatment. Long-term or intensive interventions are generally not well accepted by patients who self-harm (Allard et al, 1992).

1.5 Self-harm in prisons

This section will explore the major differences in rates, risk factors and outcomes of self-harm in prisons as compared to the general population. It will go on to discuss prevention of self-harm and self-harm interventions in prisons.

1.5.1 The prison population

The current prison population in the UK is 83,925 (ONS, February 2010) and projected rates see this increasing to between 90,250 and 106,550 by 2013 (de Silva et al, 2006). There are currently around 4224 women in prison (ONS, February 2010) and the number is increasing at a much greater rate than the male prison population (Prison Reform Trust, 2007). Over the last decade there has been a significant increase in the women's prison population; between 1997-2007 the female prison population increased by 126% compared to a 46% increase in males (ONS, 2010).

1.5.2 Rates of self-harm in the prison population

Self-harm is a considerable problem amongst women prisoners, with 10% of sentenced women and 9% of remanded women engaging in self harm within the prison setting (ONS, 1998; Shaw et al., 2003; 2004). In a press release from The Howard's League for Penal Reform (April 2008), it was reported that rates of self-harm in UK prisons had increased by almost 40% in the last five years. In 2003, there were 16,393 reported incidents of self-harm in prison, which rose to 22,459 reported incidents in 2007. This rise of 37% is almost four times the rise in the prison population for the same period, which was just over 9.5%. However, the increase in reported rates of self-harm may be partly due to improved monitoring and recording methods adopted by the prison service during this period. Similar increases have been reported in Scotland where rates of self-harm have more than doubled in the past six years (an increase of 140% since 2004). The greatest increase could be seen in Cornton Vale, Scotland's only all-female prison where figures rose from 7 incidents in 2004 to 64 incidents in 2008. However, The Scottish Prison Service also attributed the rise to more

robust reporting of incidents (CJScotland, 2011). The 3-year rolling average annual rate of female prisoners who self-harm per 1,000 prisoners was consistently 5 times the rate of male prisoners for the 3-year periods ending 2006 to 2008. In the 3 years ending 2008, the female rate was 326 and the male rate was 62 per 1,000 prisoners. Female prisoners who self-harm do so more frequently than male prisoners. In 2008, an average of 9 incidents for each female prisoner self-harming compared to 2 incidents for each male self-harming (MoJ, 2010).

1.5.3 Risk factors in the prison population

Rates of mental health disorders are higher in the prison population than in the general population. Singleton et al (1998), reported that psychosis was present in 7% of males and 15% of females, neurosis in 40% of males and 68% of females and personality disorder in 64% of males and 50% of females in the prison population. This is substantially greater than in the general population where psychosis was present in 0.6% of males and 0.5% of females and personality disorder in 5.4% of males and 3.4% of females (Jenkins et al, 2005).

Women who self-harm in prison may have a particularly high risk of poor outcome, as their rates of mental illness, including personality disorder, are higher than in the general population. Forty percent of remand and 40% of sentenced women reported that they had received help or treatment for mental illness prior to coming into prison (ONS, 1998; 2001). Women in prison also have complex needs with high rates of co-morbid substance misuse and personality disorder (Maden, 1996). According to an ONS study (1998), 98% of female remand prisoners who had attempted suicide had a personality disorder in comparison to 76% who had not. They also reported that around a third of female sentenced and over half of the female remand population that had attempted suicide were assessed as having a psychotic disorder. The study found that 59% of remanded and 44% of sentenced females who had attempted suicide were dependent on stimulants.

There has been a limited amount of research into social aspects which are unrelated to presence of mental disorder (Towl & Crighton, 1997) in a prison population. One study conducted by Jenkins et al (2005) used a survey sample of 61944 prisoners across 131

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prisons. The authors reported that social variables made a significant contribution to suicide attempts. The most significant factors were found to be: being young, being female, number of stressful life-events, lack of social support and having been in local authority care. These results are supported by social risk factors in the general population (Meltzer et al, 2002).

General population case-control studies identify single status, unemployment, low income, retirement, disability and family history of mental disorder and or suicide, as risk factors for self-harm and suicide (Sinclair et al, 2005). Women prisoners often have many and complex psychosocial problems. The Corston Report (2007) was produced as a result of a commission to review women with particular vulnerabilities in the criminal justice system. Over nine months a series of consultation events, prison visits, hospital and community centre visits were conducted by Baroness Corston. The aim was to gather information and make recommendations about the current situation for vulnerable women in the criminal justice system. Broadly, its conclusions supported evidence that women prisoners had disproportionately high levels of risk factors for self-harm and suicide. It was reported that around 50% of women prisoners reported histories of domestic violence, that around a third reported previous sexual abuse, including at least one incident of rape in 1 in 20 women. Another factor that may increase women prisoners risk of self-harm and suicide is drug addiction. The review stated that around 85% of women prisoners had a substance misuse problem prior to arrest and that around 70% required clinical detoxification in comparison to 50% of male prisoners. Another important factor is the role of women in the family. It was reported that two thirds of women were living with their children immediately prior to incarceration and that only 9% of these children were being looked after by the father whilst the mothers were in prison. Thirty-four percent were single parents and 20% had no fixed accommodation. Many came from poor socio-economic backgrounds, with 40% of women prisoners reporting that they had not worked in the last five years. Figures show that 18,000 children a year are separated from their mothers by imprisonment (The Corston Report, 2007).

It has been suggested that as well as having the general risk factors as described for other populations, prisoners may also have a number of criminogenic risk factors, further

increasing their risk for self-harm. Hall, Fisher and Dear (2006) have proposed a number of criminogenic factors which they believe influence self-harming behaviour. These include: rigidity, impulsivity, anger arousal, anti-social attitudes, attribution of hostile intent and a sense of entitlement. The authors present the idea that a combination of these factors can be used to explain not only the acts that lead to incarceration but also maladaptive behaviours such as self-harm whilst in prison. It is suggested that prison settings prevent individuals from using existing maladaptive coping strategies, such as violent behaviour or alcohol or drug use, leaving prisoners with feelings of frustration, anger and hopelessness. In particular the authors focus on *an inflated sense of entitlement* in offenders which leads them to place unrealistic demands on prison staff and when staff fail to meet these demands, it enforces their sense that they are being treated unfairly (that staff are neglecting them or picking on them) resulting in self-harming behaviour. However, as the authors acknowledge these factors and suggested pathways to self-harm are theoretical and have not been empirically tested.

1.5.4 Outcomes of self-harm in custody

1.5.4.1 Suicide ideation

Several studies have demonstrated higher prevalence rates and increased risk of suicide in the prison population. Jenkins et al (2005), compared the prevalence of suicidal thoughts and attempts among prisoners with a matched sample of people living in private households (taken from the second National Psychiatric Morbidity Survey of people living in private households by Singleton et al (2001). The authors reported that in their lifetime, 55% of female prisoners and 40% of male prisoners had experienced suicidal thought, in comparison to 4% and 14% respectively of people in private households. They also found that nearly half of female remand prisoners admitted to having attempted suicide in their lives and over a quarter, of attempting it in the last year. In comparison, about a quarter of male remand prisoners had attempted suicide in their lives and around a sixth had attempted it within the previous year. These figures were markedly raised in comparison to the general household population where only 1% of women or men had attempted suicide in the past year (Jenkins et al, 2005).

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1.5.4.2 Rates of suicide in custody

There have been a number of studies into suicide rates in the prison population. An early study found that the rate of suicide was about three times that of the general population (Topp, 1979). The study examined trends from 1880 to 1971 and found a total of 775 cases. Topp concluded that prisoners were at higher risk of suicide within the first few months of a sentence, and that prisoners given longer sentences appeared to be at increased risk of suicide. Another study examined trends between 1972 to 1987 (Dooley, 1990). Dooley included 295 cases and found comparative results to Topp in that prisoners were at higher risk during the first few months of their sentence and that prisoners on long-sentences were also at higher risk. However, contrary to Topp, Dooley reported that remand prisoners were over-represented in the suicide figures. In a contemporary study, a national clinical survey of suicide by prisoners, Shaw et al (2004) reviewed all incidences of suicide in prisons over a two year period 1999-2000. These results support the earlier studies in that risk was related to time in prison. During 1999-2000, 172 suicides occurred, 85 (49%) were by prisoners on remand, 55 (32%) occurred within 7 days of reception and 110 (72%) had a history of mental illness. All of these studies show an increased risk of suicide in the prison population as compared to the general population and confirms that this is a high risk group which needs to be targeted if national suicide rates are to reduce.

1.5.5 Prison Service strategies to reduce self-harm and suicide

In tandem with suicide prevention documents, the Home Office produced a number of reports and strategic documents dealing specifically with suicide and self-harm in prisons. The strategic document 'Caring for the Suicidal in Custody' (HMPS 1994), proposed a move towards a multidisciplinary approach for caring for suicidal prisoners rather than the responsibility lying solely with health care staff. This strategy sought to encourage the involvement of officers, prisoner's families and the Samaritans in a 'whole prisons' approach to suicide and self-harm reduction. In a review of the implementation of the above proposals, HMCIP Sir David Ramsbotham (HMIP, 1999), noted that implementation had been undermined by a lack of attention and commitment from senior managers who had failed to realise the scale of the cultural shift needed to enable staff to care for those at risk of suicide

and self-harm. Another flaw to the above strategy was that it failed to take into consideration the individual needs of vulnerable groups such as women, young prisoners and those held in local prisons, which had significantly higher rates of suicide and self-harm (HMIP, 1999).

A further review of prison suicide and self-harm policy followed in 2001, which was reported in 'Prevention of Suicide and Self-Harm in the Prison Service' (HMPS, 2001). The report recognised the success the Prison Service had made in raising staff awareness of the risks of self-harm and for successfully managing prisoners on the F2052SH system. The review proposed a three year implementation programme developing a supportive culture, with good staff-prisoner relationships being paramount to realising this goal. The report also recommended that particular attention should be given to prisoners in the early stages of their sentences and that staff working in high-risk locations such as reception, induction and detoxification units should receive advanced suicide prevention and mental health training.

There have been several initiatives aimed at reducing suicide rates in prisons. One strategy 'Caring for the Suicidal in Custody', launched 1994, failed to be successfully implemented (HMCIP, 1999) and has been replaced with the Safer Custody Programme. The broad strategy aims to "raise the standards of prisoner care and make prisons safer places in which to live and work" (Narey, 2002. Press release on Prison Service Website 7/1/2002). The programme is currently being implemented by the Safer Custody Group and one of the primary goals is to reduce prison suicide. The strategy includes improved identification and screening of those at risk of self-harm and suicide, through the Assessment, Care in Custody and Treatment (ACCT) process, which replaces the F2052SH (the suicide and self-harm at risk form used to document the process of care in prisons) process with a more focused care planning approach. It also includes the introduction of 'First Night Centres' The aims of the first night services are to: 1)Reduce the likelihood of prisoners attempting suicide or harming themselves during their first 72 hours in custody. 2) Reduce the anxiety faced by prisoners to enable them to cope better with the emotional impact of imprisonment. 3) Reduce the anxiety faced by prisoners' families and loved ones. 4) Support the maintenance of contact and visits between prisoners and families. 5) Ensure that information about resources and support available to new prisoners is provided (PSO 2700).

The strategy is supported by a number of Prison Service Orders (PSO's) which are long-term mandatory instructions for all prison staff. Specifically PSO 2700 refers to the prevention and management of self-harm. The desired outcomes from the orders contained in PSO 2700 are:

- o *Reduction in distress and improved quality of life for all who live and work in prisons.*
- o *Reduction in the number of incidents of self-inflicted death and self-harm.*
- o *Vulnerable individuals are provided with positive care and support that gives them coping mechanisms other than self-harm.*
- o *Staff are equipped to carry out this difficult work and provided with support as required.* (HMPS, 2008)

1.5.6 Self-harm interventions in prisons

The search for any self-harm intervention trials, described in section 1.4, found no trials that were conducted in prisons. However, a recent review had been conducted by the National Offender Management Service (MoJ, 2009). The report stated that there were a number of therapeutic interventions for women who self-harm being implemented in individual prisons within the women's estate. They reported that there were four programmes running across five establishments. Alternatives to Self-Harm (ASH), is a CBT based programme running in HMP Holloway, consisting of six sessions of group exercises and discussions, over a 2 to 3 week period. The Carousel project at HMP Eastwood Park, is another CBT based programme consisting of group and individual therapy sessions over an eight week period. Holloway Skills Training (HOST) is a rolling DBT based programme. The course consists of four, eight week modules of group work and individual therapy. The Safe project is a problem solving based therapy focussing on awareness and coping skills run over three consecutive days, running at HMP Bronzefield and Peterborough.

Although these programmes have been running for some time there are a number of limitations which affect their suitability. The main limitation to all of these self-harm interventions is that there is little evidence from evaluation studies. They have been implemented by psychological services within the prisons rather than by specialist teams.

Another area for consideration is that both ASH and Carousel are CBT based programmes yet the previous trials as described in section 1.4, have reported no significant results for CBT based interventions. The HOST programme uses a DBT based therapy. The only trial using DBT, conducted by Linehan et al (1991), reported a significant reduction in acts of self-harm between the therapy and control group (section 1.4.1) therefore there is evidence of efficacy for this model in the community. However, the programme is relatively long in duration. Two of the five problem based trials reviewed in section 1.4.2, reported significant results with regards to reduction in self-harming behaviour (Salkovskis et al, 1990; McLeavey et al, 1994). Therefore there is also strong evidence for a problem based programme in community populations. All of these interventions are being delivered in women's prisons. However, none of them have been evaluated and therefore the effectiveness of these programmes remains unknown.

1.5.7 Section summary

There are high rates of self-harm and suicide in prisons linked to increased risk factors such as mental illness, drug dependency, and high levels of history of violence, rape and childhood abuse. Other factors which have been suggested include separation from children and family support which may increase anxiety, guilt and feelings of hopelessness. As a likely consequence of these risk factors, the rates of self-harm and suicide are particularly high in women prisoners and it appears to be increasing. Several Government documents have been produced as a result of the increased risk of self-harm and suicide in prisons (HMCIP, 1999; HMPS/NHS Executive, 1999). However, conclusions drawn from the Government literature such as the Corston Report (2007) must be applied with caution as many are produced in line with current political opinion and they are not equivalent to scientifically produced peer reviewed research. Overall, the above literature shows that self-harm and suicide are important issues, particularly in the prison system and particularly for women prisoners. Only four of the 14 women's prisons in the UK have implemented a specific self-harm intervention. However, to date, none of these interventions have been evaluated.

1.6 Factors affecting the management of self-harm in prisons

Search strategies to find literature specifically relevant to attitudes towards self-harm in prisons and the effects on staff, included the OVID online electronic database and internet searches. Catalogues searched on OVID included: British Nursing Index and Archive 1985-present; EMBASE 1980-present, HMIC 1979-present, OVID MEDLINE(R) 1948-present, PsychINFO 1806-present, University of Manchester full text journals. Search terms included: self-harm/injury/mutilation/suicide- attitudes towards, staff attitudes, officer attitudes, attitudes in healthcare, officer roles, custody versus care, healthcare in prisons, medical staff attitudes. Department of Health, Criminal Justice System, HM Prison Service and The Howards League for Penal Reform archives and press-releases were also searched using the terms above. The results were hand searched for relevance and citations used to identify any further relevant literature.

1.6.1 Healthcare in prisons

Until 1996, the Prison Health Service had been responsible for providing health care to prisoners. Suggestions had been made that the NHS should assume responsibility for prison health care since its inception in 1948. However, these recommendations had gone unheeded. A series of damning reports produced by Her Majesty's Chief Inspectorate of Prisons, reported the continued failure of the Prison Health Service to provide an adequate standard of health care (HMPS/NHS, 1999). The report '*Patient or Prisoner?*' (HMCIP, 1996) once again called for the NHS to take over responsibility for health care in prisons. The report identified that healthcare staff in prisons, were isolated from other health care professionals and seriously under-trained, resulting in health care that was inadequate for prisoners needs. It also highlighted the impact prison can have on prisoners' mental health and the need for increased provision of mental health care. The overall recommendation was that prisoners were entitled to the same level of health care as that provided in society.

The joint Prison Service and National Health Service Executive Working Group was formed to improve prison health care services. The Working Group visited 38 prisons to determine

the range of organisational models of health care that were in operation. The resulting report-'The Future Organisation of Prison Health Care' (HMPS/NHS, 1999) proposed significant structural changes and guidelines to counter the inconsistencies in health care services that emerged from the review. The over-riding concern was to deliver services on the basis that prisoners are entitled to the same level of health care as that provided in society. However, it was not until 2000, that the Working Group's recommended structural reforms were implemented and the Home Office-based Directorate of Health Care for Prisons was replaced by the Department of Health, Prison Health Policy Unit. One result of this change was the elimination of the Health Care Officer (HCO) role in prisons in favour of qualified nursing care, separating out the custodial and nursing functions of prison staff.

Even though these changes have taken place there is still evidence of conflict between custody and care in prisons. Prisons were designed for punishment, correction and more recently, rehabilitation to the community (Watson, Stimpson and Hostick, 2004). These goals may be seen to conflict with the aims of healthcare and as reported in *'Patient or Prisoner?'* (HMCIP, 1996) and the need for security and discipline can cut across the perception of prisoners as individual patients. Nearly all research and review documents in past literature, report a constant tension between security and care and there appears to have been little change in the last decade. It has been reported that the inflexible and discipline dominated environment can often restrict healthcare practitioners (Norman & Parrish, 1999). One of the difficulties faced by healthcare practitioners in prisons is the sheer volume of prisoners needing care. It has been stated that 10% of the prison population report sick every day, eight times higher than the rates recorded in most primary care settings (Wool, 1993). Mental health care, as delivered by In-Reach, also face these problems. The original remit of In-Reach, was to work with people suffering from severe and enduring mental illness, but national policy has broadened the definition to include anyone with any mental disorder (Brooker et al, 2005) which has therefore greatly increased the number of patients. Self-harm does not come under any specific service in prisons. Although some prisoners may require primary care from nurses, few are referred to a doctor and many do not warrant In-Reach services. The ACCT process (as described in Section 1.5.5) is the main form of intervention for the majority of self-harmers and so prison officers are often the most active in their care.

1.6.2 Prison officer roles

Prison officers face both role conflict and role ambiguity in their duties. In the past, their primary duty was to maintain discipline and enforce the prison regime. However, their roles have become more expansive and may now include: supervisor, custodian, disciplinarian, administrator, observer, manager or mentor (Liebling & Price, 2001). Although it has been argued that they have been left unguided in these new roles (Hay & Sparks, 1991). According to Liebling (1992) officers have more expertise and are more comfortable in their traditional custodian or disciplinarian roles which are more clearly defined. Prison officers often lack the training and confidence to deal with prisoners with mental illness, who self–harm or require support and interventions, though their roles increasingly include these (Howard League for Penal Reform, 2003).

Prison Officers require no previous qualifications and receive just eight weeks of training. The training is generic and focuses mainly on security, discipline and restraint techniques, with no specific training for working in female establishments. On-going staff training is promoted but often succumbs to operational difficulties such as overcrowding and is therefore given low priority (Coyle, 2005). The long-term implications of this is that people with no prior qualifications and just eight weeks of generic training are expected to fill a number of challenging and demanding roles (Coyle, 2005). Prison officers fulfil an important role in the prison, not only as discipline staff but also as the people who have most contact with the prisoners. The time they spend means that they have the opportunity to form bonds with prisoners and so are well placed to detect changes in an individual's behaviour and mood. Prison officers are also more likely to be aware of any crisis situations that a prisoner might be facing and so be able to link in with services to ensure that individuals receive the care they need. It is therefore important to try and break down the conflict between custody and care. In order to achieve this goal the structure of prisons must change and the focus shifted away from punitive values towards a more care orientated environment.

1.6.3 Staff attitudes towards self-harm

1.6.3.1 Healthcare staff attitudes

A number of previous studies have explored attitudes of medical staff towards patients who self-harm and present to hospitals (McAllister, 2003; Friedman et al, 2006; Crawford et al, 2003; Patterson, Whittington & Bogg, 2007a). All, with the exception of the study by Crawford et al (2003), report evidence of negative staff attitudes. The studies found that people who self-harm have tended to be stereotyped as a group, and one study reported that professionals including mental health nurses, general nurses and social workers, may build negative emotional responses along with hostile cognitions and rejecting behaviour resulting in antipathy towards those who self-harm (Patterson, Whittington & Bogg, 2007a). It is suggested that antipathy in professional carers may act to increase the risk of future self-harm in patients and may negatively influence help seeking behaviour and interfere with a user's willingness to engage with services (Patterson, Whittington & Bogg, 2007b). There is also evidence that those who may be initially empathic can develop negative attitudes when faced with repeating episodes and little improvement in clients (Watts & Morgan, 1994). A lack of understanding as to why someone self-harms can create a barrier, but staff may also create their own barriers in order to protect themselves. This may be due to a lack in confidence in treating those who self-harm (McAllister et al, 2003). One limitation is that there is no current research on prison healthcare staff attitudes towards prisoners who self-harm.

1.6.3.2 Prison Officer attitudes

It has been stated that frequent incidents of self-harm and other disruptive behaviour results in a sense of loss of control in prison staff. Other effects on staff include: the loss of morale, loss of drive and motivation, mental/physical and emotional exhaustion and professional isolation (McCann, Ball & Ivanoff, 2000; Morgan et al, 2002). There has been some research into prison officers' attitudes towards self-harm in adult male prisoners such as Ireland and Quinn (2007), Pannell, Howells and Day (2003) and The Howard League for Penal Reform (2001). Negative attitudes in prison staff have been linked to a number of factors including a lack of knowledge of the causes and functions of self-harm, a strong belief in the manipulative behaviour of self-harm, and the feeling that dealing with such prisoners is

beyond their capabilities (Ireland & Quinn, 2007). In the report produced by the Howard League (2001) they identified that staff appeared to struggle with understanding the actions of self-harmers. The report showed that existing prison and staff cultures perpetuate the strongly ingrained belief of self-harm as manipulation and attention-seeking behaviour. The authors also reported that officers were often concerned about their peer's perceptions of them if they became too involved in helping prisoners and pejorative terms such as 'carebears' for such individuals were frequently used (Howard League, 2001). The use of pejorative terms and labelling are commonplace in the prison service, and it has been argued that minimisation of self-harm by labelling and 'normalising' language allows both parties to avoid confronting the realities of self-harm (Liebling, 1992). Other research has noted that prison staff often try to distinguish between genuine suicide attempts and acts of self-harm which they believe are intended to manipulate staff or the prison system (Liebling, 1992). Dear et al (2000) stated that this desire to distinguish between groups depending on motives for self-harm, stems from the belief that each requires a different kind of intervention. Staff feel that genuine suicide attempts require psychiatric care and attention but also fear that 'rewarding' manipulative self-harming behaviour with attention may perpetuate the behaviour.

However, the evidence is not conclusive. Contrary to other research studies, one study reported that officers mainly perceived self-harm to be a form of communication and less commonly as an attention seeking behaviour and suggested that officers' attitudes did not change as a result of frequency or severity of self-harm acts (Pannell, Howells & Day, 2003). The authors also went on to state that negative responses by prison staff may actually reinforce the behaviour. Reacting in a way that minimises the behaviour may increase the self-harmers perception of being alone and unheard, whereas reacting with disgust, frustration or anger may confirm the self-harmers sense of worthlessness and shame (Pannell, Howells & Day, 2003).

There is also a growing consensus that the quality of relationships between prisoners and prison officers is key to reducing self-harm and suicide in prisons (Scott-Denoon, 1984; Liebling, 1992; Pannell, Howells & Day, 2003). These authors all argue that the role of

correctional staff in recognising and reacting to potential motivators for self-harm in individual vulnerable prisoners is the single most important contributor to suicide prevention.

1.6.4 Section summary

Even though significant changes have been made to the ownership and management of health care in prisons, there is still conflict between custody and care. Within this there is evidence of conflict in prison officers as their roles have become more expansive to include prisoner care as well as their original disciplinary role. The conflict in roles may have an impact on prison officer attitudes to self-harm by prisoners and the literature shows that existing prison and staff cultures perpetuate the strongly ingrained belief of self-harm as manipulation and attention-seeking behaviour. This in turn may negatively affect prison staff's treatment of prisoners who self-harm. There is also evidence of negative health care staff attitudes towards patients who self-harm in the community but there is a lack of research into prison health care staff attitudes. It is suggested that negative attitudes in professional carers, may act to increase the risk of future self-harm, negatively influence help seeking behaviour and interfere with a person's willingness to engage with services.

1.7 Research in prisons

There has been an emphasis on maximising time in prisons to deliver interventions. However, there are likely to be barriers to the effectiveness of such interventions. Firstly, and one which applies particularly to women prisoners, is the relatively short length of sentences in 'Local' prisons, meaning that it is difficult to deliver and complete even brief interventions. Secondly, there is the question of readiness to engage in therapies or to undergo change in the prisoners. Readiness to engage has a particularly strong impact on outcomes of therapies as highly motivated people are more likely to show good outcomes whereas unmotivated people will likely have poor outcomes or fail to complete interventions (Towl, 2006). Thirdly, even though prisoners may be considered 'captive' samples, drop-out rates from therapies such as CBT or anger management are high (Towl, 2006). Translating

any intervention into a prison environment raises many unique problems associated with delivering therapies in the prison system. Female offenders are a diverse group, many with complex needs including comorbid mental health problems, drug and alcohol dependency, with poor education and problem-solving skills, history of abuse and violence *et cetera* (ONS, 1998).

Any intervention that is introduced into a prison environment faces a number of problems both because of the need to fit into the regime and in working with this potentially high needs population. Self-harm is a particular problem in the women's prison estate and so there are many women who require the intervention. There are also reasons why women may see it as advantageous to attend the therapy such as personal attention from a therapist and time out of cells. Futhermore, the prison regime allows little time when prisoners can access services such as education, employment, healthcare and interventions so waiting lists are inevitable. For these reasons, selection criteria for prisoners attending therapy needs to be rigorous and the intervention must be brief and focused to maintain interest and also to ensure that the therapy can be completed before women are released or transferred.

Prisons also have limited resources and due to overcrowding across the prison estate space is limited, so it is not always possible to conduct interventions in one set place or at exact times due to staffing and resource problems. Another problem is that it may be more difficult to develop the patient-therapist relationship which is essential for effective therapy as it is a very close working environment and women may not be willing to work with prison staff they see in other roles or staff they see on a daily basis. There seems to be a lack of literature regarding the difficulties of conducting a therapeutic pilot study and in delivering effective treatments in the prison environment.

There has been very little research into the feasibility and effectiveness of interventions with prisoners. However, an American study has looked at participant retention in drug treatment programmes, examining both individual- and program-level predictors. The study by Pelissier, Camp and Motivans (2003), consisted of 1446 individuals (1175 males, 271 females) from 20 prisons. They reported that a high percentage of the sample completed

treatment (84%), but that 10% were discharged from the treatment for disciplinary reasons and 6% voluntarily dropped out of the treatment. The results showed that females were significantly more likely to voluntarily drop out of treatment. Motivation for change was the only other significant individual-level predictor, but only with those who voluntarily dropped out of treatment. The authors declared that the gender differences may be a result of programme differences and not individual differences.

1.8 Conclusions from the literature review

1.8.1 Brief summary

The current literature concerning self-harm and suicide has shown firstly that self-harm is a major public health problem, secondly that people who self-harm are at increased risk of suicide and thirdly, that women prisoners have a higher rate of self-harm than women in the general population and than male prisoners. Women prisoners are therefore at particularly high risk of self-harm and suicide and yet to date no evidence based, validated, interventions have been implemented in the female prison estate. This study intended to build on an intervention found to be effective in the community and to describe a methodology of conducting a therapeutic intervention in a prison environment.

1.8.2 Review of the literature

Defining self-harming behaviour is difficult and faces a number of barriers. Many of the problems lie with the range of behaviours which are being described and also the fluidity of both the methods used and the functions of the behaviours. Although many different terms and definitions have been generated, many of which have limitations, there is still no universally accepted definition. Case definition between those with or without suicidal intent is therefore problematic and comparison of results across the field is extremely difficult.

There is evidence for a number of risk factors which have an effect on later self-harming behaviour. One of the most researched factors is that of childhood experiences. Within this

area childhood sexual abuse seems to be the most consistent risk factor in a wide variety of populations. A number of researchers have suggested it is likely that self-harm is a result of an interaction between different childhood risk factors (Linehan, 1993; van der Kolk, 1996). Horrocks and House (2002) conclude that self-harm may be affected by the interaction of both long-term vulnerability factors such as childhood experiences and short-term or precipitating factors including life problems, work or health problems and drug and alcohol misuse which provoke specific incidents of self-harm. However, there is no existing research on how these different risk factors may interact (Gratz, 2003) and there is no evidence of an exclusive relationship between any risk factor and self-harming behaviours. Many of the studies were limited by inadequate sample sizes and most did not explore gender differences. Evidence that there may be differences in risk factors for females and males comes from Gratz et al (2002) who reported that physical abuse was a significant predictor of self-harm in female students but not in male students, possibly due to the small sample size. Therefore the results of most studies are too general and where positive relationships are found between risk factors and self-harm, they may not show significant relationships in specific populations.

Previous self-harm is the most significant predictor of subsequent suicide. Furthermore, several studies have reported that self-injury shows a greater risk of subsequent suicide than does self-poisoning and also that it is likely to happen sooner (Cooper et al, 2005; Kapur et al, 2006; Lilley et al, 2008). It has been estimated that in England self-harm is the reason behind over 200,000 hospital presentations a year (Hawton et al, 2007). Self-harm is more common among females than males, in most studies around two thirds of the patients who have self-harmed are female (Hawton et al, 1999).

A number of functions have been endorsed for self-harming behaviour. These fall into two categories, firstly, automatic functions which are primarily based around affect-regulation and secondly, social functions which act as a method of marshalling social support or affecting a situation or environment (Favazza, 1996). Of these two functions, automatic reasons have been most commonly endorsed in past research (Herpetz, 1995; Nock & Prinstein, 2004), but it is acknowledged that the results may be due in part to methodological

problems in the research. More recent studies are now reporting higher levels of social functions than previous research (Brown et al, 2002; Lloyd-Richardson et al, 2007). The three studies into the functions of self-harm in forensic populations all reported automatic functions only, but these results may be due to a number of methodological factors. One of the most common limitations with previous research is the reliance on self-report reasons for self-harm. It is likely that this method is biased towards automatic functions, which may be regarded as more socially acceptable (Nock, 2008). Another limitation with self-report is the assumption that people fully comprehend their behaviour and the processes involved, when there is evidence that people who self-harm have poorer verbal fluency and difficulty expressing emotions (Photos & Nock, 2006). The four function model proposed by Nock and Prinstein (2004) is a comprehensive model which is being validated by current research.

The intervention trials which have been conducted to date, have had limited success. Out of the 15 trials described only 6 achieved significant reductions in rates of self-harm or proxy measures such as depression and hopelessness. Models which have demonstrated the most promising results include Dialectical Behaviour Therapy (DBT), Problem-solving skills training and Psychodynamic Interpersonal Therapy (PIT). However, all of the studies had a number of methodological problems. Most of the trials were underpowered with sample sizes which were too small to achieve statistical significance; sample populations were very limited focussing mainly on hospital presentations for self-harm; nearly all studies only included patients presenting for self-poisoning; all but one study used 'treatment as usual' as a control measure, but these conditions were not adequately described and not standardised; drop out and attrition rates at follow-up were high in most studies; and finally most studies had extensive exclusion criteria, severely limiting the generalisability of the results.

There are high rates of self-harm and suicide in prisons linked to increased risk factors such as mental illness (Singleton et al, 1998), drug dependences (Maden, 1996), and high levels of history of violence, rape and childhood abuse (Corston, 2007). Other factors include separation from children and family support which may increase anxiety, guilt and feelings of hopelessness. Risk is increased by the combination of these imported factors and exacerbated by distress caused by the prison environment itself. Due to these risk factors, the

rates of self-harm and suicide are particularly high in women prisoners and it appears to be increasing (Corston, 2007). The research shows that self-harm and suicide are important issues, particularly in the prison system and particularly for women prisoners therefore, the need to develop and test suitable interventions with this population is imperative.

The government has produced a number of reports highlighting the need for suicide prevention (DH, 1999; DH 2002a; HMPS/NHS Executive, 1999). Specific groups are identified as high risk: prisoners, history of self-harm (DH, 2002a). Although measures have been introduced in prisons to improve monitoring and support for prisoners who self-harm (ACCT documentation), interventions have been introduced to the majority of women's prisons. In fact only four out of the 14 women's prisons in the UK have implemented interventions for self-harm (MoJ, 2009). However, there have been no published results demonstrating effectiveness of these interventions.

There is a clear conflict between custody and care in prisons (Liebling, 1992). This occurs at both an operational level *id est* how healthcare and interventions are administered, and an individual level *id est* how prison staff perceive their roles and their attitudes towards self-harm. Officers currently monitor and manage self-harm through the ACCT system. They also have the most frequent contact with individual prisoners, forming bonds which allow them to recognise changes in an individual's behaviour and mood. It has also been reported that staff struggle to understand self-harm and feel ill equipped to deal with this behaviour (Howards League, 2001). Providing officers with intensive training in both the causes and functions of self-harm and giving them the skills to help prisoners in times of crisis would therefore be invaluable for both officers and prisoners. Limited healthcare resources show that it would be difficult to provide an intervention for all women who self-harm in prison. However, the large number of prison officers and their level of access to prisoners means that they should have a greater opportunity to deliver an intervention.

Previous research in prisons suggests that there are a number of unique barriers to delivering interventions in a prison environment. Security and the prison regime are the main priorities in prisons. As a result, the inflexible regime means that time to deliver therapy sessions is limited to just a couple of hours in the morning and a couple of hours in the afternoon. It is

also possible that security priorities will interfere with the regular delivery of sessions. Sentence lengths are particularly short for women prisoners and there is a lot of movement between prisons, therefore treatment of individuals must be brief. Prisons often have very limited resources both in regards to rooms and staff time. Existing preconceptions about prisoners who self-harm and a lack of education on the functions of self-harm may produce barriers.

1.8.3 Applying the research

"The most beneficial and efficient therapeutic programmes use approaches flexible enough to treat multiple behaviour problems presented by the resident and simple enough to be implemented by non-clinically trained staff" (Ivanoff & Schmidt III, 2006 pp. 95). The above quote was used in reference to DBT programmes in prisons but could also be easily applied to Psychodynamic Interpersonal Therapy (PIT).

Psychodynamic Interpersonal Therapy showed significant results in reducing acts of self-harm but has only been trialled in the community. One explanation for the positive results in both of the PIT therapy studies is that all participants in the therapy groups were actively contacted after missed sessions, meaning that the attrition rate was much lower than in other studies. Many of the trials reported high rates of attrition in the therapy groups which supports the view that self-harmers are a very difficult group to engage. Attendance to therapy sessions was also higher in the study by Guthrie et al (2001), this may be due to the relatively short duration of the treatment. Long-term or intensive interventions are generally not well accepted by patients who self-harm (Allard et al, 1992). Therefore, a brief intervention which actively promotes attendance and follows up individuals who miss sessions should help to reduce attrition rates.

Previous research has focussed on community samples, mainly people who have self-poisoned and presented to hospitals. Limiting the research in this way means that the results are only applicable to very specific populations (i.e. self-poisoners presenting at A&E departments) and therefore further research is needed to look at the effects of interventions

on other high-risk populations. Also as previously shown people who self-cut as a method of self-harm are more likely to repeat than those who use other methods (Kapur et al, 2006). It is therefore important to try and find interventions that are appropriate for these individuals. Apart from limiting the sample populations by type of self-harm and attendance to hospital A&E departments, many studies also limited samples with further exclusion criteria. The exclusion criteria that have been used in past trials (for example: anyone without a registered GP, no fixed abode, severe mental or physical health problems, high risk of suicide and those with known drug or alcohol problems), are likely to be over-represented in women prisoners and therefore many people would have to be excluded. The aim is to produce an intervention which is effective with this specific population, therefore it needs to be inclusive rather than exclusive. For this reason, unlike many previous studies the sample in this study will have minimum exclusion criteria.

Limited healthcare resources show that prison health care services may experience difficulty in providing interventions for all women who self-harm in prison. However, the large number of prison officers and their level of access to prisoners means that they should have a greater opportunity to deliver an intervention. It has also been reported that staff struggle to understand self-harm and feel ill-equipped to deal with this behaviour. Providing officers with intensive training in both the causes and functions of self-harm and giving them the skills to help prisoners in times of crisis would therefore be invaluable for both officers and prisoners.

1.9 Aims and Objectives

1.9.1 Aims

Interpersonal difficulties have been cited as one of the main reasons for self-harm episodes (Lorensini & Bates, 2002; Fieldsend & Lowenstein, 1981) and previous interventions that have focused on this approach have had some success in demonstrating efficacy and in reducing acts of self-harm and reducing suicide ideation. Although other interventions were being used in some women's prisons, no evidence of efficacy, suitability or feasibility had

been presented. We have chosen to use an intervention which has shown effectiveness in the community although it has not been used before in a prison environment. The intervention used in this study was based on the brief psychodynamic interpersonal therapy used by Guthrie and colleagues (2001) in a community population of self-poisoners. As it has not been used with this specific population, the results from the qualitative interviews will be used to tailor the intervention to women prisoners and aid its implementation in the prison.

The main research questions for this study are:

1, What are the perceived needs of women self-harmers in prison in relation to an intervention for self-harm?

2, Can a self-harm intervention be successfully implemented in a prison environment by prison staff?

1.9.2 Objectives

The objectives of this study are:

1. To explore 'users' views of how one local prison currently manages self-harm and how they think an intervention would work in a prison.

2. To adapt an existing community intervention for use with women who self-harm in prison.

3. To determine the ability of non-clinical prison staff to deliver a psychotherapeutic intervention.

4. To assess the feasibility and acceptability of implementing the intervention in a local prison.

Pilot randomised controlled trials are normally used to test hypotheses which have already been formulated (Matthews, 2006). This study is primarily a feasibility study which fits into an evaluative framework and therefore, it is not appropriate to formulate hypotheses at this

stage. The therapy model has shown efficacy in the community but before efficacy can be measured in this population we need to determine whether it can be effectively introduced into a prison environment. There needs to be evidence that it is viable to introduce this therapy into the prison system as efficacy of the therapy model would not be enough to ensure effectiveness in a prison population. The results of this pilot study could potentially be useful to inform the design for a larger multi-site trial. If the results suggest that it would be worthwhile, a larger study would be necessary to measure any long term effects of the therapy and its impact on self-harm and suicide rates.

CHAPTER 2 – METHODS

In this chapter the methods used in this study will be described. The first section provides background details to the study, the second section will then explain the rationale for the methods used in the current study. The final section will go on to describe in detail the different methods in each of the study phases.

2.1 Project specifics

2.1.1 Funding

"Piloting the development of a tailored intervention for women who self-harm in prison", was funded by the National Health Service, National Research and Development Programme on Forensic Mental Health (WORSHIP study – Women Offenders Repeated Self-Harm Intervention Pilot).

2.1.2 Ethics and research governance

Approval was sought from The University of Manchester as sponsor of the research. Ethical agreement was obtained from Ealing and West London Mental Health Trust Ethics Committee (06/Q0410/32) and Bolton, Salford and Trafford Mental Health NHS Trust (BSTMHT 461).

2.1.3 Site

The research was conducted at a women's local prison in Northwest England. As it is a local prison, women prisoners are remanded there until conviction and sentencing. If prisoners receive a short sentence they may remain at that prison, if they are given longer sentences they will generally be transferred to another establishment. The prison therefore houses both sentenced and remand prisoners and has an operational capacity of 459 women. The population consists mainly of adult women but also takes some young offenders (aged 17-21 years). Women were housed in a number of areas, including Waite Wing for remand prisoners and those on a basic regime. The remaining accommodation consisted of a number of Victorian detached houses (the site was originally an orphanage, built in the 1890's) which hold around 20 prisoners each. There was also a First Night centre where new arrivals were

housed for 48 hours before they were moved onto Waite Wing, a mother and baby unit and a house for young offenders. There was also a special care unit which consisted of 20 cells, 10 of which were used for women on disciplinary orders and 10 for women with complex needs such as mental health problems and prolific self-harming behaviour. There were no in-patient healthcare facilities and no segregation unit in the prison.

2.2 Research approach

2.2.1 The Paradigm debate

There have been ongoing debates as to the superiority of two different social science paradigms or models for many years. The difference in quantitative and qualitative paradigms centres on the epistemological, ontological and methodological approaches of the methods. Quantitative research comes from an empirical tradition which emphasises observation and quantification, where as qualitative research argues that it is not possible to quantify all of human experience or the meaning which individuals attribute to their lives. The Positivist/Empiricist paradigm considers quantitative methods to be the only reliable source of collecting accurate research data. Views of qualitative research methods are that it is: subjective, unrepresentative, lacks rigor, is not systematic and that it is biased. The Constructivist/Phenomenological paradigm states that the strength of qualitative research lies in its validity or its closeness to the truth, which "should touch the core of what is going on rather than just skimming the surface" (Greenhalgh, 2006:pp 168). A criticism of purely quantitative research is that it uses a set of *ad hoc* procedures to define, count and analyse variables (Silverman, 1997). These two paradigms were for many years considered fundamentally incompatible and that researchers must work within either one discipline or the other.

The paradigm 'wars' are generally considered to be over, superseded by the pragmatist view that considers qualitative and quantitative methods to be compatible with each other in social sciences. Many have since adopted the tenets of paradigm relativism: that the methodological approach should be led by the particular research problem being studied (Howe, 1988;

Brewer & Hunter, 1989). Mixed methods, the combining of quantitative and qualitative methods, can be an effective way of fully exploring a subject, as each contributes to our knowledge in a different way. This relationship has been described by McKinlay as "mutually enriching partners in a common enterprise" (McKinlay, 1993, pp 113), suggesting that the use of both methods to explore an area will increase our overall knowledge and understanding.

2.2.2 Mixed methods

Tashakkori & Teddlie (2003) explained that mixed method design is the term applied "when research strategies are used that are *not normally* described as a part of that design" (pp 192). The purposes of the supplemental strategies are to increase the scope and comprehensiveness of the study aiding in the interpretation of data in the core project. It can also be useful in supporting the results or providing explanations for unexpected findings (Tashakkori & Teddlie, 2003). Mixed method studies have strengths as well as weaknesses. One major strength is that mixed methods allow research to develop as comprehensively and completely as possible, as inquiry is not as restricted by method. However, this strength may also be seen as a weakness because the supplementary data are often not as completely saturated or as in-depth as they would be if they were used as a single method (Tashakkori & Teddlie, 2003).

Berg (2001), states that it is not appropriate to use positivist experimental techniques to explore the emotions, motivations, empathy, symbols and their meanings associated with the lives of individuals or groups. He also suggests that these elements incorporate the behaviour of the individuals, their experience and the circumstances and conditions that influence them. The aim of qualitative research is to explore the 'what' 'how' or 'why' of the phenomena being researched. Hammersley (1992) states that obtaining the most complete answer to the research questions relies upon delving into participants' experiences, exploring the personal significance of events and interpreting the meaning of what has occurred. In comparison quantitative experimental techniques allow us to explore the effects or impact of something (such as a new treatment) on given variables. Clinical trials are the most direct way of assessing both the feasibility and the outcomes of a new treatment on a population. The use

of pragmatic trials, may also allow us to identify the consequences of the treatment in 'real-life' situations (Jadad, 1998).

In order to address the objectives of this study, both qualitative and quantitative methods were necessary. Qualitative methods were used to explore views on self-harm and its management within the prison, to explore perceived need for an intervention and to inform how an existing therapy might need to be adapted to a prison environment. As it was necessary to run a small pilot trial to assess the feasibility of delivering the intervention, quantitative methods were needed to provide information on how many took part in the intervention, how many sessions they received, numbers and reasons for dropping out of the study and also to measure outcomes such as the effect on self-harm rates. However, quantitative data does not provide any details about the personal experiences of the women prisoners or the therapists involved in the study. To get the most complete answers to the research questions around feasibility and acceptability, we needed to understand prisoner and therapist experiences, exploring personal significance of the events that they took part in. Therefore, further interviews were conducted to explore the acceptability and feasibility of the intervention after it had been piloted.

2.2.3 Qualitative research methods

2.2.3.1 Thematic analysis

Thematic analysis has been described as a tool for analysis which can be used across qualitative methods (Boyatzis, 1998). This view was furthered by Ryan and Bernard (2000) who described it as a process of analysis used *within* major analytic traditions but that it was not an approach in its own right. Contrary to this view, other authors comment that thematic analysis has been undervalued as a method of qualitative research and that it should be considered a method in its own right (Braun & Clarke, 2006). Braun and Clarke define thematic analysis as "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006 pp.79). The authors further state that the use of thematic analysis means that the researcher does not need to subscribe to the theoretical commitments of a specific theory.

Although this method is widely used in qualitative research there is no clear agreement about what it is or how it is done, but that it is a flexible and effective method of analysis as long as the method employed to identify themes is transparent. Thematic analysis can be conducted as an essentialist or realist method in which experiences, meanings and reality from the perspective of the participants can be explored; or it can be a constructionist method which examines the way in which events, realities, meanings and experiences are the effect of a range of discourses operating within society (Braun & Clarke, 2006). Themes can be identified within the data in one of two ways: in an inductive or deductive (theoretical) way. Inductive analysis is a process of coding the data without trying to fit it into a pre-existing coding frame and therefore themes may bear little relation to the questions asked. In contrast theoretical analysis is driven by the researcher's analytic interests, using a pre-existing coding frame to map the data. Themes may be identified in the explicit or surface meanings of the data without further exploration of underlying ideas, assumptions or conceptualisations (Braun & Clarke, 2006). If interviews are being used as the method of data collection the themes may relate to specific questions asked of the participants. As the aim of this study was to extract data on specified topics (for example, perceived causes and functions of self-harm, attitudes towards prisoners who self-harm et cetera) a pre-existing coding frame was used according to the key topics that formed the semi-structured interviews (appendices 1a-1d).

2.2.3.2 Interviews

Interviewing is probably the most commonly used qualitative method and has been described as the 'gold standard' of qualitative research (Silverman, 2000). Its strength lies in its ability to explore issues that are difficult to access by other methods. The use of interviews is based on the belief that the social world can be understood by talking to people and constructing knowledge by interpreting what they say (Mason, 2002). However, it has been suggested that because interviews record what people say rather than what they might actually think, it may undermine the value of the information gathered (Green & Thorogood, 2004). Data produced from interviews are described as social constructs created by the self-presentation of the respondent and interactional cues given off by the interviewer (Dingwall, 1997). Interviews are affected by the identity (age, gender, ethnic origin) of the interviewer. This is due to the

perceptions of the interviewee of the interviewer and how they then interact and if a rapport develops or not. This may also be reliant on the topic being discussed, so sensitive or personal issues are most likely to be affected by this bias. As a result, interviewees may provide answers which they feel the interviewer expects from them or what they think the interviewer would want to hear. The part played by the interviewer on the research process, known as reflexivity, needs to be considered. May (2002) comments that a successful interview depends on the complex interplay of social and interpersonal skills, and on the interviewer's ability to demonstrate a range of emotional and analytic skills such as sympathy, support and intense concentration.

Interviews are the most direct way of gaining information on people's thoughts, feelings and experiences. The degree to which the interviews are structured will affect the type and amount of data one is likely to get. Unstructured interviews are long and the direction is led by the interviewee. One of the limitations of this method is that superfluous information is collected compromising the efficiency and power of the analysis (Miles & Huberman, 1994). Also partial questions may be asked that do not fully explore a theme, affecting data collection and saturation. Structured interviews consist of tightly controlled questions, they tend to be brief, allow limited responses from interviewees and are generally analysed quantitatively. Semi-structured interviews balance the need for in-depth information with brevity. They allow the interviewer to focus the participants' responses and direct the line of thought specifically to the research topics. Semi-structured interviews are flexible so that adjustments can be made during or between interviews, furthermore, they allow the interviewee the opportunity to expand ideas and explain their views. Partly structuring the interviews ensures that specific areas of a topic are discussed without too much superfluous information and also aids in analysis as themes are already identified.

If interviews are conducted specifically for the research, analysis should begin with the transcription of the interviews. One of the most efficient ways to achieve this is by transcribing verbal data oneself, recognising it as an interpretive act not just putting spoken sound on paper. Some authors argue that transcription should be seen as a key component of data analysis in qualitative methodology (Bird, 2005). Data can be analysed either in an

inductive or theoretical manner in thematic analysis. Beginning analysis with the first interview allows the researcher to follow-up 'conceptually fruitful' avenues in subsequent interviews. Therefore, data collection is actually dictated by emergent concepts, this is known as 'theoretical sensitivity' and continues until core categories emerge and are 'saturated' (Melia, 1997).

2.2.3.3 Adequacy in qualitative research

Rigor in qualitative research is an important consideration as this is an area that receives most criticism. Rigor cannot be measured according to quantitative methods but there are several suggested ways of evidencing rigor in qualitative research. Unlike quantitative research, it is considered appropriate or even beneficial to take a purposive sample from within a population. This is due to the fact that qualitative studies rarely use large enough samples to reduce sampling error. In natural sciences, unless findings can be replicated they have no validity. However, in social sciences, identical social circumstances cannot be recreated outside of the original research and so validation cannot occur in this way (Bloor, 1997). It is often necessary to purposely select individuals to achieve as wide a range of variation in the respondents as is possible within the limited number of people included in the sample (Hammersley, 1992).

Multiple coding is another method suggested to increase rigor, which is particularly useful with interviews. Having more than one person analyse and code the data for themes reduces perceived subjectivity in the analysis. However, some qualitative researchers contend that this is unnecessary and may even be detrimental to the analysis. Interviews are not neutral tools of data gathering but active interactions between the interviewee and interviewer, producing a negotiated contextually based report (Fontana & Frey, 2005). This process may therefore be corrupted by bringing in other people to analyse and code the data. Within the qualitative paradigm, reality is regarded as being a social construct with both the researcher and the researched as active participants (May, 2002). Therefore, it is not possible to produce objective, value-free research. One must be reflexive and acknowledge that the researcher is indivisible from the research. The researcher's pre-theoretical knowledge and pre-reflexive

assumptions influence the choice of research subject, the methodological approach and the interpretation of the data (Tashakkori & Teddlie, 2003).

2.2.3.4 Qualitative methods-rationale

Before the trial phase, qualitative interviews were conducted with a number of staff and prisoners to explore their experiences of and attitudes towards self-harm in the prison. The interviews were also used to identify potential barriers to the introduction of the intervention. This information was then used to modify the delivery of the therapy and to identify the level of support needed within the prison, to facilitate a trial. Due to the environment, the population and the time scale for the study, interviews were the most appropriate method of data collection. As the interviews served an explicit function and specific topics needed to be covered, the interviews were semi-structured. As an inductive method, thematic analysis was used in the coding of the data according to a pre-existing coding frame and interviews were transcribed by interviewers as part of the analysis. Rigor was ensured in the sampling procedures. As the aim was not to achieve an average sample of the population, but to gain in-depth understanding of the experiences of certain individuals within the population, participants were purposively selected (as supported by Hammersley, 1992). Multiple coding was used in the analysis partly because there were two people doing the interviews but also to help in the coding of themes.

2.2.4 Quantitative research methods

2.2.4.1 Research strategy

Medical research falls into two broad categories: observational, where existing situations are observed and reported on, as in surveys or clinical case studies; and experimental, where something is tested, either a theory or the efficacy of a treatment (Matthews, 2006). Experimental trials can be further split based on what aspect of a treatment is being investigated. Explanatory trials assess whether or not an intervention works or how a known effective intervention works. The benefit of this method is that it produces the 'cleanest' results possible, focussing only on whether a treatment works or not. Pragmatic trials determine not only if an intervention works but also aim to identify all the consequences of

its use under conditions that mimic clinical practice. The benefit of this method is that it gives more complete data on a treatment's effectiveness in an actual clinical population (Jadad, 1998).

2.2.4.2 Random sampling

An experiment conducted with human subjects is known as a trial and it is generally recommended that a randomised controlled design is used (RCT). There are three advantages to using a randomised design: firstly, it removes the potential bias in allocation of participants to a treatment group; secondly, it tends to produce comparable groups, known and unknown prognostic factors are usually fairly evenly balanced between the groups; and thirdly, it guarantees the validity of statistical tests of significance (Friedman et al, 1998).

Random sampling ensures that each individual has an equal probability of being selected from a population. The aim is to ensure that the sample will be representative of that population (Keppel, 1991). This provides external validity which is important if the inferences are to be applicable to other groups. However, bias may still occur in random sampling if participants must also agree to take part. Those participants in a population who volunteer to participate in trials may be very different from those in the same population who refuse. Volunteers tend to be 'lower risk' individuals and are evidently looking for help for the condition in question. They are therefore more likely to attend treatment and to remain in the trial, this is known as volunteer bias (Bland, 2000). Another area of bias which should be considered is that of response bias. The knowledge that she/he is being treated may alter a participant's response to the treatment. "It is desirable that the subjects should not be able to tell which treatment is which. In a study to compare two or more treatments the treatments should be made as similar as possible" (Bland, 2000: pp 18).

2.2.4.3 Randomisation

There are different methods with which random allocation to treatment arms can be achieved. Simple randomisation can be used to assign participants in a completely random manner, often resulting in unequal groups which can easily be adjusted for in large trials (Schulz & Grimes, 2002). However, in small scale trials such as pilot studies it can cause difficulties. A

chance run of allocations to one group over another may cause management issues also if taking place over a large time frame the baseline characteristics of the sample may change (Matts & Lachin, 1988). The main benefit of this method is that it is completely random and therefore least likely to result in selection bias. Permuted-block randomisation aims to overcome the limitations of simple randomisation by enforcing periodic balance into the treatment groups (Matts & Lachin, 1988). The main limitation to this method is that by enforcing balance, the chances of selection bias increase as the investigator may be able to predict subsequent allocations based on previous allocations. Strategies have been devised to try and reduce predictability of assignment in block randomised trials. One is the use of different block sizes (for example 2, 4, 6, 8) or random assignment of block sizes. However, Matts and Lachin (1988) reported that they found no advantage to using random block sizes for reducing predictability. In consideration, each of the methods of randomisation, have advantages and limitations. The choice of which method is used in a particular study is therefore dependent on the type of study. Small-scale trials or pilot studies may need to use permuted-block randomisation to avoid management difficulties and changes in baseline characteristics if a substantial number are allocated to one treatment over the other over an extended period. Large trials are better able to compensate for these factors and therefore simple randomisation should be used to reduce the possibility of selection bias.

2.2.4.4 Blinding

Comparability of outcomes is increased by the use of standardised measures used in other trials. Bias can still occur if the investigator is aware of what treatment the participants have received. In order to avoid this, investigators may be blinded or double-blinded. In single-blind conditions just the investigator is unaware of what treatment individuals have received, in double-blind conditions both the investigator and the participant is unaware. Double-blind trials are often used in drug trials where a placebo can be administered in the same way as the drug however this is less feasible in intervention trials as the treatment is unlikely to be identical between the test and control conditions.

2.2.4.5 Statistical analyses

Data analysis for experiments or trials should usually include descriptive statistics of the population, for example gender, age, and other factors which may affect outcome such as onset and duration of condition, and also comparisons of pre and post-treatment measures. For experimental designs with categorical information (comparison groups) on the independent variable and continuous information on the dependent variable(s) analysis with t-tests or univariate analyses of variance (ANOVA) would normally be used to test statistical significance.

2.2.4.6 Validity

Validity can be threatened by both internal and external factors of the experiment. Internal factors consist of experimental procedures, treatments or experiences of the participants which threaten our ability to draw the correct inferences about the population being used, from the data. These can include: the use of an experimental treatment that the assessor manipulates, procedures used in the experiment and factors involving the participants. External validity threats occur when incorrect inferences are drawn from the sample population and are applied to other populations, settings or past/future situations (Creswell, 2009). Statistical conclusion validity is also an important consideration. This refers to drawing inaccurate inferences from the data due to inadequate statistical power or the violation of statistical assumptions.

2.2.4.7 Power calculations

Often, one of the aims of pilot trials is to guide power calculations for full-scale trials. One of the difficulties of establishing a level of significance in clinical trials is the importance of clinical significance. Clinical significance is defined by clinicians based on whether the effects of an intervention would justify their continued use. No general thresholds have been set as it will vary greatly depending on: the type of study, outcome if left untreated (for example, death), side effects of treatment and population being studied (Simon, 2006). Statisticians are unable to calculate such things and so these decisions must lie with clinicians. The difficulty for statisticians is that the effect sizes they use to perform power calculations are designed to satisfy computational needs (Kraemer et al, 2006). Kraemer and

colleagues (2006), discuss three approaches to power calculations, all of which have limitations. The first strategy is that a convenience sample is set based on the population and whatever power results, is accepted. The second strategy is that statisticians set a power size based on previous RCTs, sometimes without consideration of the specific clinical context. The third strategy is the use of small pilot trials to estimate effect size. The authors argue that this strategy is not appropriate because if the pilot study does not appear to be clinically significant a full RCT may be aborted, if the pilot appears to be clinically significant power calculations are often based on the effect size in that study. It is suggested that there are two possible outcomes from this, 1) the true effect size will be underestimated and a full study may be aborted, 2) true effect size is overestimated, underestimating the required sample size and under powering the study.

2.2.4.8 Quantitative methods- rationale

As we were not using an observational model an experimental trial was used. The aim of the research was to tailor a therapy and assess the feasibility of delivering the intervention in a prison environment, therefore a small-scale pragmatic randomised controlled trial was the most appropriate method. Pragmatic trials determine not only if an intervention works but also aims to identify all the consequences of its use under conditions that mimic clinical practice (Jadad, 1998). Participants were recruited randomly from the population of women prisoners who self-harm, according to the selection criteria. Simple randomisation as a method was rejected because of the small numbers involved in the trial. The chance allocation to one group over the other at the beginning of the trial, may have caused later analysis difficulties. Also as recruitment took place over an extended period (two years) participant characteristics may have changed in that time. Once recruited to the trial participants were allocated to a treatment group by way of permuted-block randomisation, from a computer generated list. Allocations were recorded in sealed envelopes and opened after recruitment, by a member of prison staff who was not involved with the trial. That person then informed the therapists or control therapists, which participants they were to see, allowing myself to remain blind to treatment allocation. Double-blinding was not feasible because the content of the sessions was necessarily different: the treatment was a talking

based therapy whereas the control was an activity and so participants would be aware of which group they were in.

The results of the pilot trial were not used to inform a power calculation for a full trial as Kraemer and colleagues (2006) urge caution in this. There is no ideal method which will guarantee both statistically and clinically significant results in a study. Review committees often judge significance by how feasible and reasonable a proposed sample size is, given a specific research question. True effect size is unknown at the time an RCT is being planned, effect sizes published in previous studies may be useful in setting thresholds or in defending a suggested sample size as clinically reasonable.

2.2.5 Overview of study phases

The study was conducted in four phases as shown in the diagram below. The methods used in each of these phases are described in detail in section 2.3 below.

Figure 2 – Process diagram
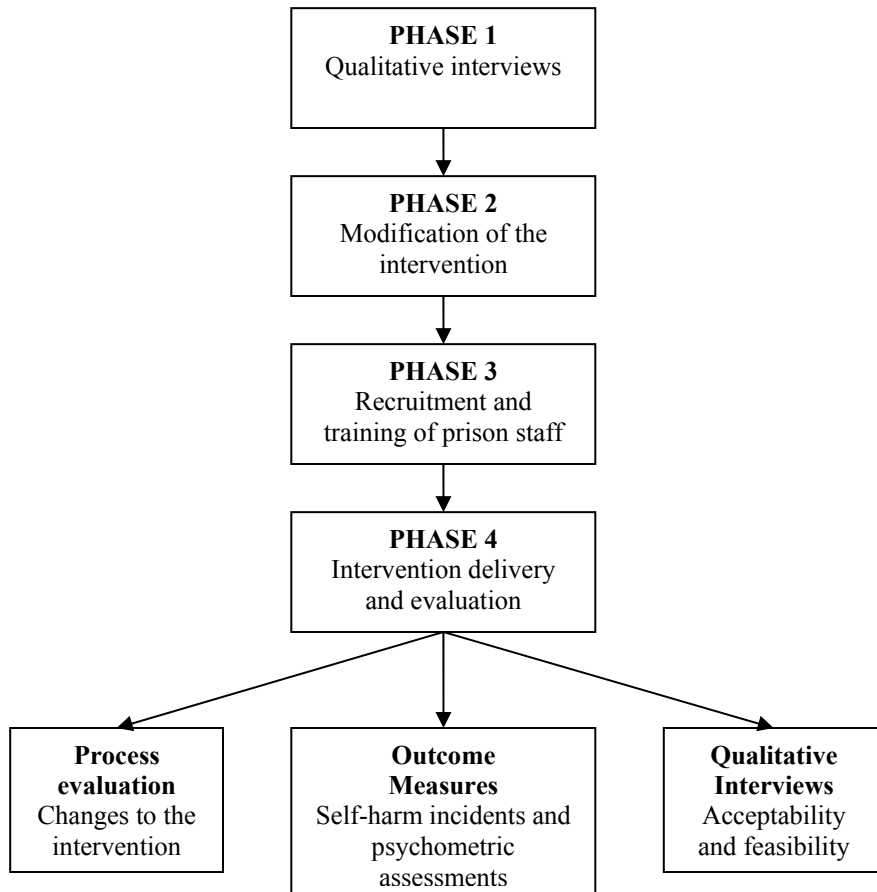
2.3 Phase 1: Qualitative methods

2.3.1 Introducing the research.

Before interviewing began in the prison, the research study was introduced to relevant staff groups by way of presentations. The study was first presented at a Safer Prisons group meeting which consisted of staff from Psychology, Healthcare and the Safer Custody team who are responsible for monitoring and addressing levels of self-harm in the prison. Several voluntary organisations also attend this meeting including: the Samaritans, the Independent Monitoring Board and the Salvation Army chaplain. The research was presented during one of the monthly meetings and attendees were given the opportunity to ask any questions and give feedback. The research was then presented to the Wing staff, the staff on the special care unit, the In-Reach (mental health) team and to the nursing staff on the wing. The research was discussed individually with prison staff on the Houses. The aim of presenting the research to as many members of prison staff as possible was to increase the profile of the study in the prison. By ensuring key members of staff were aware of the study it was hoped that it would help facilitation of the research.

2.3.2 Interview Schedules

The interview schedules (Appendices 1a-1d) were designed to address the aims of the study and to answer the main research questions. The semi-structured interviews used open-ended questions to explore the attitudes and perspectives of women prisoners who self-harm, prison staff attitudes towards self-harm and its management in the prison and also prison Governor views on the impact of self-harm on prison management. The interview schedules were constructed in discussion with another Research Assistant and under the supervision of the qualitative research advisor. Separate interview schedules were designed for the interviews with prisoners who self-harm, the discipline staff, healthcare staff and prison management staff.

2.3.2.1 Prisoner interviews

The focus of the interviews with the women prisoners who had self-harmed, was on their perceptions of the current levels of support for self-harm in the prison. Perceived reasons for their self-harming behaviour and contributing factors were also explored. Experiences of existing support services in the prison, how they thought they might be improved and any suggestions for other interventions or activities that they thought would help them were discussed. Relationships with members of prison staff and opinions on who they thought should deliver the intervention were sought (Appendix 1a).

2.3.2.2 Discipline Staff interviews

The focus of the prison officer interviews was on practical issues such as how they thought existing self-harm support services ran within the prison and what potential barriers they thought a new intervention may face. The interviews also explored staff attitudes towards self-harm and those who self-harm, and their perceived role in the prison system, including training and support (Appendix 1b).

2.3.2.3 Healthcare Staff interviews

As with the Discipline Staff interviews the focus was on attitudes towards existing services. However, the interviews also explored health worker's experiences of delivering other interventions or treatment within the prison system and what difficulties have been encountered in the past (Appendix 1c).

2.3.2.4 Management interviews

Two Governors from the prison were also interviewed to attain their views on the current support services for women prisoners who self-harm. They were also asked about resources and what they would like to see in place for the women prisoners who self-harm and the support this intervention would receive at management level (Appendix 1d).

2.3.3 Participant recruitment

2.3.3.1 Women Prisoners who self-harm

Identification of women prisoners who self-harmed was achieved through the prison service's ACCT system (Assessment, Care in Custody and Teamwork). Women prisoners were monitored as part of the ACCT system if they were thought to be at risk of self-harm or suicide. All incidences of self-harm by an individual are recorded in this document along with an action plan and regular reviews as to how the prisoner is feeling and how they are best managed. The main criterion for inclusion in to the study was that an individual had committed an act of self-harm within the previous two weeks.

To identify possible participants, the ACCT documents in the prison were checked fortnightly and the individuals who fitted the criteria were identified. There were generally between 30-50 ACCT documents open at any one time, but of these usually only 4 or 5 women prisoners met our criteria. This is due to the fact that it is a document of *risk* of self-harm and suicide and therefore not all prisoners on the ACCT have actually self-harmed or attempted suicide. Before any of the women prisoners were approached, senior staff on the relevant residential unit, were asked if there were any reasons why that person should not be approached at that time. In total three women were excluded from the sample: 1) one woman had recently experienced the death of a child and was considered too distraught to take part, 2) another woman was undergoing intensive therapy and it was thought that it would be inappropriate to also take part in this study, and 3) another woman was considered high-risk of violence and therefore could not be seen on a one-to-one basis. Two further women declined to take part in the study.

A purposive sample was selected to ensure interviews were conducted with as wide a range of prisoners and staff as possible within the time constraints. This method of sampling is common in qualitative studies (Hammersley, 1992). The prison is divided into a purpose built prison Wing, a special care unit and approximately 10 Houses, and women are placed in these different residential units according to set criteria such as age, level of risk to others, level of risk to self, or whether they are on an enhanced regime. The sample of women

prisoners needed to be inclusive of these criteria and so at least one participant from each of these residential units was recruited. In order to achieve this we went to each of the key locations in the prison and asked how many women prisoners they currently had on ACCT documents. The files were searched by hand to determine last incident of self-harm and if within 2 weeks they were approached and asked if they were interested in taking part. Women were selected consecutively as they met the criteria and according to where they were housed in the prison. Although 20 prisoner interviews had been planned, thematic saturation was reached after 15 interviews. A summary of the demographic information from the prisoner sample can be found in Chapter 3, Table 7.

2.3.3.2 Staff

A purposive sample of prison staff were also selected. The aim was to achieve as wide a range of interviews with staff across the prison as possible, within the time constraints. A sample of eight members of discipline staff from a range of grades, years in service and area of work (as described in the residential units above) was taken. Age and gender were also considered to ensure a range of staff views were taken. Healthcare staff in the prison included: the In-Reach mental health team, mental health nurses (RMNs), general nurses, doctors and the Resource Centre staff who deliver mental health care. Five members of staff were selected and interviewed from a range of disciplines, time in service in the prison, and gender. The managers were selected to include a senior member of the staff and a manager who had a direct working relationship with the women prisoners who self-harmed. As the numbers in each group were so small, interview participants were identified by going to the relevant units and discussing with the staff there who would be a good candidate for interview. In some cases, staff were nominated by their team/line managers. A summary of the demographic information from the staff sample can be found in Chapter 3, Table 8.

2.3.4 Consent procedure

Once identified, all participants were approached and asked if they would be willing to consider taking part in the study. They were then given an information sheet (Appendix 2a) which describes the study, what their participation would involve and how the information

gathered would be used. All of the information was worded in plain language to make it easy to understand. The information sheets were given to the women prisoners and one of the research assistants sat with the individual and went through the sheet in detail explaining the contents to ensure that the information was understood. All participants were then asked if they had any questions. They were then asked if they would be willing to take part in an interview and a provisional date arranged to come back and see them.

The information sheet was then left with the participant for a period of no less than 24 hours, when they were again asked if they had any further questions and if they were still willing to take part in an interview. Written consent (Appendix 2b) was then obtained and the interview conducted.

2.3.5 Interviews

In total, 30 interviews were completed and transcribed. Ten interviews were completed by the author and 20 interviews by another research assistant.

The interviews were always pre-arranged and conducted in a private area. All interviews were recorded with the participants consent and lasted between 30 and 90 minutes. The interviews were semi-structured to ensure that all significant areas were covered and interviewees were also asked if they thought there was anything that had not been covered, or if there was anything else that they wished to discuss in relation to self-harm.

At the beginning of the interviews, after consent had been taken, all participants were asked to complete a demographic questionnaire. Prisoner questionnaires asked details of: age, race, time in custody (past and present), self-harm history and history of traumatic events in order to ensure that a diverse sample was taken. (Appendix 2c).The staff questionnaire asked details of age, gender, race, grade and time in service, again this was to ensure that the sample was diverse (Appendix 2d).

2.3.6 Analysis

Initially, the interview schedules were piloted on both prisoners and prison staff. Both researchers completed one prisoner and one staff interview, which were then transcribed verbatim by the interviewer. It was agreed that transcribing should be done by the interviewer as part of the data analysis, which is a process supported by other qualitative researchers (Braun and Clarke, 2006). After completion and transcription of the two staff and two prisoner interviews, they were sent to the four members of staff involved in the analysis, to be individually coded.

The transcripts were read and discussed by researchers from different professional backgrounds (primary care, psychology, psychiatry). Thematic analysis proceeded in parallel with the interviews and was inductive (Strauss & Corbin, 1998). Thematic categories were identified in initial interviews which were then tested or explored in subsequent interviews where disconfirmatory evidence was sought (Braun & Clarke, 2006). Initial notes were made as to the themes that each person identified from the interviews, these emerging themes were then discussed in analysis meetings. Themes were explored and any differences in perceived themes or in the interpretation of interviewee's comments were discussed in these sessions. Any unusual or interesting themes were noted and the interview schedules were then revised for the next set of interviews, to expand on these themes further. This process was repeated usually every third interview, until no further themes were emerging or thematic saturation was reached.

2.4 Phase 2: Modification of the intervention

One of the aims of the qualitative interviews conducted in Phase 1 was to identify if there would be any barriers to delivering the intervention in its original form. It was thought by the research team that feedback from health care staff already delivering interventions in the prison would be of particular relevance. During the first phase, the researchers also gained experience of working within the restrictions of the prison regime and gained knowledge which could be used to refine the delivery of the intervention. This information was

discussed by the study Steering committee where decisions were made as to changes to the original design of the study. Any decisions about changing the format of the Psychodynamic Interpersonal Therapy were made by a member of the team who is an expert in this therapy and was also involved in the delivery of the training and the supervision of therapists in the study.

2.5 Phase 3: Recruitment and training of prison staff.

2.5.1 Recruitment

2.5.1.1 First recruitment
It was decided by the research team that we would need between 3 to 4 therapists and an equal number of control staff.

The therapist roles were advertised in the prison. This was done via an email sent from the Governor to all members of prison staff. The advertisement included a summary of the project, and a person specification (Appendix 3). The specification was kept purposefully generic to encourage a wide range of staff to apply for the posts. Staff who were interested, were asked to complete a short form detailing: name, date of birth, position, contact details and some information about why they wanted to take part in the trial and any previous experience they had in mental health or with interventions.

In total, nine applications were received: two discipline staff, one administrative staff member and six intervention based staff. Six were female and three were male. References were requested from the Line managers of each of the applicants. The applications were reviewed by the Principle Investigator of the study, the therapy supervisor and myself. It was mutually agreed that six of the applicants would be suitable for interview, the other three were excluded based on their applications:

- ➢ 1 was not employed by the prison but came in once a week to deliver therapy sessions- this was not thought to be enough time to arrange and complete sessions.
- ➢ The other 2 were discounted due to information they had put on the application forms.

Emails were sent to each of the participants either offering them an interview or informing them that their application had been rejected.

Interviews were conducted by a panel including: the PI, the therapy supervisor, the prison facilitator and myself. All participants were asked the same questions and responses were discussed immediately after the interview, before the next applicant was seen. Applicants were also asked if they would be willing to be considered for the control intervention if they were not offered the therapy training. All of the participants agreed to this. Of the interviews offered, only four could make the interview due to annual leave, but it was agreed that the other two people would be interviewed by telephone the following week.

A decision was then made as to who should be offered the therapy training and who would be suitable to do the control. Unfortunately, two of the people who were offered the therapy training were unable to do the training dates (which were fixed as it was run by an external agency) so the therapy training was offered to two other candidates. The candidates were informed by telephone as to whether they would be doing the therapy training or the control. In total, three applicants were trained in the PIT therapy and two for the control sessions.

2.5.1.2 Second recruitment

Due to unforeseen circumstances two of the therapists and one control therapist dropped out of the study (one due to maternity leave and the other a career move to another prison, one due to health reasons and not being on active duty in the prison). These losses happened just three months into the trial. Due to these losses it was decided to re-recruit staff for the therapist and control staff roles. The same procedure as above was followed with advertisement of the roles. In total six applications were received back: four discipline staff and two intervention based staff. All applicants were female. The applications were reviewed by the Principle Investigator, the therapy supervisor and myself. It was mutually agreed that four of the applicants would be suitable for interview, the other two were excluded based on their applications. Emails were sent to each of the participants either offering them an interview or informing them that their application had been rejected. Interviews followed the same procedure as in the first recruitment. Therapy training was offered to two of the

applicants and control training was offered to a third, the fourth person was rejected as unsuitable for either role.

2.5.1.3 Third recruitment

Further losses to the original prison staff recruited to the roles led to the need for a third recruitment drive. Staff losses were due to: maternity leave, a career move to another prison, and one person was removed from the project by their line manager due to other work commitments. This time as well as circulating an advertisement for the roles, prison management staff were consulted and a process of hand selecting prison staff for known qualities was discussed. There were no replies to the advertisement put out by the prison, so all of the staff were hand-picked by one of the prison Governors. A list of possible candidates was produced consisting of staff who were motivated to work with women with high levels of need and who were thought to be concerned about reducing self-harm. In total six names were suggested. I then approached each of the suggested members of staff to see if they would be interested in taking part in the trial. Due to the proximity of the training, staff were selected if they were motivated and available for training on the specified dates. Three candidates fitted these criteria and were therefore recruited and trained in the therapy.

2.5.2 Training

Each of the members of prison staff who were selected to deliver the therapy attended a 5 day intensive training workshop. This is an independently run course and is not tailored for use in the prison. The training was generic. However, there was a module added to the training, which focussed on self-harm. The training included: an overview of the model, guidance on adherence to the model, examples of the model in practice, role playing to practice use of the model and discussion groups. The therapy staff were given copies of the original PIT manual and also the manual as adapted by Professor Guthrie for use with self-harm patients (as used in the community based trial, Guthrie et al, 2002). At the end of this training they were given further training by myself and the therapy supervisor, for using the model in a prison setting and detailing the processes they had to adhere to as part of the trial. This included work sheets to help the therapists structure the sessions to some degree (use of the sheets was

optional). There was also a session summary sheet to be completed and taken to supervision each week. A focus was also placed on concluding each therapy session with the possibility in mind that it may be the last session due to transfer, release or refusal to participate. Staff were also given detailed explanations of the project, its aims and what was required of them. Staff were advised to follow existing risk protocols in the prison and to report any adverse incidents. If they were concerned about an individual either as a risk to themselves or others, these should be reported immediately to line managers and follow normal prison protocols.

The staff selected to deliver the control sessions received one day of training at the university. The training was given by myself and the Principle Investigator. During the training, staff were given a background to the study and its aims, also their role and the content of the control sessions were discussed. Activities which could be used in the control sessions were detailed with emphasis placed on the fact that no therapy, including Active Listening was to take place in those sessions. As above, prison risk protocols and reporting procedures were to be followed as usual.

2.5.3 Supervision

Prison staff trained in the therapy, were offered weekly supervision with a clinical supervisor. The supervision consisted of group sessions with a maximum of three people. Sessions lasted for one hour and were held at the prison to facilitate prison staff attendance. The sessions provided support and further training in the use of the model and helped to ensure that the therapy model was adhered to. As well as clinical supervision, regular meetings were held with the project manager on a one-to-one basis. The aim of these meetings was to ensure therapy sessions were being delivered, to try to address any problems the prison staff were experiencing and to intervene on their behalf with prison managers.

2.6 Phase 4 - Quantitative methods

Recruitment and allocation of participants to treatment groups, involved several stages. These stages will be described further in the sections below.

Figure 3 - Process map for Phase 4

```
┌─────────────────────────┐
│     Identification       │
│     Through ACCT         │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│     Recruitment          │
│   1st consent – to       │
│     access records       │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│      Screening           │
│  for eligibility and     │
│      suitability         │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│       Consent            │
│   2nd consent – to       │
│   participate in trial   │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│    Permuted-block        │
│     randomisation        │
└─────────────────────────┘
          /        \
         /          \
┌──────────────────┐  ┌──────────────────┐
│ Treatment Group  │  │  Control Group   │
│ 32 participants. │  │ 32 participants. │
│ Receive up to 4  │  │ Receive up to 4  │
│ sessions of      │  │ sessions of      │
│ individual PIT   │  │ individual non-  │
│ therapy          │  │ therapeutic      │
│                  │  │ intervention     │
└──────────────────┘  └──────────────────┘
```

2.6.1 Identification and screening of participants

2.6.1.1 Selection

The methods used in recruitment of participants are very important in quantitative research. As it is unlikely that an entire population will take part in a trial, rigorous sampling methods must be used to ensure that the results can be applied to the rest of that population.

As in the phase 1 interviews, women prisoners were identified through the ACCT system (Assessment, Care in Custody and Teamwork). An ACCT document is opened on a prisoner who is thought to be at risk of self-harm or suicide. However, not all individuals have actually committed an act of self-harm. The sample included only those prisoners who had committed an act of self-harm within the last two weeks. This time frame was selected to identify women prisoners who were in current crisis. The number of women prisoners fitting this criterion was relatively small so after consultation with the steering group, the time period was expanded to self-harm within 1 month, to increase recruitment rates. Acts of self-harm included both self-injury and self-poisoning, to be more inclusive and therefore prevent limiting the sample to just one specific type of self-harm. Once identified, possible participants were approached and the project explained to them orally, they were also given an information sheet. Consent was then sought to access their prison and medical records.

2.6.1.2 Screening

As described in Chapter 1, many past self-harm RCTs have used multiple exclusion criteria making the groups homogeneous but not truly representative of a normal clinical sample. Therefore, the exclusion criteria in this study were kept to a minimum to keep the sample representative of the overall population. Exclusion criteria used in past studies, such as drug or alcohol problems or any history of mental illness, would be over-represented in a female prison population. Using these criteria would mean that many participants who needed help with self-harming behaviours would be excluded from the trial, possibly making the sample biased against high-risk cases, as in the study by Guthrie et al (2001). It was necessary to have some exclusion criteria to protect those unable to engage, those who could not complete the short-duration intervention and to protect the staff delivering the intervention.

Participants' records were accessed to screen for date until release or trial if on remand, this had to be a minimum of 6 weeks to allow sufficient time to complete the therapy/control sessions. The Inpatient Medical Records were also checked for any diagnosed mental illnesses or severe learning difficulties which may affect their ability to engage in therapy. Prison records were accessed to ensure participants were not currently considered high risk of violence to others (particularly to staff) which would mean that they are not allowed to have one-to-one sessions without an officer present. As well as protecting therapy staff, it was felt that having another person present during sessions could impact on the effectiveness of the therapy.

2.6.1.3 Consent procedure

As with the consent process for the qualitative phase of the trial, procedures were in line with ethical considerations. After completion of the screening process the women prisoners consent was again sought, a minimum of 24 hours later, to take part in the trial. All participants were given another information sheet detailing the extent of their involvement in the trial. Participants were reminded that they were free to withdraw from the study at any time and that all information was confidential except if it directly represented a risk to prison security, another individual or if there were serious concerns about their own safety. Permission was sought to tape record all session for monitoring purposes. They were also advised that all information collected would be anonymised and stored in a secure place. Signed consent to take part in the trial was then sought.

2.6.2 Experimental conditions

2.6.2.1 Randomisation
Once recruited to the study, each of the participants were randomised to either the therapy or the control group. Block randomisation with varying block sizes was used to assign participants to their groups. The randomly generated results were placed into sealed envelopes in sequential order. Once a participant was recruited, a third party opened the next envelope in the sequence and informed the designated therapist or member of staff taking the control participants.

Stratifying the randomisation according to the location of the participant in the prison (the Unit where they reside) or by rate of self-harm was considered. It was thought that prolific self-harmers may skew the data if by chance more were randomised to one group than to the other. However, it was advised that this may over-complicate the procedure and that any efficiency gains in such a small sample would be offset by greater logistical problems and resulting small cell values. Rather than considering this in the randomisation process it can be controlled for using multivariate analysis.

A potential problem that was identified, was that the therapists would only be able to deliver the intervention to a small number of participants at a time. Due to the nature of the prison population, the number of people eligible for the study at any one time varied considerably. Also due to short sentence lengths, participants had to be randomised and receiving therapy or control sessions within a short time frame. Therefore participants could not be randomised in advance to attend their designated treatment group when a space became available. Randomising those that were eligible to even enter the trial at 'busy' times was thought to be overly complicated and it was decided that internal validity could be maintained if people were recruited to the study on a 'first come' principle.

In total, 64 women prisoners who self-harm were randomised into the trial. Thirty-two to the therapy and 32 to the control. As this was primarily a feasibility and acceptability study, it was not powered to produce statistically significant results. The sample size was restricted by the funders to 60 participants. However, due to the rate of attrition this was extended slightly to 64.

2.6.2.2 Treatment groups
2.6.2.2.1 The therapy
The psychodynamic-interpersonal therapy (PIT) used in this study is a modified version of the PIT therapy used by Guthrie et al (2001) in their community based intervention trial (see section 1.4.4). The intervention is an adaptation of Hobson's Conversational Model (Hobson, 1985). The model uses the patient-therapist relationship as a tool for resolving interpersonal difficulties which cause or exacerbate psychological distress. The main aim is for the

therapist to seek emotional connection with the patient, from which exploration of psychological issues and change follows. Hobson emphasises the importance of developing a true 'feeling language' in which inner most fears and emotions can be shared. The aim is to get the client back in touch with how they felt at the time of self-harm, not how they feel about it now (after the event). Key techniques include 'staying with feelings' and 'staying in the here and now' helps to bring feelings into the session. Metaphors are used for accessing specific memories or emotions which are context specific. The interpersonal formulation involves finding a connection between feelings, thoughts and relationships. An integral part of the therapy is a 'Goodbye Letter' which helps clients come to terms with the end of the therapy and of the temporary relationship they may have formed with the therapist.

It was thought to be particularly suited to women who self-harm in whom over 70% of presentations are thought to be due to relationship problems (e.g. Bancroft et al 1977). The participants randomised to the therapy group, received up to four sessions of individual therapy with a designated therapist. The sessions were planned to take place weekly and last for 50 minutes. All sessions were audio-taped to ensure fidelity to the intervention (for excerpts from the manual see appendix 4).

2.6.2.2.2 The control
As opposed to many of the past self-harm therapy trials, the control did not consist of treatment as usual but was intended to control for the effects of individual attention/dedicated time from a member of staff. The participants randomised to the control group, received up to four individual sessions with a person not trained in the therapy. As in the therapy arm, the sessions took place weekly and for a period of 50 minutes. The sessions were used to undertake activities such as card games, reading magazines or the discussion of practical issues such as money management. Participants were advised that they could talk about general topics but that they could not discuss personal problems or any current issues that they were experiencing. The staff working with the control participants were advised not to offer emotional support or to use Active Listening. All sessions were audio-taped to ensure that therapy was not received.

Participants in both arms of the trial continued treatment as normal within the prison. Any other interventions or activities that the participants received during the trial period were recorded and it was expected that this would not affect the results of the study. This is based on the fact that there are no specific interventions addressing self-harm in the prison and that participants in both groups are equally as likely to receive other interventions. In order to collect these data, prison records were checked and the women prisoners asked to complete a weekly diary of their interventions and activities during the intervention period.

2.6.2.3 Participant retention

In order to further avoid difficulties experienced in past trials, particularly with regard to retaining participants to treatment, all participants were actively contacted if they failed to attend any scheduled therapy/control sessions. Participants were given the chance to refuse three consecutive sessions before they were considered to have withdrawn their consent to take part in the trial. These participants were then approached by myself as the primary researcher, to see if they would still be willing to complete the exit interview and discuss their reasons for not wishing to continue with the sessions.

Past therapy trials reported low rates of retention to follow-up. It was foreseen that this may be a particular problem in this environment. Many women prisoners serve short sentences and sentenced prisoners are often moved on to other prisons (The prison used was a local remand prison which primarily caters for those on short sentences or those on remand) which indicated there may be difficulties in retaining women prisoners to the trial. In order to try and reduce the risk of participants not being able to complete the sessions and follow-up interviews therapists were asked to see participants as soon as possible after randomisation and allocation. It was also agreed that a four week medical hold could be placed on participants by the prison to try and avoid transfers where possible, until they had completed the intervention.

2.6.3 Outcome measures

The primary outcome measure was rate of self-harm which was recorded pre- and post-treatment. Information was obtained from the official prison documents relating to self-harm

(ACCT and medical records) and also through a weekly diary completed by the participants. As the period of data collection varied for each participant, rates of self-harm for each individual were calculated by dividing the number of self-harm incidents by number of days. Rate of self-harm was chosen as the primary outcome as it had the most complete data set (taken from prison records) and also because the overall aim of the intervention was to reduce self-harm rates.

A range of psychometric measures for self-harm risk factors were also administered before and where possible, after the intervention. These formed the secondary outcome measures. Standardised measures, used in many self-harm intervention trials, were used to ensure comparability of results with other trials. As the other self-harm interventions being used in women's prisons, had not been evaluated yet (section 1.5.6), there were no similar forensic studies to compare the data with. The measures used included: the Beck Suicide Intent Scale (BSIS) (Beck et al., 1979), the Beck Depression Inventory-II (BDI) (Beck et al., 1961), the Beck Hopelessness Scale (BHS) (Beck et al., 1985) and the Inventory for Interpersonal Problems (IIP) (Barkham et al., 1996). These were selected as in other studies (Guthrie et al, 2001) the BSIS, BHS and the BDI have been shown to be strongly correlated with future suicide and self-harm risk. The IIP was selected as the therapy aims to improve interpersonal problem solving skills. Demographic information was also taken to explore baseline risk factors in the sample and to ensure randomisation had worked and that the therapy and control groups were not significantly different.

Participants were again assessed using the above measures in a face-to-face interview after the intervention period had been completed (approximately four to eight weeks later). If for any reason the full four sessions were not received due to disengagement or transfer/release, the measures were still administered if possible, to ensure that the optimum number completed the assessments. As with baseline interviews the questionnaires were administered verbally if the participant had poor literacy skills.

Other measures that were considered included: the Means-Ends Problem Scale (MEPS- Platt & Spivack, 1975) but there were issues around training and the complexity of this tool. Also

the Beck Anxiety Inventory (Beck et al, 1988) and the Barratt Impulsivity scale (Patton et al, 1995) were considered. However, past research shows that these measures are less strongly associated with future self-harm/suicide risk. It was also thought that the use of an extensive battery of test may be counterproductive, reducing participation/follow-up rates.

2.6.4 Data analysis

Descriptive statistics were used to describe the sample and to compare the two treatment groups to ensure that randomisation had been successful and that the groups were comparable. Chi-square and T-tests were used to assess whether there were significant differences between the demographic and risk factors of the therapy and control groups. Poisson regression was used to test for significance in differences in rates of self-harm in participants before and after intervention. Linear regressions were used to analyse the pre- and post-intervention scores for the secondary outcome measures. However, there was a serious limitation to the use of these tests. I was aware that the sample size was inadequate and therefore any results would be underpowered to indicate significance.

As this was primarily a feasibility study the methods employed for both the delivery of the intervention and the data collection procedures were reviewed in light of any difficulties encountered. Alterations were made to the methods as necessary with the changes and the outcomes of those changes being recorded as part of this process.

2.7 Phase 4: Qualitative methods

In order to explore the acceptability of the therapy to the women prisoners, therapists and other stakeholders, further qualitative interviews were conducted. The interviews also explored feasibility from the perspective of the therapists, therapy supervisors and key prison staff.

2.7.1 Interview schedules

2.7.1.1 Therapy completers/non-completers

To obtain information on attitudes towards the therapy (acceptability), nine participants who completed the therapy were interviewed. The interviews covered three main areas: the therapy, relationship with the therapist and practical issues around the sessions (see appendix 5a). As well as interviewing participants who completed the therapy, three participants who dropped out of the therapy before completion were also interviewed. The aim of these interviews was to ascertain reasons for refusing to complete the four therapy sessions and to get a balanced view of the acceptability of the therapy (see appendix 5b).

2.7.1.2 Therapists

Staff who delivered the therapy were also interviewed to explore their views and experiences of delivering the therapy, in particular, how this fitted in with their job roles and ease of accessing participants. At one stage there were three prison officers who had been fully trained in the therapy. However, due to management problems described later (Chapter 5), the officers failed to deliver any sessions over a long period of time. These officers were interviewed to explore the difficulties they were facing (appendix 5c) before trying to further facilitate these duties. Interviews were also conducted with two internal members of staff who managed to complete some therapy sessions and with the four external therapists who were brought in to complete the trial (appendix 5d).

2.7.1.3 Therapist supervisors

The two therapist supervisors were also interviewed to explore their perceptions of how the therapists coped with delivering the therapy in the prison environment. Feasibility and acceptability of the therapy model from their perspective, were also discussed (appendix 5e).

2.7.2 Interviews

With the participants' permission, the interviews were tape recorded and transcribed verbatim. Exceptions to this included one woman prisoner who refused to complete the

therapy but agreed to the follow-up interview if it was not recorded, in this case written notes were taken. Another exception was that a woman prisoner who completed the therapy was transferred to another establishment the day after she completed the four therapy sessions. Permission was sought to interview the participant in the other prison which was granted but authorisation was not given for the recording equipment. Again detailed written notes of the interview were taken.

It was originally intended that the qualitative interviews would be conducted by a separate Research Assistant. However, after completing interviews with: one internal therapist who had completed some therapy sessions; the three prison therapy staff who failed to deliver any sessions; one participant who completed the four therapy sessions and one participant who withdrew consent to take part in the study, the Research Assistant left the study and was not replaced. The remaining interviews with: eight therapy completers; two participants who failed to complete the therapy; one internal and four external therapists and two therapy supervisors were completed by myself. The limitations and bias that may have resulted from this change are discussed in Chapter 6.

2.7.3 Analysis

As in Phase 1, all interviews were transcribed verbatim. The data were analysed using thematic analysis based on a priori themes. The aim of the interviews was to explore the acceptability and feasibility of receiving/delivering the intervention in the prison system. Therefore, key domains were identified including: details about the therapy, the therapeutic relationship/alliance, and practicalities of delivering the therapy in the prison environment including barriers to participation/delivery. The main aim of the prisoner interviews was to assess acceptability of the therapy to the women prisoners, taking into consideration their views on how it might be improved to suit them. The main aim of the therapist, supervisor and stakeholder interviews was to explore the feasibility of delivering this therapy in women's prisons, on a larger scale and how the intervention might need to be modified in any future study.

Once transcribed the process of careful reading began and the decision was made to apply thematic analysis manually (as opposed to the use of computer software such as Atlas ti). Order was imposed on the data by separating the transcriptions of prisoner, therapist and supervisor interviews. Notes were made on the comments of each interviewee by listing a series of headings then a brief synopsis of the participant's views on those subjects were added under sub-headings. Summary sheets were used to compare accounts provided by the different participants, containing a brief outline of views under the prescribed headings in order to identify the most prominent themes that emerged. Similarities and differences were highlighted both within and across each group for comparison. Quotes were then used to illustrate different key themes.

CHAPTER 3 – RESULTS 1: PHASES 1 & 2

These results address the first two objectives of the study:

1. To explore 'users' views of how one local prison currently manages self-harm and how they think an intervention would work in a prison.

2. To adapt an existing community intervention for use with women who self-harm in prison.

The interviews conducted for Phase 1 produced a large body of data. To address the first objective, the interviews were analysed to explore the women prisoners' and prison staff views on self-harm in the prison. The results presented in detail here, focus on the outcomes of the qualitative interviews which relate directly to the modification of the intervention, the second objective of the study.

3.1 Sample description

3.1.1 Prisoner demographic details

Demographic information was taken from each of the women prisoners before the interview. The majority of the sample were white (n=13) with just two participants of mixed race. The mean age was 27 years, ranging from 19 years to 39 years of age. Over seventy percent of the sample had been convicted and sentenced (n=11) but four participants were on remand to the prison. Sentence length ranged from just four months to one prisoner who was serving 25 years. However, the majority of the sample were serving sentences of between one and two years. We also wanted to know how many of the women prisoners had a history of self-harm in the community as opposed to those who had only started to self-harm during their current term of imprisonment. Just four of the women prisoners stated that they had begun to self-harm whilst in the prison with the majority (n=11) reporting a history of self-harm outside of the prison (see table 7).

The sample of women prisoners came from a range of locations across the prison as described in section 2.1.3, in order to represent a range of women prisoners across the prison. The sample of 15 included:

- 5 from the wing
- 3 from the young person's house
- 3 from other houses
- 1 from the first night centre
- 3 from the special care unit

Table 7 - Prisoner demographics:

	Range	*Mean*
Age	19-39 years	27 years
Ethnicity	13 white, 2 mixed race	N/A
Status (sentenced/remand)	11/4	N/A
Sentence length (months)	4-300	57 (median 22)
Previous history of self-harm outside prison	11	N/A
Age of onset of self-harm	7-31 years	17 years

3.1.2 Prison staff demographic details

The prison staff sample included eight prison officers, five health care professionals and two Governors. The samples were combined in the description of the demographic details because the sub-groups were so small and to help protect the anonymity of the interviewees (see table 8). All of the prison staff were white with a mean age was 37 years old. The sample included staff who worked in different roles and at different grades within their group. The longest any member of staff who was interviewed had been employed at the prison was 10 years. One member of staff who had been at the prison for just two months (although they had worked in other establishments previously) was also interviewed .

Table 8 - Prison staff demographics:

	Range	*Mean*
Age (years)	22-53	37
Gender	9 female, 6 male	N/A
Ethnicity	15 white	N/A
Length of service at prison (months)	2-120	39

3.2 Phase 1- Exploring views of self-harm in the prison

(Key: P= prisoner, S= prison officer, HC= healthcare staff)

3.2.1 Self-Harm: Women Prisoner's Perspective

The schedules for interviews with the women prisoners were semi-structured in order to raise key topics. The interview schedules raised questions about perceived causes and functions of self-harm as well as exploring interviewee's emotions immediately before and after incidents of self-harm. Another area that we wished to discuss with the women prisoners were their thoughts on self-harm prevention in the prison, in terms of what they thought might help stop self-harming behaviour and their attitudes towards self-harm interventions. These topics are shown as shaded blue in the table below (Table 9). From these key themes the analysis of the data produced further themes and sub-themes as detailed below (un-shaded). During the analysis of the functions of self-harm the terms automatic and social functions were applied to help in the comparison of these results with the existing literature on functions of self-harm. These terms were not included in the interviews.

Table 9- Themes and sub-themes of women prisoner's views

Causes	Imported	mental health problems
		past abuse, drug/alcohol
		separation from children
	Situational	unpleasant event: bullied/unfair treatment
		being denied something/not listened to
		changes in environment/disempowerment
Function	Intense emotions *(Only automatic functions cited)*	anger, hurt, frustration
		no control
		directed inwards against self
		self-punishment
Emotions	Immediately prior	intense emotion
		build up over time
		act is impulsive
	After self-harm	relief
		regret
Prevention	Stopping self-harm	nothing could prevent it
		diversionary measures
		perceived attitudes of staff
	Attitudes to treatment	therapy as positive
		opportunity to talk to someone
		having someone listen/care
		pointless, nothing will help

Shaded areas show a priori themes

3.2.1.1 Self-Harm History

A minority of the prisoners interviewed (n=4) had only self-harmed whilst in prison. Most of the women (n=11) had a history of self-harm in the community, as well as self-harming whilst in prison. Six women prisoners stated that they started self-harming at a young age:

> *"I was doing it when I got put into the kids home, I was put in the kids homes when I was twelve. I was doing it then, they were always rushing me out to hospital." (P6: 71)*

3.2.1.2 Causes of most recent incident of self-harm

When describing their most recent incident of self-harm in prison, 13 out of the 15 women interviewed cited both imported and situational factors. Imported factors, which link in with the description of automatic or affect-regulation models of self-harm (section 1.3.2), included

past histories of sexual abuse, domestic violence, family neglect, the impact of having children removed from their care and mental health problems, all of which made the women vulnerable to self-harm:

> *"I was just really depressed. I started having thoughts about when I lost the baby and stuff like that, just really nasty things".* *(P3:23)*

However, situational precipitants were more commonly cited. The situational factors described here, reflect the social factors as described by Nock (2008). According to the women these included: as a response to an event, an act of passivity or being denied something, a change in environment which included being put on the Basic Regime, being bullied, feelings of punishment and perceived unfairness of treatment, as well as feelings that they were not being listened to:

> *"It's like you've got to self-harm to see blood to give yourself attention when nobody's listening."* *(P12:382)*

> *"It was a cry for help to be honest, to show the jail that, not just to show the jail, it was to show in my head that I was down, that things weren't going right in the jail, things needed to be done in the jail".* *(P13:474)*

3.2.1.3 Intention

Ten of the women described self-harm as a method of coping with their emotions, also as a form of self-punishment and a way to relieve pain and frustration:

> *"I'll just sit there thinking about my past, you know, how I've come to prison in the first place, I've let my kids down, you know, and then I just get really, really, really worked up and then I just have to see blood to, you know, relieve my pain."* *(P8:437)*

3.2.1.4 Feelings prior to self-harm

Self-harm was described by the women as an impulsive act, related to intense feelings of anger, hurt and frustration:

> *"It's like a, I don't know, like an adrenalin rush and you just, you get up and then you just get a build up inside and then you just go for it".* *(P2:64)*

3.2.1.5 Feelings after self-harm

For several women (n=5) self-harm removed feelings of anger and enabled them to calm down:

> *"I feel alright in myself, I'm not angry anymore." (P10:79)*

A few women (n=4), despite feeling anger relief, also experienced feelings of regret:

> *"Because I don't like looking at the scars on my arm, after I've done it I regret it but it's too late". (P12:339)*

3.2.1.6 Stopping self-harm

Ten of the 15 women stated that when they felt like they might self-harm there was nothing that could have stopped them. Although three women stated that there were things that could be changed in the prison that might reduce their self-harming behaviour:

> *"The only thing that would have stopped me harming myself is them telling me that I didn't have to go on Basic and loose my job." (P6:40)*

Also, four women describe incidences where they had managed to prevent themselves from self-harming through diversionary measures. For one woman writing provided a means of stopping self-harm:

> *"Well I have stopped myself a few times. I get a pen and paper and start writing letters to myself. It's worked because just writing is the only thing that can stop me from self-harming." (P5:47)*

3.2.2 Self-Harm: Prison officer perspectives

Table 10- Themes and sub-themes of prison officer and Governor views

Causes	Imported *(Automatic functions)*	Past abuse, drug/alcohol
		mental illness
	Manipulation *(Social functions)*	of staff
		of the environment
Understanding	'genuine' *(Automatic functions)*	linked to mental illness
		secretive
		more serious/severe acts
	'non-genuine' *(Social functions)*	to achieve something/manipulate
		learned behaviour
		superficial/low risk acts
		time wasting
Intervention	Not suitable for all	non-genuine' don't need it
		prolific self-harmers too complex
		open to manipulation
	Positive for some	opportunity to talk
		good for 'genuine' low-risk

Shaded areas show a priori themes

Table 11- Themes and sub-themes of prison healthcare staff views

Causes	Imported *(Automatic functions)*	abuse/domestic violence
		drug/alcohol
		mental illness
	Situational *(Automatic and social functions)*	disempowerment
		detoxification
		isolation
Understanding	Cry for help *(Automatic and social functions)*	communication
		coping mechanism
		desperation
Intervention	Needed	opportunity to talk
		coping skills
		communication skills

Shaded areas show a priori themes

As in the prisoner interviews, the semi-structured interviews with prison and health care staff, introduced a number of key themes. When asked about their views on the causes of self-harm, particularly within the prison, there was a difference in the themes that arose from the analysis of the prison and health care staff interviews. Analysis of the data also identified different themes and sub-themes arising from questions on understanding of the functions of self-harm and on the need for interventions to reduce self-harm within the prison (Tables 10 and 11).

3.2.2.1 Causes of self-harm in prison

Prison officers gave three main reasons why they believed women self-harmed in prison. These included a) imported factors such as women's experiences of distressing past events; b) women suffering from mental illnesses, often associated with those women the prison officers considered "prolific self-harmers"; and c) those who staff considered to be self-harming as a form of manipulation, often associated with the women who only self-harmed whilst in prison:

> *"They have a lot of outside stresses and strains, not just what they've been*
> *committed to court for but also family issues and stuff … and you get a lot*
> *of people with mental issues because there are no outside hospitals for them*
> *to go to so they send them here". (S2:3)*

The factors identified by the prison officers could also be divided into automatic and social functions of self-harm. Imported factors and mental illness would fall into automatic reasons as described in section 1.3.2. They also described manipulation of them as officers or the prison system to achieve specified goals as a strong reason for self-harm in the prison. Although labelled as manipulation by the officers, these reasons could also be interpreted as social functions of self-harm, aimed at eliciting a caring response from others or of affecting a change in circumstances over which they feel they have little or no control.

Unlike the women prisoners, the majority of prison officers (n=7) did not cite situational factors as causing self-harm in prison. However, one officer did recognise this may be a contributing factor:

> *"It's so shocking for them in some ways, it's a frightening place to be at*
> *the end of the day". (S6:14)*

Only four prison officers considered that the women self-harmed as a way of coping or as a releasing built up anger or stress:

> *"It's their way of dealing with something because they've never had anyone to speak to". (S7:5)*

Most prison officers (n=6) said that self-harming was and had become a way of life for the women, with most of them having had long histories of self-harming behaviour in the community:

> *"Some have been doing it for twenty years so it's their way of life; they're never going to stop". (S7:41)*

In comparison to the prison officers, healthcare staff were able to give more detailed responses as to why they thought the women in prison self-harmed. These included some different imported and situational factors. Imported factors included histories of abuse, domestic violence, addiction and mental illness:

> *The majority I would say are survivors of childhood trauma, probably sexual, physical, mental abuse as children. The majority coming from very dysfunctional families". (H5:19)*

For the majority of healthcare staff (n=4) the prison environment and the associated stresses it caused was seen as an important influencing factor in prisoner self-harm, in particular the feeling of disempowerment caused by being in prison:

> *"Uh, being in prison, sometimes people can feel disempowered and by using a form of self-harm it gives them a feeling of empowerment and control". (H3:18)*

Detoxification from drugs whilst in the prison was also identified:

> *"We've taken away their way of control by using drugs; a lot of them revert to either starting self-harm or reverting back to using self-harm as a way of coping". (H2:22)*

Four out of the five healthcare staff interviewed, described self-harm as a way of method of coping and release for the women prisoners:

> *"It may well be their way of relieving that stress and that tension. Um, and though talking can be helpful, drop-in centres can be useful, seeing psychologists can be useful, it may well boil down to the fact that cutting yourself and seeing the blood oozing out is a much more visual representation of a relief of tension than talking to somebody". (H3:45)*

3.2.2.2 Understanding of why the women self-harmed

The prison officers gave mixed responses when asked if they could understand why a woman in the prison would want to self-harm. Five out of eight officers said that they could understand in part why a woman would want to self-harm, but their answers showed conflict in trying to understand the behaviour:

> *"I never saw a knife and thought "I'm a bit annoyed, I'll just cut my arm",*
> *so that's the kind of thing I don't understand how people start initially,*
> *but I do understand why they do it". (S7:61)*

However, all of the healthcare staff stated that they could understand why a woman would want to self-harm in prison, due to the combination of unresolved issues a woman may have combined with the stresses of the prison environment:

> *"I do understand why they do it and um, to a certain level I accept that they*
> *need to do it". (H5:24)*

3.2.3 Attitudes to a talking treatment

The majority of women (13/15) considered that going to a therapy session once a week to discuss issues around their self-harming would be helpful to them and that they would be willing to attend. This was for two main reasons. Firstly, the women believed that the therapy would be positive and would give them the opportunity to discuss their problems and feelings with someone who was willing to listen:

> *"Its like if you're thinking of something bad, and tell them what it is, people*
> *can be like put it in a different way and make it seem better. It's like sharing*
> *how you're feeling". (P1:251)*

Secondly, most women (n=11) considered that the therapy could be helpful because of the security it offered them in knowing that there was a set person, time and space dedicated for them each week:

> *"You would know that things wouldn't have to build up and build up and*
> *get to that point. I could put stuff to the back of my mind and be like 'well,*
> *I'm going to see somebody to talk to them about it". (P1:296)*

However, three of women prisoners had reservations about the therapy and whether it would be helpful for them:

> *"I think I'd just have to see what it was like ... I'd give it a try, see what it is like first." (P7, 220-221)*

Six out of eight prison officers also considered that a talking treatment could help the women who self-harm. For some, this was because the women could learn to understand their behaviour and be taught how to improve their communication skills:

> *"Some people don't know how to communicate here, because you only know what you've been taught and if you haven't been shown how to communicate properly then they're never going to know". (S8:552)*

Other prison officers believed that the talking treatment would help the women as it gave the women the opportunity to talk and have someone listen to them:

> *"With some of them it might make a difference to have someone sit down with them and give them some time to listen". (S3:421)*

However, although most prison officers believed that a talking treatment would be helpful, the majority (n=5) qualified their responses in some way, believing that a talking treatment could only be helpful to a certain extent. These prison officers believed it would help some women but not others, in particular with those women who they considered "prolific self-harmers" with complex problems and a lack of willingness to engage with staff:

> *"Maybe for some women but probably not for prolific self-harmers as they have got deep rooted problems. So for the people who are feeling low and perhaps cut themselves because they were being bullied then maybe yes, as they can get if off their chest to an independent person." (S2:389)*

However, three prison officers felt that the helpfulness of a talking treatment was limited due to the fact that they believed it could be open to manipulation by those women they deemed as "non-genuine self-harmers":

> *"I would imagine that you may have to put it across the board, in which case you are going to waste an awful lot of time, because there are no issues to unveil in some of these women." (S3:390)*

Most healthcare staff (n=4), like prison officers, believed that a talking treatment could help the women that self-harmed. In particular they felt it could teach the women new coping and communication skills, as well as the benefits of having someone there to listen to them:

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"They could have been brought up in an environment where it was expected to shout at people, they don't really know how to communicate and to them it's perfectly normal to react or self-harm or that sort of thing and sometimes it's about teaching them new coping skills". (H2:662)

3.2.4 Summary

When asked about the causes of their self-harm, the majority of the respondents stated that they had a history of self-harm in the community as well as whilst they were in prison. They reported that both imported factors and situational responses to being in the prison led to their self-harming behaviours whilst in prison. All of the women prisoners reported automatic functions, such as the relief of pain or anger as the primary function for their self-harm. This was in contrast to the prison officers who were interviewed, who reported that they thought prisoners displayed primarily social functions, such as attention seeking or to get their own way on some issue, as the reason for their self-harm. Labelling behaviours as "genuine" or "non-genuine" and distinguishing between the two was seen as important by all of the prison officers interviewed. In contract to officer views, Healthcare staff' views were much more in line with those of the prisoners and reflected a greater understanding of self-harming behaviours.

3.3 Phase 2- Adapting the intervention

The qualitative interviews discussed in the section above, raised a number of practical issues which needed to be considered in order to tailor the therapy to the specific needs of this population. The interviews also identified a number of potential barriers to delivering any intervention in a prison environment. Table 12 below, summarises the themes and sub-themes that arose from the analysis of the data from all the participants. This section describes how the methods for the pilot study were informed by the results of the Phase 1 interviews and describes some of the key ways in which we modified the therapy and the practical issues of delivering the intervention. Although this section therefore contains methods, they are presented here as they form part of the results from the Phase 1 interviews.

Table 12- Themes and sub-themes for the adaptation of the intervention to the prison environment

Adapting the intervention	Therapist	gender issues
		would talk to prison staff
		qualities important not role
	Participants	sentence length
		severe mental illness/learning difficulties
		high risk of violence
	The therapy	close each session
		disorganised lifestyle/retention
	Practicalities	disengagement from therapy
		security/lock-down
		movement/escort difficulties
		therapy rooms
		flexibility in day/date of sessions

Shaded areas show a priori themes

3.3.1 The therapists

The interviews showed that differing views were held by the women prisoners on who in the prison would be best to deliver the intervention. Most women prisoners (n=12) said that they could think of officers and healthcare staff that they would be willing to work with. The women prisoners indicated that it was the skills of the person that were most important not their role within the prison. The women prisoners identified several factors which they thought were important to them for engagement in the therapy. Some of the qualities identified were that: the staff were understanding, non-judgemental and made time to speak to women prisoners when they were in need. This was also reflected in the health care staff interviews when they were asked if they thought prison officers could deliver the therapy:

> *"Grade doesn't matter at all. It's about the individual isn't it and it's about you identifying the criteria, its about that person having people skills, good communication skills, and being understanding of the client group and wanting to support them". (H5:238)*

As a result of this, the therapists were recruited from a range of backgrounds with a general person specification focussing on the qualities identified above. It was considered beneficial

if the staff had some prior experience of working within a mental health setting or experience of other psychological interventions but this was not a necessity.

Gender of the staff member delivering the therapy was seen as important to 13 out of 15 women prisoners. All of the 13 women expressed a preference for female staff members as they found them easier to talk to. This was often related to past abusive relationships with men and the subsequent difficulties they felt in trusting men:

> *"you see I've had really bad domestic violence relationships with men, and I find it hard to talk to men. I find that some men do understand but some don't and so I can't talk to them to be honest, myself, I cant talk to them. I get nervous and jittery when I talk to them; I tend to talk to the women instead". (P13:640)*

This concern was also expressed by both management staff:

> *"You need some method for dealing with gender, even to the point that if I'm a man and I come to you and I've not assessed whether there is a potential immediate barrier then we're going to have a problem aren't we because you're not going to listen to even the first word I say are you?" (M1:730)*

3.3.2 The participants

The interviews with staff at the prison helped to formulate the inclusion/exclusion criteria for the participants. It is known that there are a high percentage of women in the criminal justice system who have mental health problems (Singleton et al, 1998). Some of these can be very severe and women may be placed in Styal while they wait for a place in a secure hospital. These women out of necessity were excluded from the study as it was thought that their ability to engage in a therapy would be affected. Related to this, there are also women in the prison system who are considered to have severe learning difficulties. These women prisoners would be particularly difficult to engage and their retention skills would likely be affected. Exclusion only occurred after consultation with the prison In-Reach team, and if the potential participants had diagnoses of mental illness or severe learning difficulties which meant that they would be unable to engage.

Another factor that became apparent through the interviews is that as HMP Styal is a local prison, the duration of women prisoners' sentences is fairly short:

"the other issue for me is the person that you're actually dealing with, how long have you actually got them in the prison for?". (H5:37)

On average the majority of women prisoners serve around six weeks, which is the minimum time that would be needed to deliver the intervention. Therefore, it was considered necessary to exclude any individuals who had less than six weeks left to serve on their tariff. HMP Styal also holds a large number of remand prisoners, if they were on remand for at least six weeks then they were not excluded from the study. It was discussed in the Steering Committee whether 'medical holds' should be placed on women prisoners recruited to the study. Medical hold is a term applied to the process of preventing the transfer of a prisoner if they are undergoing some specific form of medical or psychological treatment which may not be available at other establishments. The 'holds' are only advisory and cannot be guaranteed if there is a specific reason to move a prisoner, they are also only for a short duration, usually around four weeks. It was decided that as this was primarily a feasibility study, existing conditions within the prison environment should be consistent with general practice. To put medical holds on anyone who is undertaking therapy would be extremely difficult for the prison to maintain over a sustained period.

Another exclusion criterion was added as a result of prison safety procedures. Women prisoners identified as being high risk of violence to others cannot be seen on a one-to-one basis and therefore would not be able to receive the intervention. However, level of risk is assessed frequently and may change over time. Women prisoners that have met the other criteria and are subsequently removed from a high security status, could then be recruited to the study at a later date. No formal assessment of risk was conducted by the research team, therefore the level of risk that prisoners presented was taken from prison records and on the advice of prison staff.

3.3.3 Modifying the therapy

Few modifications were needed to the therapy itself. Most aspects that required changing concerned the delivery of the intervention in a prison environment. One factor that was raised is related to the transient nature of the population. As participants could be transferred or released from the prison at any time, with little warning, each of the therapy sessions needed

to be self-contained. Each individual therapy session therefore needed to be closed as every session may potentially be the last session. This was addressed in the training that the therapists receive.

> *"... I think that the problem with us being a remand prison, we're never quite sure how long we're going to have women... they have to come into each session almost with a view that this could be the last session so we're really, in a way, we are giving a disservice to the women..." (H2:215)*

Another consideration is that disorganised lifestyles (prisoners may not be aware or are given little notice of visits or appointments that have been made for them, they may change their minds on what they wish to do at any time, such as whether to attend an appointment or take part in an activity instead) and medication/drug use may affect retention of the therapy content between sessions. To try and address this, participants of the therapy completed an 'aide memoire' during the sessions which they could take away with them to help them recall what was discussed.

3.3.4 Practical issues of delivery

One difficulty of working in a prison environment that became apparent through the interviews was that security is the primary consideration. If a lock-down is called for operational reasons then participants are not able to leave their cells to attend any sessions at those times. Unfortunately, this could not be anticipated and sessions just had to be rearranged for another day. Related to this, healthcare reported that they have a large number of people that do not attend appointments because of "movement difficulties". For this reason, the time period of the sessions needed to be flexible.

> *"there are difficulties with regards the regime in escorting prisoners from Waite Wing in particular, in fact fifty percent of the appointments in healthcare are DNA, they just do not turn up and apparently that's a problem throughout the whole of the prison" (H5:139)*

Again women prisoners may miss sessions because they are unable to get from the Wing or Houses where they reside to where they are due to have the therapy. In an attempt to address this, therapists were advised to ensure that prison officers knew when a woman prisoner was due to have therapy sessions and to ensure that either 'free-flow' passes are completed or an

escort arranged. Free-flow passes are for prisoners who are assessed as low-risk and are therefore allowed to move around the prison without being escorted by prison staff.

Another consideration was that this population can be very difficult to engage and disengagement rates can be high. In order to combat this, if a participant missed a session the therapist was asked to contact the individual to ascertain the reason for this and to rearrange another session. If there was no specific reason for missing the session and the participant continued to miss up to three sessions in a row, then the sessions ceased and the participant was considered to have dropped out of the study. If, as above, there are operational difficulties that resulted in the participant missing the session then these were noted and sessions rearranged.

Some of these obstacles could be controlled to an extent, for example by considering where the therapy sessions were to take place. There were advantages and disadvantages to delivering the intervention in different areas of the prison. If the sessions were to be held on the Wing the advantage would be that the participants would be able to go to sessions without an escort and may possibly be able to attend sessions in the event of a lock-down. The disadvantage to using the Wing is that it very noisy, with little privacy and space is limited. The lack of privacy could also draw attention to those who self-harm and has the potential to increase stigma. The alternative would be to deliver the intervention away from the Wing, in Healthcare. The atmosphere in Healthcare is more conducive to therapy and private rooms are more readily available. However, the difficulties that other health professionals experience in getting women released from the Wing or Houses to attend appointments would also affect this intervention.

3.3.5 Summary

Based on the interviews with the women prisoners who self-harm, prison and healthcare staff, it was thought that the model of therapy would be suitable to the prison environment with little modification. There were only two changes that were implemented, 1) that each of the therapy sessions had to be concluded to try and ensure that participants were not left in a

vulnerable state in case it was their last session and 2) that the day and time of weekly sessions had to be flexible. The interviews showed that the women prisoners and health care staff did not think the position/grade of the therapist within the prison was important but that the personal qualities possessed by the individual were. However, gender of the therapist was considered important. and therefore participants had to be offered a choice in the therapist they saw. There was some concern as to the women prisoners who would be involved in the trial but this was strongly linked to staff views of 'genuine' and 'non-genuine' self-harm. It was also decided by the team, that any participant who failed to attend sessions would be actively contacted to ascertain the reason why and to try and keep them in the study.

CHAPTER 4 – RESULTS 2: PHASE 4

These results address the quantitative results for the third and fourth objectives:

3. To determine the ability of non-clinical prison staff to deliver a psychotherapeutic intervention.

4. To assess the feasibility and acceptability of implementing the intervention in a local prison.

4.1 Participant recruitment and retention

4.1.1 Figure 4- CONSORT Flow Diagram

Enrolment

Assessed for eligibility (n=123)

Excluded (n=59)
- Not meeting inclusion criteria (n=41)
- Declined to participate (n=18)

Randomized (n= 64)

Allocation

Allocated to PIT therapy (n=32)
- Received allocated intervention (n=27) Completed (n=13)
- Did not receive intervention (n=5)

Allocated to Control (n=32)
- Received allocated intervention (n=20) Completed (n=14)
- Did not receive intervention (n=12)

Follow-Up

Lost to follow-up (n=16) Transferred (n=9), released/bailed (n=3), hospitalised (n=1), disengaged (n=3)

Lost to follow-up (n=18) Transferred (n=8), released/bailed (n=4), hospitalised (n=2), disengaged (n=4)

Analysis

Analysed:
- Rates of self-harm (n=32), BDI & BSIS (n=16), BHS & IIP (n=15) Excluded from analysis (n=0)

Analysed:
- Rates of self-harm (n=32), BDI & BSIS (n=13), BHS & IIP (n=14) Excluded from analysis (n=0)

As the above diagram shows 123 women prisoners were identified and assessed for eligibility. Of those assessed, 41 women prisoners were excluded due to not meeting all of the inclusion criteria. The main reason for exclusion was that the person had committed no acts of self-harm within the month preceding the date of screening. However, the 41 also included two prisoners who were excluded due to their level of risk to others (to protect staff they are not allowed to be seen on a one-to-one basis) and a further four women prisoners who were considered by prison staff to be too vulnerable to take part in the study due to recent bereavement. As well as the 41 women prisoners excluded, a further 18 potential participants declined to take part in the study, leaving a total of 64 women prisoners who were randomised to the trial. Those that declined often did not give a reason but several stated that they had been self-harming for much of their lives and that they did not feel that any intervention would help them and therefore they did not want to participate. No demographic information or self-harm history was recorded about those women prisoners who were excluded or declined to take part in the study.

4.1.2 Intervention completion

The COHORT diagram shows that many of the participants in both the therapy and control groups did not complete the treatment sessions they had been randomised to. The table below describes the number of sessions participants received in each treatment group.

Table 13– Session completion by treatment group

No. sessions completed	Therapy	Control
4	13	14
3	4	0
2	6	5
1	4	1
0	5	12

The mean number of days it took for participants to complete the intervention was 57 days (*SD 20.1*) for the therapy group, and 52.6 days (*SD 23.2*) for the control. Prison statistics show that on average a prisoner is in this prison for 47 days. The sample included in this study appears to have been in the prison longer than average. This is probably due to the fact that the prison is a local prison and therefore has a high percentage of prisoners who are on

remand. For the purpose of this study we had to exclude prisoners who were likely to be in the prison for less than 6 weeks. Therefore the participants were likely to be in the prison for longer than the population average. As nearly all interventions in this environment would exclude these participants it should not affect results around feasibility.

4.2 Sample demographics
Table 14 – Demographic data for total sample
Recruitment over 24 months

Demographic		Total sample n=64
Age		Range 18-65yrs (mean 28yrs, SD 10.0)
		[n= 64, 0 missing, 0 NA]
Ethnicity	White	92% (n=59)
	Mixed race	8% (n=5)
		[n= 64, 0 missing, 0 NA]
Marital status	single	86% (n=55)
	married	6% (n=4)
	divorced/sep/widowed	8% (n=5)
		[n= 64, 0 missing, 0 NA]
Children	yes	47% (n=30)
	no	53% (n=34)
		[n= 64, 0 missing, 0 NA]
Number of children		Range 1-7 (mean 1.2, SD 1.8)
		[n= 29, 1 missing,34 NA]
Care of children	father/other family	52% (n=15)
	care system	38% (n=11)
	unknown	3% (n=1)
	over 18 (na)	7% (n=2)
		[n= 29, 1 missing,34 NA]
Age left school	Under 16	63% (n=39)
	16+	37% (n=25)
		[n= 62, 2 missing, 0 NA]
Prison Variables		
Prison status	sentenced	73% (n=47)
	remand	27% (n=17)
		[n= 64, 0 missing, 0 NA]
Sentence length		Range 3-240mth (mean 41mth, SD 50.2)
		[N=47, 0 missing, 17 NA]
Previous imprisonment	yes	55% (n=35)
	no	45% (n=29)
		[n= 64, 0 missing, 0 NA]

The above table describes the demographic details of the full sample (n=64). As can be seen, the age range for the sample was wide (18-65 years) but the overall mean was relatively young (28 years). Less than half of the participants (n=30) had children but of those that did, half (n=15) were still with a family member whilst the mother was in prison. The majority of the participants were sentenced (n=47) and just over half had served at least one previous sentence (n=35).

Table 15 – Self-harm variables for the total sample

Self-harm variables		Total sample n=64
Self-harm	In prison only	27% (n=17)
	in and out of prison	73% (n=47)
		[n= 64, 0 missing, 0 NA]
Age of onset		Range 5-64yrs (mean 18yrs, SD 10.0)
		[n= 64, 0 missing, 0 NA]

Age of onset for self-harm ranged between 5-64 years of age with a mean age of 18 years (SD 10.0). Late onset of self-harm in some prisoners, may be linked to the finding that 27% (n=17) of the participants had only started self-harming whilst they were in prison. The baseline assessments also recorded self-report prevalence of a number of factors thought to be related to risk of self-harm/suicide:

Table 16 – Risk factors for total sample
[n=64]

CURRENT/PRE-SENTENCE DRUG AND ALCOHOL USE	YES	NO
Alcohol Dependence	46 (72%)	18 (28%)
Drug Dependence	37 (58%)	27 (42%)
PAST EXPERIENCES:		
Hospitalisation for SH	36 (56%)	28 (44%)
Care Placement	29 (45%)	35 (55%)
Neglect	21 (33%)	43 (67%)
Domestic violence	41 (64%)	23 (36%)
Sexual Abuse	49 (77%)	15 (23%)
Contact with Psych services	45 (70%)	19 (30%)

[0 missing cases]

Figure 5 – Risk factors for the total sample

Risk factors for the total sample
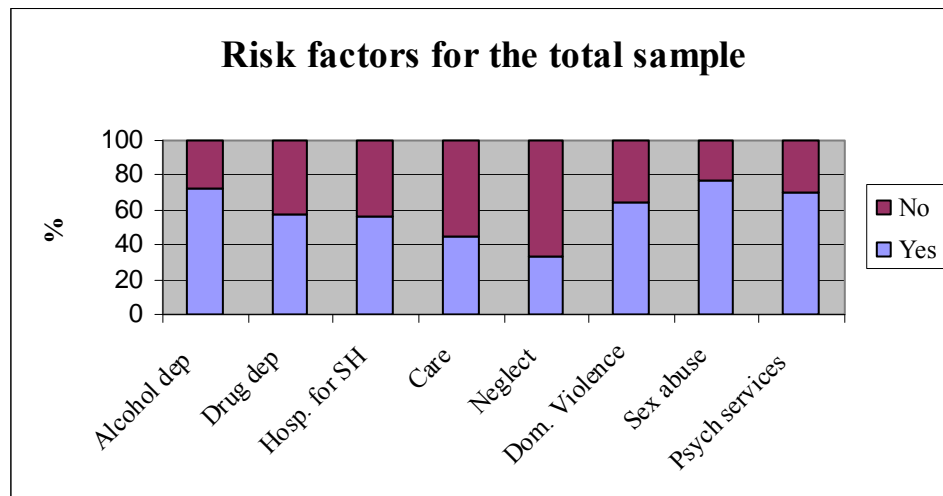
Participants reported high levels of alcohol and drug dependency (n=46, n=37 respectively). Reports of past sexual abuse (n=49) and domestic violence (n= 41) were also particularly high. Many participants stated that they had had previous contact with psychiatric services (n=45) and over half (n=36) of the sample had previously been hospitalised on at least one occasion, due to their self-harming behaviour. It was decided to collect demographic data that was routinely available. Assessments of mental and physical health are time consuming and it was decided by the research team that further assessments may over-burden participants and that although interesting, these were not essential for the present study. The main aim of collecting the baseline demographic information was to provide a description of the sample and to enable others to determine the generalisability of this population to other similar populations. It would have been useful to collect more data but due to the time restrictions of this study and potential interview fatigue of participants, data was not collected on the full range of risk factors as described in section 1.2.3, this is discussed further in Chapter 6 section 6.2.4.3. Another limitation is that demographic and risk factor data was not collected for participants who refused to take part in the study. The reason for this was that we had to get the prisoners permission to look at details in their ACCT documents. Also much of the information was gathered in the baseline assessment interview which they did not agree to take part in. Therefore we could not access this information for the prisoners who refused.

Table 17 - Comparison of demographics by group (Therapy Vs Control)

Demographic		Therapy	Control	value	p-value
Age (n=64)		Range 18-46 (mean 27yrs SD 9.0)	Range 19-65 (mean 29yrs, SD 11.0)		
		[n= 32, 0 missing, 0 NA]	*[n= 32, 0 missing, 0 NA]*	t= -0.71	0.480
Ethnicity (n=64)	White	91% (n=29)	94% (n=30)		
	Mixed race	9 % (n=3)	6% (n=2)		
		[n= 32, 0 missing, 0 NA]	*[n= 32, 0 missing, 0 NA]*	χ2= 0.22	0.641
Marital status (n=64)	single	91% (n=29)	81% (n=26)		
	married	6% (n=2)_	6% (n=2)		
	divorced/sep/wid	3% (n=1)	13% (n=4)		
		[n= 32, 0 missing, 0 NA]	*[n= 32, 0 missing, 0 NA]*	χ2= 2.5	0.645
Children (n=64)	yes	41% (n=13)	53% (n=17)		
	no	59% (n=19)	47% (n=15)		
		[n= 32, 0 missing, 0 NA]	*[n= 32, 0 missing, 0 NA]*	χ2= 1	0.316
Number of children		Range 1-7 (mean 1, SD 1.7)	Range 1-7 (mean 1.5, SD 2.0)		
		[n= 13, 0 missing,19 NA]	*[n= 16, 1 missing,15 NA]*	t= -1	0.328
Care of children	father/other family	38.5% (n=5)	63% (n=10)		
	care system	38.5% (n=5)	37% (n=6)		
	unknown	8% (n=1)	0%		
	over 18 (na)	15% (n=2)	0%		
		[n= 13, 0 missing,19 NA]	*[n= 16, 1 missing,15 NA]*	χ2= 5.62	0.230
Age left school (n=64)	Under 16	47% (n=15)	75% (n=24)		
	16+	50% (n=16)	22% (n=7)		
		[n= 31, 1 missing, 0 NA]	*[n= 31, 1 missing, 0 NA]*	χ2= 5.6	<0.05

Table 18 - Comparison of prison variables by group (Therapy Vs Control)

Prison Variables		Therapy	Control	value	p-value
Prison status	sentenced	69% (n=22)	78% (n=25)		
(n=64)	remand	31% (n=10)	22% (n=7)		
		[n= 32, 0 missing, 0 NA]	*[n= 32, 0 missing, 0 NA]*	χ2= 0.72	0.396
Sentence length		Range 4-318mth (mean31, SD 28.9)	Range 3-240mth (mean 50.4, SD 62.6)		
		[N=22, 0 missing, 10 NA]	*[N=25, 0 missing, 7 NA]*	t= -1.3	0.197
Previous	yes	56% (n=18)	53% (n=17)		
imprisonment	no	44% (n=14)	47% (n=15)		
(n=64)		*[n= 32, 0 missing, 0 NA]*	*[n= 32, 0 missing, 0 NA]*	χ2= 0.06	0.802

The data suggest that the therapy and control groups had very similar baseline characteristics. The only baseline variable which did show a significant difference between the therapy and control groups was education. Women prisoners in the control group were more likely to have left school before completion (GCSE examinations) than were those in the therapy group (p<0.05). Chance imbalance in is common in a very small sample size and reduces with greater sample sizes (Bland, 2000).

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Table 19 - Comparison of self-harm variables by group (Therapy Vs Control)

Self-harm variables		Therapy	Control	Value	p-value
Self-harm	In prison only	25% (n=8)	28% (n=9)		
(n=64)	In and out of prison	75% (n=24)	72% (n=23)	χ2=0.08	0.777
Age of onset (n=64)		mean 17.7yr, (5-38yrs SD 8.8)	mean 18.5yr (7-64yrs, SD 11.2)	t= -0.32	0.748

Table 20 – Risk factors by treatment group

CURRENT/PRE- SENTENCE DRUG AND ALCOHOL USE	Therapy N=32	Control N=32	χ2	p-value
Alcohol Dependence	23 (72%)	23 (72%)	0.00	1.000
Drug Dependence	19 (59%)	18 (56%)	0.06	0.800
PAST EXPERIENCES:				
Hospitalisation for SH	17 (53%)	19 (59%)	0.25	0.614
Care Placement	14 (44%)	15 (47%)	0.06	0.802
Neglect	10 (31%)	11 (34%)	0.07	0.790
Domestic violence	20 (63%)	21 (66%)	0.06	0.794
Sexual Abuse	22 (69%)	27 (84%)	2.18	0.140
Contact with Psych services	25 (78%)	20 (63%)	1.87	0.171

[0 missing cases]

Figure 6 – Risk factors by treatment group

Figure 6 – Risk factors by treatment group
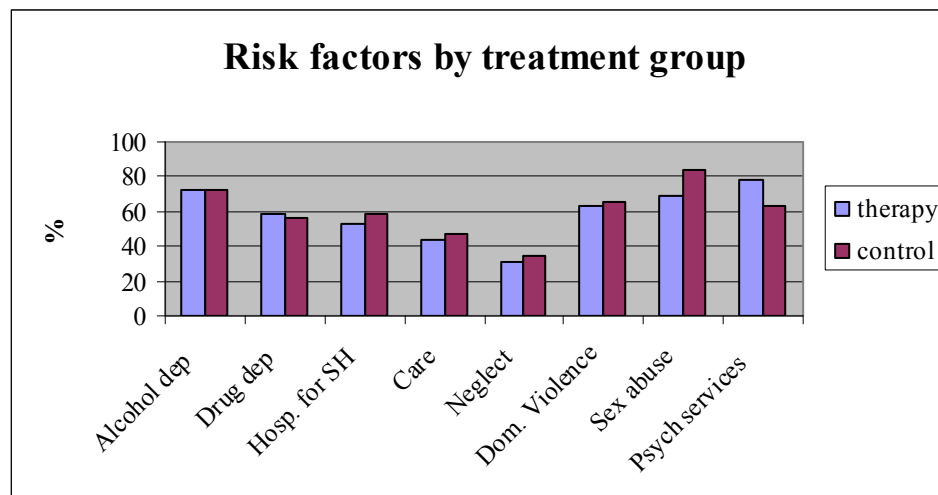
As the figures above show, levels for risk factors in the therapy and control groups were very similar. However, there was some difference in two of the variables: history of sexual abuse and past contact with psychiatric services. Participants in the control group reported higher levels of sexual abuse (n=27) as compared to the therapy group (n=22), whereas participants in the therapy group more frequently reported past contact with psychiatric services than those in the control group (n=25, n=20). However, none of the results were significant.

4.3 Outcome data

4.3.1 Incidence of self-harm
Rates of self-harm were obtained by working out the number of self-harm incidents by person days, pre- and post-intervention.

Table 21 – Poisson regression of the pre- and post-intervention self-harm rates for the total sample, the therapy group and the control group

Variable	Mean (SD)	Number of self-harm events/ days	Rate per 100 person days	Incident Rate Ratios (IRR)s	P-value	95% CI
Total sample pre-intervention	2.97 (2.17)	190/1379	13.8			
Total sample post-intervention	2.13 (2.11)	136/2709	5.0	0.36	P<0.001	0.29-0.46
Therapy Group pre-intervention	2.59 (1.64)	83/655	12.7			
Therapy Group post-intervention	2.25 (1.76)	72/1538	4.7	0.37	P<0.001	0.27-0.51
Control Group pre-intervention	3.34 (2.57)	107/724	14.8			
Control Group post-intervention	2.00 (2.44)	64/1171	5.5	0.37	P<0.001	0.26-0.53

(The standard errors in the Poisson models were corrected for multiple measurements in the same women)

The results of the Poisson regression show that there was a significant reduction in rates of self-harm per 100 person days in the total sample, in the post intervention period versus the time before intervention. This reduction was also evident in both the therapy and control groups. However, analysis of an interaction term fitted between the treatment group and 'before and after' variables, indicated no evidence of a differential effect between therapy and control groups (Incidence Rate Ratio, IRR, 0.99, p=0.997, 95% CI 0.61-1.62). This means that there was no evidence for a differential treatment effect on rates of self-harm between the two groups group. Therefore, we have no evidence for saying that the experimental therapy group was more or less effective in reducing rates of self-harm. Furthermore, rates of self-harm fell markedly across the whole prison during the trial period (see section 4.4, below).

Figure 7 - Mean rates of self-harm pre and during trial by treatment group
All therapy and control participants/therapy and control completers only.
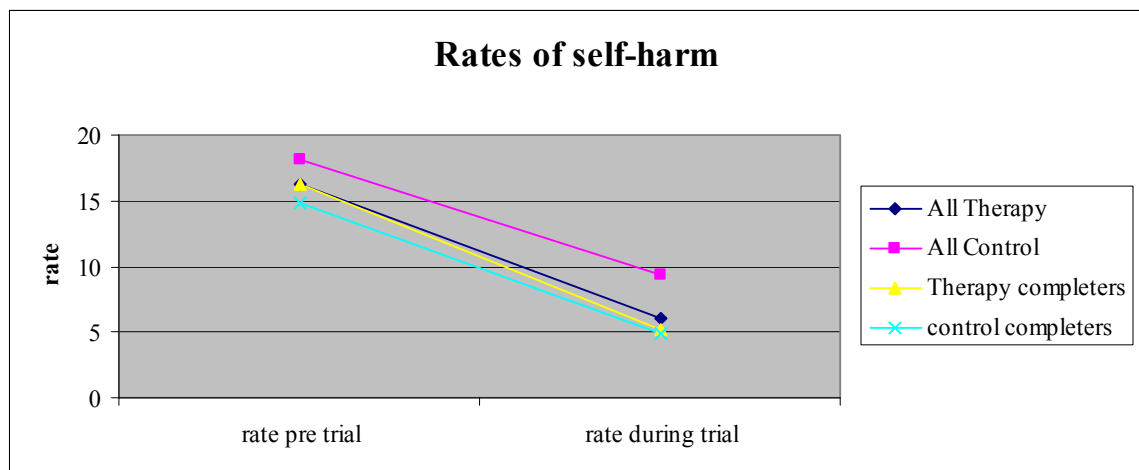
[therapy completers n=13, control completers n=14]

4.3.2 Comparison of scores on outcome measures

All participants were asked to complete a number of standardized psychometric tests at baseline (T1), which included: the Beck Depression Inventory-II (BDI), the Beck Suicide Intent Scale (BSIS), the Beck Hopelessness Scale (BHS), and the Inventory of Interpersonal Problems-32 (IIP). These measures were then repeated when the participants either completed the intervention sessions they were assigned to or withdrew from the study, if they agreed to the interview (T2).

Table 22 - Linear regressions of the pre- and post-intervention scores on the BDI, BSIS, BHS, IIP.

Measure	Group/Time	Mean (SD)	Difference between means	95% CI	p-value	Before and after by treatment group interaction: p-value
BDI	Therapy/T1	37.7 (SD 11.1)				
	Therapy/T2	31.3 (SD 14.8)	-6.4	-12.8 0.1	**0.051**	
	Control/T1	37.5 (SD 12.2)				**0.494**
	Control/T2	28.2 (SD11.8)	-9.3	-15.3 -3.4	**0.003**	
BSIS	Therapy/T1	18.2 (SD 13.1)				
	Therapy/T2	10.4 (SD 12.5)	-7.7	-12.9 -2.6	**0.005**	
	Control/T1	16.4 (SD 12.7)				0.446
	Control/T2	11.9 (SD 14.2)	-4.5	-11.5 2.6	0.205	
BHS	Therapy/T1	13.2 (SD 5.2)				
	Therapy/T2	12.0 (SD 5.1)	-1.2	-3.2 0.8	0.238	
	Control/T1	13.2 (SD 6.2)				0.813
	Control/T2	11.5 (SD 7.3)	-1.7	-5.1 1.8	0.334	
IIP-32	Therapy/T1	1.6 (SD 0.6)				
	Therapy/T2	1.6 (SD 0.5)	0	-0.2 0.3	0.833	
	Control/T1	1.6 (SD 0.7)				0.514
	Control/T2	1.5 (SD 0.8)	-0.1	-0.4 0.2	0.492	

Therapy: T1 All measures n=32; T2 BDI BSIS n=16, BHS IIP-32 n=15.
Control: T1 All measures n=32; T2 BDI BSIS n=13, BHS IIP-32 n=14.
(The standard errors in the regression models were corrected for multiple measurements in the same women)

The table above shows a significant reduction in BDI scores in both the therapy and control groups between baseline and post-intervention scores. However, linear regression tests show

that there was no significant interaction between the treatment group and the reduction in BDI scores. The results also show a significant reduction between baseline and post-intervention scores on the BSIS in the therapy group but not in the control group. Again when the interaction between treatment group and reduction in BSIS scores was tested, there was no evidence of a differential effect between the two treatment groups. There were no significant reductions in scores for the BHS and IIP measures and no evidence of an interaction between treatment groups and scores.

Even though the reduction in scores on some measures were significant, the confidence intervals were wide implying poor precision. In this case it is probably due to the inadequate sample size. The wide confidence intervals mean that there is no evidence of differentiation of effect for the therapy or control groups.

There was a reduction in scores on all measures for both groups, except for the IIP-32 which showed no change in the therapy group. The measure on which the therapy group showed the greatest reduction was the BSIS. On all other measures the control group showed a greater difference in T1 and T2 scores. The reduction in scores on all measures is further described in Figures 9-12 below.
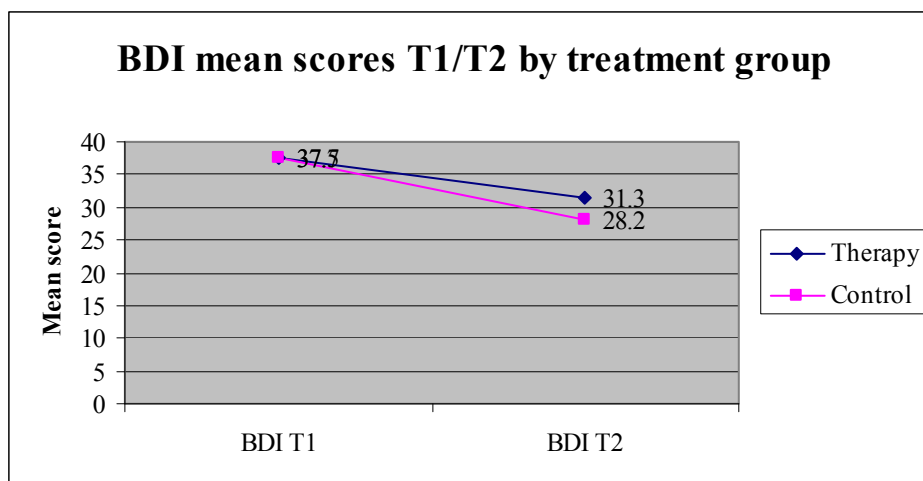
Figure 8 - Changes in mean scores on the BDI by treatment group (any number of sessions)

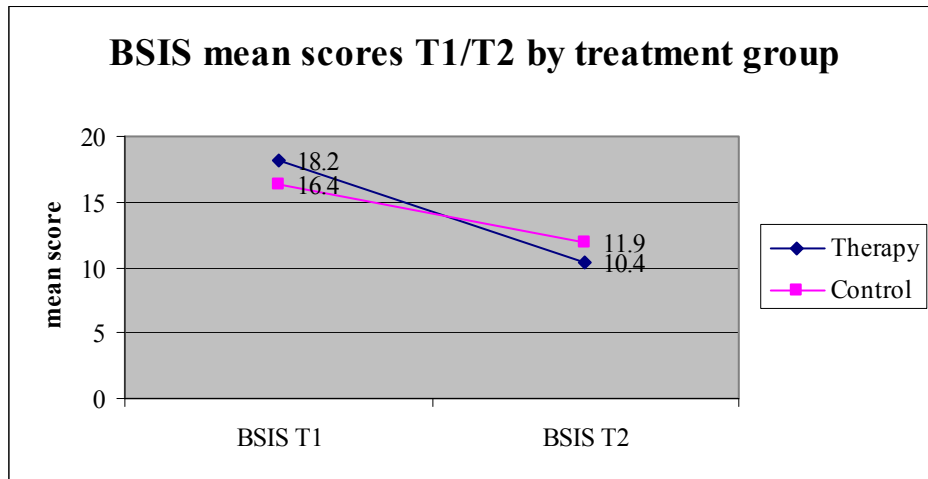Figure 9- Changes in mean scores on the BSIS by treatment group (any number of sessions)

BSIS mean scores T1/T2 by treatment group

Figure 10 - Changes in mean scores on the BHS by treatment group (any number of sessions)

BHS mean scores T1/T2 by treatment group
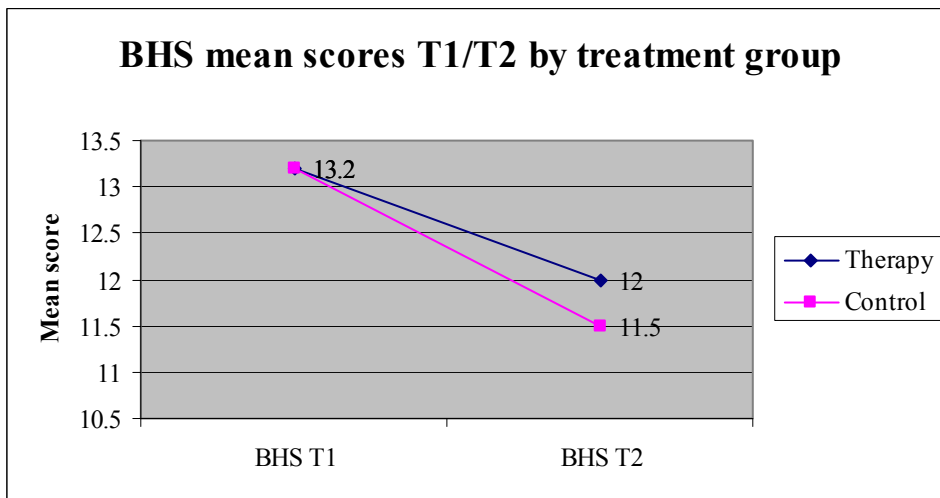
Figure 11 - Changes in mean scores on the IIP-32 by treatment group (any number of sessions)

IIP-32 mean scores T1/T2 by treatment group
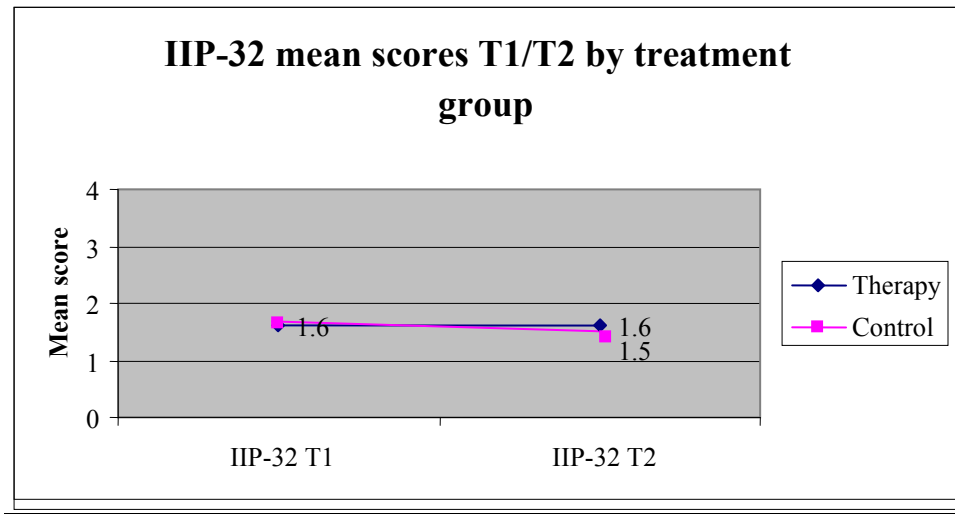
4.3.3 Prison figures on self-harm

The number of self-harm incidents recorded by the prison during the study period showed a dramatic decline in the number of self-harm incidents which took place across the prison. The table below shows the prison statistics for incidence of self-harm over 2 years of the pilot trial period and is illustrated in figure 12.

Table 23 - Number of self-harm incidents across the prison 2008-10

	2008	2009	2010
Jan	122	119	43
Feb	152	76	30
Mar	163	190	
Apr	160	153	
May	158	163	
Jun	313	148	
Jul	171	147	
Aug	229	193	
Sep	239	69	
Oct	202	66	
Nov	130	51	
Dec	134	65	

The figures indicate a large reduction in self-harm across the prison, particularly between September 2009-Febuary 2010. Figures for January 2010 showed a decrease of 65% from the same time in 2008, and the number of self-harm incidents in February decreased by almost 80% in the same time period. Although there were no changes during this period to the Prison Service Order (PSO) rules on the recording of self-harm incidents it is possible that changes took place on a local level. The number of incidents per month is also influenced by specific prisoners and if there are several prolific self-harmers in the prison at any one time, the number of incidents can increase dramatically. Therefore the reduction in incidents may be due to changes in the population during this period. This reduction in self-harm across the entire population in this prison makes it particularly difficult to interpret the results of the study. The implications of this are discussed further in the discussion, Chapter 6

of self-harm across the prison 2008-2010

Incidence of self-harm Jan 2008- Feb 2010

Self-harm incidence

Apr-08 May-08 Jun-08 Jul-08 Aug-08 Sep-08 Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09 Nov-09 Dec-09 Jan-10 Feb-10
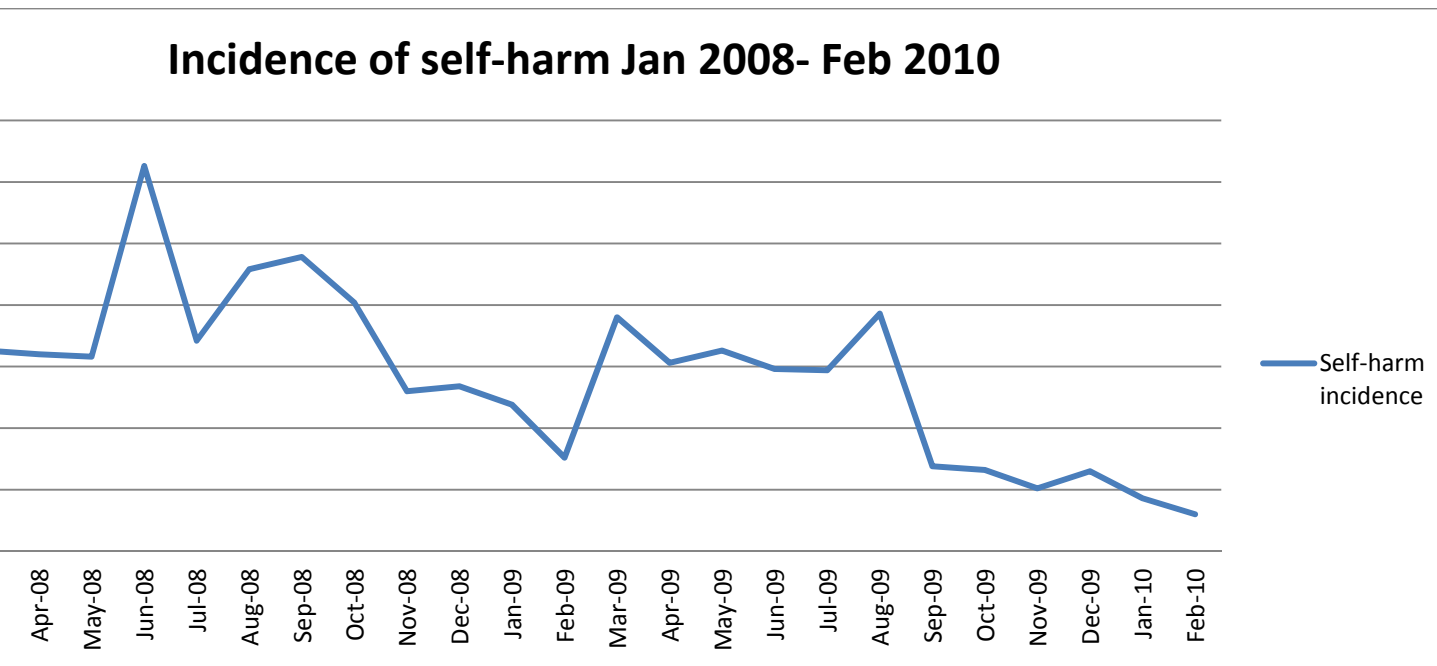
4.4 Phase 4 interviews

Issues of feasibility and acceptability were explored in the interviews with internal and external therapy staff, participants who completed therapy, those who failed to complete therapy, and therapy supervisors. As stated previously, the primary aim of the interviews was to evaluate acceptability and to some degree feasibility of the therapy. Quotes are used to illustrate key themes.

4.4.1 Feasibility

(IT= internal therapists, ET= external therapists, S=supervisors)

4.4.1.1 Internal therapists who failed to deliver any sessions

Interviews were carried out with the three officers who were selected by the Governor and trained in the therapy. After 6 months they were still not regularly delivering therapy sessions so interviews were arranged to explore the barriers from their perspectives. The aim was to try and identify and address these problems in order to facilitate therapy session delivery.

There was a general feeling that the role of therapist for the trial was not being supported in the prison. They reported feeling disheartened by a lack of support from management, colleagues and the research team:

> *"we made the SO's [Senior Officers] perfectly aware you know and then when it came down to it 'no we can't release you. There's not enough staff this afternoon.' " (IT3:202)*

All of the therapists also reported that they felt that Line Managers and senior officers were unaware of the trial taking place in the prison and of the new training/skills they had acquired. When one therapist was asked if they thought their Line Managers were providing enough support, they replied:

> *"No because none of them knew anything about it" (IT2:119)*

It was recognised by all of the therapists that this was a result of a breakdown in communication between the different management levels within the prison, particularly between Governors and Line Managers:

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"because even though the Governors' were apparently aware that we've attended this course and we were due to start therapy sessions, nothing's actually fed down to our senior officers" (IT3:33)

The perceived level of support the therapists were receiving was seen to impact on their ability to get time away from their normal duties to take part in the trial. All three of the officers felt that not being able to get cover/be released from normal duties to do therapy sessions was a major barrier. When asked about getting time covered to do other activities such as mandatory prison training courses, one officer explained:

"No. I can't get released off the detail. Not only this but I've had to cancel training that I'd been booked on for. I've phoned detail to get cover and they can't cover you, can't get anyone to take over" (IT1:37)

Other practical barriers were also explored and one of the major themes to occur were the *s*hift patterns that all of the officers had to work around. Night shifts, TOIL (time off in lieu) and annual leave were seen to cause difficulties for delivering regular sessions. Another factor was that due to understaffing, officers had to do extra shifts particularly at busy times of year such as Christmas and summer holidays.

"Next week I'm on nights, the week after I'm on holiday. So what with your nights and your annual leave, TOIL and not being able to get off the detail, it's just, it's quite frustrating". (IT1:156)

"because we were so short staffed we'd picked up several extra sets of nights. So at that time leading up to Christmas, just after the course, we were totally out, something like five or six weeks and then with leave on top of that. We were out of the equation for a long time the pair of us, which didn't help". (IT3:303)

Securing suitable rooms that could be used regularly was also seen as a problem by all of the therapists:

" these are the only rooms we've got. So you're constantly distracted or disturbed and if you're going to get any emotional issues, an emotional subject you need that peace and tranquillity; so you can sit and deal with it". (IT2:141)

As well as practical barriers of working within the prison, other possible reasons for the failure to deliver sessions were explored. The training the officers received was discussed to see if they felt sufficiently trained and capable of delivering the therapy. All of the officers reported that they thought the training had been good but that it was pitched at a higher level

than they initially felt comfortable with. Anxiety about it being pitched above their heads and that the training was too broad were raised:

> *"I must admit when we went on our first day, when we were introduced to everyone, there was psychiatrists, therapists of different natures, doctors. I was thinking 'Oh my God, we're slightly out of our depth'. But once we got into it and the rationale behind the thinking of it, you know you felt fantastic" (IT3:16)*

> *"Self harm didn't actually come into it until the very end and I think we were given a paper on it, which we were desperate for because that's the reason why we where there essentially. So I think that if I did it again I'd be more inclined to look for more self harm examples". (IT3:139)*

Boundaries and problems with dual roles (therapist and officer) were raised by two of the prison officers. The same two also felt that the prison uniform acted as a barrier:

> *"I do worry that the women do find it hard to separate the therapy sessions from just seeing you on the landing. And then it's possibly, "oh I want to speak to you". "Right well you'll have to wait 'til our session". And then they go and cut". (IT1:209)*

The interviews also showed evidence that the officers were worried about the possibility of the therapy causing distress in the participants which other staff would then have to deal with:

> *Yes it's going to cause a lot of upset, or has a potential to and it's being able to put them in the right frame of mind to deal with it as well as us deal with it afterwards; and then start again next session. (IT2:68)*

All of the above factors may possibly have had an effect on the attitudes of the officers. There was possible evidence of a defeatist attitude when it came to booking appointments. When one officer was asked if she had tried to book any therapy sessions, she replied:

> *"No purely for that reason because I knew that I wasn't going to get it and I didn't want to put my subject in…that position were she was gearing herself up for something, to then be told well no it's not going to happen". (IT1:302)*

However, this could also be interpreted as concern for the effect of cancelling sessions on the participant which was also reflected in the interviews with the therapy supervisors which are described in section 4.4.2.3.

4.4.1.2 Internal therapists who delivered sessions

Interviews were carried out with two members of prison staff who successfully delivered some therapy sessions. One was a CARATS (Counselling, Assessment, Referral, Advice and Throughcare- drug treatment) worker (IT4) and the other was a prison officer. The prison officer was one of the therapists selected by the Governor and was interviewed after 6 months of failing to deliver therapy sessions (IT3). Following those initial interviews, she was the only one of the three officers who then went on to deliver therapy sessions.

As described above, the prison officers experienced considerable difficulty in getting released from their normal duties to deliver therapy sessions or attend supervision. In the second interview with the prison officer who went on to delivered sessions, these problems were still apparent:

> *"Because of the staffing situation on the Wing in particular, it was extremely difficult to try and get time off". (IT3:49)*

The other internal therapist was a CARATS worker who reported having little difficulties in scheduling therapy appointments but had a limited amount of time that she could commit to the trial each week.

> *" [it was] suggested I see 3 people a week something like that and physically you can't do it because we're just busy in our own job anyway and my Line Manager put a block on it". (IT4:253)*

Locating suitable rooms for the therapy sessions also continued to be problematic, with therapists having to "improvise". However, it was also felt that this is unavoidable working in a prison environment:

> *"When I went on to Willow House, there was a room that was available, the Craft room, just not ideal really but it was available so we used it. Here* [the wing] *was a problem but I improvised, I used that room* [the pod] *and there was a room upstairs, it was always hit and miss". (IT3:254)*

> *"I'm saying, that's not about people being awkward, that is just the fact that in prisons it's a nightmare to get interviewing space and I'm not holding that as a criticism against this study, that's just a fact of life working in a prison". (IT4:544)*

One of the internal therapists felt that the logistical problems encountered were unavoidable due to the nature of prisons:

"I mean the business of prisons is to receive people from the court and keep them in custody safely and security issues. The rest of it is really important but its peripherals, that's not the main business of a prison. So I just don't see how that's ever going to change". (IT4:524)

In terms of the therapy and supervision, both internal therapists were extremely positive. They felt that it gave them a completely new way of working and therefore a new experience which brought improved skills to their other work. This also provided enjoyment and fulfilment in their roles:

"It was a different situation, a completely different role, so I personally really enjoyed doing the sessions". (IT3:10)

"I just really, really enjoyed it and because I was an ACCT Assessor, to me it was just an add on to that and it was just, I thought I'll be able to bring so much to doing ACCT Assessments and stuff like that because I did get a lot better understanding". (IT4:610)

Both felt that the supervision was good but stated that they would have liked one-to-one rather than group supervision:

"I think one-to-one sessions because for me there was so much really to talk about, I wanted to make sure I was doing it right". (IT3:133)

"I think if the 3 of us had kept going in reality she'd have had 20 minutes each and that probably wouldn't have been enough I don't think and certainly not initially. Yeah so I think definitely at the beginning you'd need a good hour on your own really". (IT4:347)

When exploring the subject of prison officers taking on a therapeutic role, the prison officer (IT3) felt that this was feasible but had reservations about some officers' ability or willingness to take on this role:

"I don't think a lot of my colleagues would do it, they think I'm too soft with the girls, they say 'why are you talking to her?' and I say 'because I want to' you know if talking to them helps, then I'm happy to do it but a lot of my colleagues wouldn't". (IT3:284)

4.4.1.3 External therapists

Continued difficulties in organising the release of prison staff from their normal duties, led to the decision that external therapists would be brought in to deliver therapy sessions. In total,

there were four external therapists. Interviews were conducted with all of the external therapists to explore their experiences of delivering the therapy in the prison environment.

As all of the therapists were psychotherapy trainees, it was felt that they did not need to attend the full training course but were given the PIT manuals. All of the therapists reported that they were happy with their training and felt confident in delivering the therapy:

> *"The two manuals, that was really useful. Of course, the first case with the first session, it felt a bit nerve-wracking, but I think the supervision was really good". (ET4:25)*

> *"I discussed it with Clive and obviously I'd read through the manuals as well as things and I think, yeah I think I felt reasonably prepared". (ET3:16)*

All of the therapists reported that the clinical supervision was good, some preferring 1-1 and some group:

> *"I think my experience was particularly good because I was the first therapist from the doctor trainees and therefore I had a whole hour per week, which is more than what you would expect to have in supervision as a trainee". (ET1:136)*

> *"Another thing is that I had supervision on a one-to-one basis during the last couple of months, prior to then it was with two other people, so one-to-one supervision there's not much opportunity to discuss things with other people... It is helpful to have other therapists in the group and gain other people's perspectives as well". (ET2:138)*

All of the therapists felt that they benefited from their involvement delivering the therapy.

> *"its certainly different from the therapies I've done before and yes the skills required are different. Sticking to the here and now and at the same time thinking about moving on, thinking about a plan that the patient can use subsequently after the therapy". (ET2:47)*

One of the limitations with using external therapists who were trainee psychiatrists was the amount of time they could dedicate to the study due to busy work schedules. Another problem was that their availability was dependent on rotation placement. Two of the therapists experienced difficulties committing time each week to the trial and two of them reported no difficulties.

> *"I mean prior to August I was in a job that you know gave me a lot of spare time and hence it fitted in quite well […] in August my rotation changed and my current job is quite busy so I had a bit of a struggle finding time for it". (ET2:56)*

> *"I had a designated time when I was going to do the therapy and it fitted in well with my other commitments". (ET1:84)*

All of the therapists experienced missed sessions, these were generally categorised in two groups: a) personal reasons of the clients

> *"The most common reason was the prisoner not wanting to participate with the therapy, either because they didn't feel in the mood because they might not be in the mood for it or they don't think it was beneficial". (ET1:242)*

b) problems with the regime/prison environment.

> *"It wasn't often that I wasn't able to see somebody because of the prison regime. There may have been circumstances where the prisoner was locked up as punishment and they weren't allowed to go out because they were thought to be too risky, but these things are inevitable". (ET1:207)*

Consistently raised throughout the therapist interviews, the availability of suitable therapeutic rooms was considered a very important issue. When one therapists was asked about the room that they had used to deliver the sessions, they responded that it was:

> *"Not appropriate, because there's a lot of noise around, there's a lot of distractions, the room itself was messy and you struggled to fit yourself in". (ET2:285)*

The therapists were asked for their opinions on whether they thought the therapy model was suitable to be delivered by prison officers. Although they thought officers were well placed to deliver the intervention, they felt that non-specialist therapists would struggle with some aspects of the therapy.

> *"I just think that you probably do need to come through the health service or system just to understand that sort of rapport building and the risks and the boundaries and everything like that, and I think maybe most prison officers coming from a different discipline might struggle with that". (ET3:72)*

4.4.1.4 Therapy supervisors

During the course of the trial, there were 2 therapy supervisors. The first supervisor worked only with internal therapists but the second worked with both internal and external therapists. Their views on the feasibility of prison staff delivering the therapy differed to some degree but both felt that the staff involved were able to deliver the therapy model. The difficulties prison staff faced in getting time out from their normal duties also affected their ability to attend supervision sessions.

Both supervisors reported difficulties in delivering the supervision sessions. It was particularly problematic for prison officers to get released from their duties to attend.

> *"what felt like a breakdown between the support that was being offered by the prison but then ultimately not being able to do what they wanted to do as in finding it difficult to organise rooms and then actually being released from work to go and deliver the therapy" (S1:16)*

Attendance of supervision was described as erratic and at times infrequent particularly with prison staff. The supervision process worked better with external staff but there were still some difficulties with weekly attendance in some cases.

> *"I think they put a lot of time into organising a time that would be, that would work so I think it was frustrating when that got cancelled repeatedly so I think that made it hard for it to be consistent". (S2:12)*

One of the supervisors also reported that they felt the content of the supervision sessions was affected by the continued frustrations prison staff felt:

> *"part of the time what my role felt was listening to the staff's frustrations and disquiet really about not being able to see clients for lots of different reasons because I think for a lot of the time they either didn't have clients or they accepted a client and then that client was then transferred to another prison and they hadn't seen them in between the sessions" (S1:50)*

Both supervisors commented on the good therapeutic skills of some of the internal therapists. The supervisor who saw both internal and external therapists stated that both groups coped equally well with the model with no real differences in the level of supervision needed.

> *"what was striking about many of the Prison Officers was that their degree of empathy and understanding was quite strong and because the style of the model being interpersonal I think they worked with that very well. I think a few of them, I wouldn't say all of them were exceptional in that sense but I think a few of them, I don't know maybe 50%, I think had a real ability to be able to sit in a*

*room with somebody and sort of provide understanding and support and they had
a very good manner about them that was very engaging". (S2:514)*

From supervision and listening to some session tapes it was felt that all of the therapists who
delivered therapy sessions, adhered to the model of therapy:

*"I feel reasonably confident that most people tried to stick in the model and
probably more often than not they were trying to get the model right because they
were striving to get it, to stay in that model". (S2:204)*

Work commitments of the therapists were presented as the biggest barrier. The long process
of trying to get prison staff released from duties to deliver the sessions produced feelings of
frustration for both the therapists and the supervisors.

*"although managers for the non-prison officer staff were supportive there was
also a sense that this was an add-on on top of their regular work so nothing
actually changed for their regular work". (S1:288)*

As well as the logistics of being released from their duties, other factors may have influenced
the ability of prison staff to deliver and attend sessions. Supervisors considered why the
prison staff seemed to have such difficulties in actually delivering sessions or attending
supervision even when they had the apparent support of their Line Managers. Both
supervisors thought that the delays between training and delivering sessions may have
affected confidence:

*"I think the longer it went from them having the training to seeing clients the
more kind of like an anxiety/ concern was floating around really. I think if they'd
have seen people quite quickly after their training I think that anxiety would have
been squashed quite early on but I think the longer that went the harder it
became to see people". (S1:311)*

The idea that the officers may have felt they were leaving their colleagues to pick up the
extra work was also suggested:

*" it leads you to think well is it because they feel they can't leave their
colleagues although there's been assurances that the project has been supported
and that staff member has been supported to do this, do they still not feel they
can actually leave their colleagues because their colleagues are one staff
member down". (S2:338)*

There were mixed opinions as to whether the difficulties with feasibility may have had an effect on the therapy. One supervisor thought that it might and the other thought it shouldn't have an effect once the therapist and participant was in the session:

> *"I do think it's quite important because it's trying to get them to look at their relationships with others and how they can negotiate and I think if you've got an institution that's not prepared to negotiate then that makes it really difficult to get the client to work with something that's really quite rigid and quite fixed". (S1:164)*

> *"I think once they're in there and they're kind of doing the therapy as such I think then I wouldn't say that all those factors makes someone be more cut off from the therapy or less understanding or less giving or less able to make sense of a situation". (S2:163)*

Overall one of the supervisors thought that the difficulties prison staff experienced were insurmountable and that the therapy was not feasible with prison staff as therapists:

> *"I didn't think it fitted in. It just felt such a hurdle, everything felt such hard work, such a hurdle, such massive amounts of hard work going into something that still wasn't happening, if you like, in terms of therapy being given and people's desire and motivation to be involved". (S1:431)*

The supervisors experienced a lot of frustration but were disappointed by the decision to bring in external therapists although the supervisor at that time acknowledged the process worked better after the change.

> *"I suppose I felt disappointed because I wanted the Prison Officers to work, I wanted that situation to work so in that sense I was disappointed". (S2:401)*

> *I'm loathe to say it but it's worked a lot better, yeah it's worked markedly better which is a shame and frustrating but it has practicality (S2:427)*

4.4.2 Acceptability

The qualitative interviews also explored perceptions of acceptability of the therapy from the perspectives of the women prisoners, therapists and therapy supervisors.

(C= therapy completers, NC= therapy non-completers, IT= internal therapists, ET= external therapists, S=supervisors)

4.4.2.1 Therapy participants

Nine participants who completed the therapy and three participants who failed to complete the therapy were interviewed to explore their views on the acceptability of the therapy.

The majority of therapy completers felt that the therapy had helped them, with many referring to "having someone to listen" as a key factor.

> *"even if it was only just an hour, they're sitting there and listening to you for that one hour and you're getting it all off your chest, whatever, what all the crap is, what's going through your head and it does help to, you know, getting it all out". (C13:202)*

When asked how they felt it had helped, 2 key themes emerged: 1) stopping impulsive acts of self-harm and 2) providing insight and understanding of the behaviour.

> *"there's a couple of times, I've told him I did want to and like he said, if you can try and avoid it however, it will pass and yeah I've found that, and it works". (C46:66)*

> *"I'm a lot more aware of it, the reasons why I do it and what I intended to get from it, I never used to know why I did it, I just did it. But now I know why I do it I'm going to try and stay away from some of them situations". (C53:99)*

The reported effect on incidence of self-harm was mixed. Around half of the participants stated that they had noticed a reduction in number of incidents of self-harm:

> *"At first I didn't, I didn't want to carry on with it because I was getting a bit too upset but then I thought I needed to do it so I just carried on. And I have stopped self-harming, I've not self-harmed for a few weeks". (C53:38)*

However, around half stated that the therapy had had no affect on incidence of self-harm:

> *"I just feel like doing it but I don't. I don't know, I just wont, I can self-harm, if someone gave me a razor I will but no one will give me one". (C45:203)*

A couple of the women who completed the therapy also reported a reduction in suicidal thoughts due to the therapy:

> *"I think it's reduced the fact that I'm not wanting to end it all, my life, and kill myself anymore. I'm not thinking of that as much". (C50:72)*

All of the therapy completers stated that their relationship with the therapist was an important factor, with the majority saying that they had a good relationship with their therapist. The

need to "feel comfortable" was important with most stating that they would not talk to a therapist they didn't get on with.

> *"its really important isn't it because if you don't feel comfortable with that person you're not going to open up are you?". (C54:181)*

> *"Yeah I think it's very important because if I didn't get on with her, well I wouldn't have opened up and told her half of what I did tell her". (C13:397)*

The relationship with the therapist strongly affected the participants experiences of treatment and also their perceptions as to whether the therapy could help them:

> *"I think it is very important because I've seen people before, therapists and things, which I haven't meshed well with, so the therapy's no good then". (C50:130)*

> *"Nothing happened I didn't talk to him, he just asked annoying questions "What are you thinking? How are you feeling?". I didn't like him". (C45:21)*

The preference for internal prison staff therapists or external therapists was mixed, often affected by who their therapist was and the relationship they formed. Some participants also expressed concerns about the time prison officers could dedicate to them in a therapeutic role:

> *"If it was and officer that I didn't see day-to-day and maybe I'd be able to speak to that person but if its just someone that's running around on the wing, one of the officers on the wing, I wouldn't because they've got that many other things going through their head and that and they're doing that many jobs, its like they've not really got the time to sit there and focus at what you're saying really". (C53:149)*

> *"Yeah I do talk about personal stuff with them but it is quite hard sometimes, but I just think it's different. I don't think it would have worked". (C54:210)*

The number of sessions was also discussed. Only one person stated that they would have rather done less than four sessions but around half stated they would have liked more sessions and the rest, that four sessions was enough.

> *"I think it should be ongoing until you feel a time when you're okay to not have them any more". (C50:256)*

Sessions took place in three different sites depending where the participants were housed: Healthcare, the Wing or on the Houses. Participants reported good and bad experiences at all

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three sites. The main problem raised was interruptions during the sessions which they felt affected their ability to engage in the therapy:

> *"there was a lot of disruptions yeah really because there was God knows how many times we was in a room and then somebody would come in and say you cant be, you're not supposed to be in this room". (C40:203)*

Participants were asked if there were any other issues that they wanted to discuss in regards to the therapy. Some of the women raised concerns about the short duration and lack of stability they experience being in prison and how this might affect their willingness to engage in therapy:

> *"I think the only trouble with prison is you don't even know if you are going to be here next week, because you don't know if you are going to get moved on to another prison, so its hard to put trust and faith into somebody". (C46:187)*

One participant raised the concern that there was no back-up prison support for them if they became upset or down after sessions, this mirrored concerns raised by the external therapists.

> *"only because there's kind of no back-up, because he was probing in areas that were quite delicate to me and because there's no, I haven't got anyone to go and see now, you know I didn't... I wasn't happy". (C46:72)*

The three participants who failed to complete the therapy gave differing reasons for withdrawing from the trial. One of the participants stated that she found the therapy too intense and felt pressured into talking. She reported that she was no longer self-harming and that it had just been "a cry for help". She also stated that she was talking to officers for support. A second participant stated she dropped out of the study because she couldn't be bothered doing it anymore and that she felt that nothing was going to help or stop her from self-harming. The third person interviewed said that she thought the therapy was okay and that she got on with the therapist but that she was no longer self-harming. She attributed her previous self-harm to the change of coming into prison and that as she had settled in, the need to self-harm had stopped.

4.4.2.2 Therapists

All of the therapists reported that they thought the model of therapy was suitable for use in the prison environment:

"I thought the therapy model was very appropriate towards the prison setting [...] A lot of more long standing therapies might not last, might not be as easy to do and considering it was a short-term therapy, this model allowed changes to be made and therefore would be better than a traditional psychodynamic psychotherapy model". (ET1:168)

Although one person expressed concerns that using the model for such a small number of sessions meant that it was difficult to address some underlying problems:

"I had a sense that sometimes I felt it maybe wasn't asking enough detail or talking about things enough, because obviously I was aware there were only going to be four sessions so I had some concern that if something did come up I couldn't really explore that and I felt that maybe at times it either meant I compromised on sticking to the manual or that I might appear insensitive". (ET3:116)

All of the therapists, both internal and external, expressed the feeling that most women had benefited from the sessions, but that effectiveness was influenced by levels of engagement.

"I think when we talked about things during the therapy sessions and we talked about their ways of managing stress and thought about alternative ways of managing stress because of their self-harming. It makes, it enlightened them to why they are doing that and other ways to respond and there was a definite benefit which was very visible". (ET1:160)

"I don't think anyone got nothing from it but at the same time I think that level of engagement wasn't there in at least one of the cases really". (ET3:182)

There was a general feeling that the participants had taken something away from the sessions even if it was just that they had managed to form a therapeutic alliance:

"I think with a couple of them they'd said to me "you're the first person that's ever listened to me" and "you're the first person that's not let me down". So perhaps it's taught them that not everybody will let them down". (IT4:438)

All of the therapists reported that they felt 4 sessions of therapy was not enough for their clients. They suggest that some flexibility in the number of sessions given should be considered:

"I mean I did feel that the four sessions thing that was my main criticism, I felt that was probably too few really". (ET3:121)

"I think ongoing but flexible, I mean you've said I cant do anymore for this person or they're at a point now where they can cope with whatever. Yes four sessions was just, was very short". (IT3:229)

Only one therapist experienced a case where a participant stated they had had enough with just 2 sessions.

> *"the last lady that I saw, she was, she appeared quite enthusiastic, quite optimistic about the therapy but she had not had any recent episodes of self-harm, and from what I understand she felt that she had benefited enough at the end of the second session and then started defaulting from the sessions". (ET2:162)*

There was a suggestion from two of the therapists that the therapy may expose past traumas increasing the risk of further self-harm/suicide attempts. In other settings, this can be effectively managed but a lack of support services in the prison leaves these clients vulnerable.

> *"the worry as I say was that there was a lot of ground that could get exposed, a lot of traumas that there wouldn't be time to discuss either in the sessions or throughout the course of the therapy and I think the risk with that is it can make things worse before it makes things better, but that could partially improve by having the framework in the prison to pick these things up". (ET3:202)*

> *"because psychodynamics, like therapy, can increase the risk of self-harm and suicide in prison because a pure psychodynamic will increase the risk, especially in a prison setting. And you don't have that much close observation as in a hospital". (ET4:173)*

4.4.2.3 Therapy supervisors

The interviews with the supervisors focussed on the model of therapy, how it may be limited working in a prison environment and how it differed from the model used in the community.

The therapy model was deemed appropriate for the sample/environment with barriers being general to delivering any therapy not specifically PIT.

> *"So I don't actually think it's the model of therapy I actually think it's about the institution, how that functions or doesn't function". (S1:142)*

> *"yeah, it's a relational model, there's evidence for its use with self-harm, I think it's flexible enough or the way that it was set up it was flexible enough to work with different aspects that came up in the sessions" (S2:142)*

One supervisor mentioned that the lack of flexibility to negotiate relationships whilst in prison may be seen as a limiting factor.

> *"I think we might find it helpful but how helpful in the long run whilst they remain in prison I'm not too sure but I think having that space to talk about these issues and having somebody listen to them who's interested and wants to listen, I think*

was probably quite therapeutic for a client but I think I felt that working in the community and then supervising the other therapists that we were far more limited in what you could negotiate with the client to try and make those changes with really". (S1:155)

There were also other differences to the model used in the community in that each session had to be brought to a close due to the possibility of transfer before completion.

"The one thing that I suppose that stands out for me is the, um, we write a letter at the end of therapy, a sort of a formulation, good bye letter now... which is an important part of the therapy but it... it was felt that incorporating that as well as getting people to do clearly a very different role was a bit of a step too far really so that's probably the difference". (S2:176)

It was felt that participants in the study benefited from the sessions, whether just having someone to talk to or being able to form a therapeutic bond with a therapist, if not resolving some of their problems around self-harm.

"in terms of it being particularly life changing or have a significant change on someone's self harm or risk of self harm in prison I'm not so sure. But I think that those prisoners would have found that helpful and certainly listening to their audio tapes in supervision and the level of engagement and then the discussions with the non-prison officer staff, I remember thinking that that prisoner must have found that quite helpful having those sessions". (S1:122)

Both supervisors felt that there would be complications to increasing/decreasing or making the number of sessions more flexible. It was suggested that the minimum remain as 4 sessions:

"It's, I suppose if you leave it open ended it's not clear, it can make people anxious, they don't know there's an definite ending whereas it might be that if you said between four and six sessions then that might be workable for people". (S2:217)

Another issue raised by the supervisors was that cancelling sessions, as many of the internal and external therapists did at short notice, may have a negative impact on the participants and their willingness to engage.

"if your sessions get cancelled because you can't get rooms or something's happened or you can't get off the prison, off the wing, then there's going to... the impact of that is going to be to somebody it could be a sense of being let down, um, that they're not important, all of these things can re, you know can fire up sort of old patterns of you know, beliefs of who they are, they're not worth being seen, this person isn't reliable and therefore all that could have an impact on whether they make the next session or not". (S2:543)

4.5 Summary

4.5.1 Quantitative results

The comparison of demographic and risk factors between the therapy and control groups showed no significant differences indicating that randomisation had worked. Retention to the trial was poor with only around 40% completing four sessions in the therapy group and 43% in the control group. There was also a high attrition rate to follow-up and assessments were conducted with only 45% (n=29) of the sample. Rate of self-harm was the only measure that had complete data for the sample. There was evidence of a reduction in rates of self-harm (per 100 person days) in the post intervention period versus the time before intervention. However, analysis of an interaction term fitted between the treatment group and 'before and after' variables, indicated no evidence of a differential effect between therapy and control groups. There was also no evidence of a differential effect between the treatment group and any of the secondary measures. The study was not powered to test for significance. One confounding variable in regards to reduction in rates of self-harm was that there was a dramatic decline in the number of self-harm incidents which took place across the prison during the trial period (figure 12). The impact of this is discussed further in the discussion (Chapter 6).

4.5.2 Qualitative results

Issues of feasibility and acceptability were explored in interviews with therapy completers, participants who did not complete the therapy, the internal and external therapists and the therapy supervisors. Feedback from the internal therapists was supported by the supervisors and showed that prison staff had the skill and capacity to deliver PIT therapy sessions. However, the pressures of their duties and a perceived lack of support from Line Managers meant they often found it too difficult to get time away from their normal duties to deliver sessions or to attend supervision. The majority of therapy completers interviewed expressed a positive attitude to the therapy and stated that they liked it. The therapeutic relationship they built with their therapist was an important factor and most women were able to give specific examples of how they felt they had benefited from the sessions and expressed that they had felt able to engage.

CHAPTER 5: RESULTS 3- PROCESS EVALUATION

This chapter further describes the feasibility of delivering a brief psychological therapy in the prison. This relates to the 4th objective of the study:

> 4.   To assess the feasibility and acceptability of implementing the intervention in a local prison.

Over the course of the study, a number of problems or barriers to the research became apparent. As this was primarily a feasibility study, these problems were recorded along with subsequent changes made to try and address these difficulties and the outcome of these changes. These barriers are then explored in terms of their implications for a full trial.

5.1 Prison staff recruitment and retention

5.1.1 Recruitment

Posts for 'study therapists' were advertised in the prison and had to be put out several times. An official prison email was posted to the entire staff group (from administrative workers through all officer grades and healthcare). However, very few responses were received. The first time recruitment took place, only nine applications were received, of whom only six were invited to interview and five recruited (3 as therapists and 2 as control therapists). The second time the posts were advertised, six prison staff applied, only four were interviewed and three recruited (2 as therapists and 1 as control staff). Each time only the minimum number of prison staff needed applied to take part in the study. The lack of applications may have been due to: people not reading their emails, a lack of interest/support for the intervention, or concern about taking on a therapeutic role and how this role would be supported by the prison.

Changes: Following the lack of success at recruiting prison staff through advertisement, it was decided that staff would be recruited through recommendation by prison management. A senior member of prison staff was asked to refer officers that fitted our criteria, for example, those who had a good rapport with prisoners, already worked closely with self-harmers, and showed empathy towards this group.

Outcome: Three further members of prison staff were recruited to the study and trained in the therapy. This method of recruitment was more successful and all the prison staff recruited were suitable for the role. However, they faced the same barriers to delivering the therapy as the previous therapists and proved no more successful at taking on the therapist role. The reasons and implications for this are discussed further in Chapter 6, section 6.1.3.2.

5.1.2 Retention

5.1.2.1 Therapy staff

It was originally planned to recruit just three prison staff to the therapist roles. However, after the qualitative phase there were concerns raised that extra staff would need to be recruited because of high prison staff turnover. As discussed above, there were only enough suitable volunteers to recruit three people to be trained in the therapy. One therapist then left before she had seen any participants because of a career move, the second left after she had seen just one participant, due to maternity leave. As a result, there was only one therapist for nearly three months and so recruitment of participants was severely reduced whilst two more prison staff were recruited and trained. Later, the third of the original three prison staff trained in the therapy also left following a career move. The two remaining therapists left the trial due to problems with being released from their normal duties and a feeling of lack of support from Line Managers.

Changes: Staff recommended by a Governor were considered more suitable for the posts as they had shown commitment to working with women prisoners who self-harm. It was also thought they would receive more support from the prison which would help to reduce staff losses.

Outcome: Even with recommended prison staff in posts, increased input by the research group to raise awareness of the study in the prison and the active involvement of a senior Governor, the therapy sessions failed to take place (see below). The decision was made to recruit external therapists (trainee psychiatrists) to complete the study.

5.1.2.2 Control staff

Similar difficulties were faced with the control staff: one was lost to leave (no active duties in the prison) before he had seen anyone, another went on maternity leave. A further control person was recruited at the time of the second therapist recruitment but this person also dropped out of the study following concerns raised by her line manager that she was not coping with extra duties. No further volunteers applied for the control staff roles.

Changes: It was decided that the control sessions would be taken over by a member of the research team as prison staff were less interested in taking on this role as evidenced by the lack of applications during recruitment.

Outcome: Sessions were completed more successfully after the change.

5.1.3 Work commitments

The first therapists recruited (who were not prison officers) did not report difficulties in getting time away from their regular duties to work on the study. However, all of the officers involved in the trial reported problems with getting time away from their normal officer duties. Initially, this seemed to be because of a break down in communication in the prison and a lack of awareness of the project through high staff turnover and major restructuring of the manager levels. Officers' shift patterns also affected their ability to attend weekly therapy sessions. This was mainly because of night duties. When officers are on nights, they work a week of nights, followed by a weeks TOIL (time off in lieu), so it could be at least three weeks between sessions.

Changes: Attendance at prison meetings to increase awareness of the project and to show Governor support of the trial was increased. Presentations were made to staff groups of all levels to improve understanding of the study aims and to explain what was needed from the prison/prison staff to support these aims. The intended outcomes of the study were highlighted in terms of reducing self-harm and therefore the burden this places on the general staff. Prison managers suggested that the officers should plan when they were to deliver

sessions and let Detail (staff deployment team) know that they would need cover at those times in order to be released from duties. It was said that as long as Line Mangers and Detail knew in advance that someone would need to be released from their duties, then there should be no problems with the staff member getting time off from normal duties. Unfortunately, nothing could be done about shift patterns as all staff have to work some night shifts and this is unavoidable at times.

Outcomes: Even though the study became well known/accepted throughout the prison, therapy staff still reported difficulties getting away from their posts to deliver sessions. A clear procedure was put into place to book time off to do the sessions. Managers reported that the therapy staff still failed to do this, resulting in them not being able to leave their posts. Officers were also given the choice of delivering 2 sessions per week (e.g. Monday and Friday) when they knew they would be starting night shifts. Interviews were conducted with the three officers who failed to deliver therapy sessions (reported in results section 4.4.1.1) to explore obstacles to the delivery of therapy.

5.1.4 Supervision

Prison staff delivering the therapy reported ongoing difficulties attending weekly therapy supervision. Apart from the difficulties associated with getting time away from their regular duties, shift patterns meant that staff were not necessarily in the prison on the same days each week. Staff were asked to try to arrange shifts to coincide with their weekly sessions. However, this was not always possible. Prison staff also reported that as with getting time away from their regular duties to deliver therapy sessions they experienced the same difficulties in getting time to attend clinical supervision. This resulted in staff regularly missing the clinical supervision sessions.

Change: Supervision sessions were made bimonthly with the option of telephone consultations if a meeting could not be arranged. As with the process put in place for booking time away from normal duties to deliver the therapy sessions, prison staff were supposed to book this time through the Detail office.

Outcome: Prison staff continued to miss supervision appointments because of a lack of planning. They did not use the option of telephone consultations for the same reasons as organised meetings, they did not manage to arrange time away from their duties.

5.1.5 External therapists

The difficulties described above with retaining prison staff as therapists and in facilitating therapy sessions failed to be successfully rectified. Increased awareness of the trial and direct input by senior managers in the prison did not improve the internal therapy staff's ability to deliver therapy sessions.

Change: It was eventually decided that external therapists needed to be brought into the study to deliver the therapy sessions. A valuable resource of trainee psychiatrists was identified. As all of the trainees already had psychotherapy training it was decided that they did not need to attend the full five-day specialist training course. The trainees received informal training with the therapy supervisor and attended weekly supervision whilst delivering the therapy.

Outcome: Participants were seen more promptly after randomisation. More sessions were delivered and there was an increase in the number of participants who completed all four sessions. The study still experienced problems due to time commitments of the external therapists which meant that they could only attend the prison half-a-day per week. Therefore if sessions were cancelled for any reason participants had to wait a whole week for another appointment. Another difficulty was that due to staff rotations two of the external therapists had to withdraw from the study as they could no longer attend the prison every week.

5.1.6 Facilitating external staff

Due to the number of external therapists recruited to the trial it was not possible for all of them to be issued with keys to access the prison. Therefore, all external therapists had to be escorted whilst in the prison and therapy sessions arranged with the participants for them.

Change: Organisation of therapy sessions with participants and the escort of the external therapists had to be carried out by myself as the primary research assistant on the study.

Outcome: It was not possible to remain blind to randomisation as all therapy sessions had to be facilitated by myself. However, as the focus of the study was assessing feasibility and developing a trial model which could be implemented in further trials and not on demonstrating efficacy this was thought to be acceptable.

5.2 Participant recruitment and retention

5.2.1 Recruitment criteria

The original proposal stated that only women prisoners who had committed an act of self-harm within the last 2 weeks would be recruited. The purpose of this criterion was to identify women prisoners currently in crisis and therefore most in need of the therapy. During the phase 1 qualitative interviews few women fell into this group, for example, out of 50 open ACCT documents in a one month period, only eight women prisoners fit this criterion. A high number of the recorded acts of self-harm are committed by just a few women; often these 'high risk' women cannot be seen on a one-to-one basis and are transferred between prisons to 'give the staff a break' making them difficult to recruit.

Change: The period for self-harm prior to recruitment was increased to 1 month. This more than doubled the number of women prisoners eligible to take part in the study. It was felt that

women who had self-harmed within a one month period were still thought to be in crisis and therefore suitable to take part in the therapy.

Outcome: Recruitment rates improved but remained below those originally anticipated, throughout the study period. As the therapy was aimed at those currently experiencing a crisis it was decided that the time frame for self-harm should not be further extended.

5.2.2 Retention/therapy completion

The study experienced a higher rate of loss of participants than expected for the following reasons: 1) transfers to other prisons mid-sentence, 2) early release or bail following appeals, 3) transfer to outside mental health hospitals, and 4) disengagement from the therapy (see CONSORT diagram Figure 4).

Change: 1) To try and reduce the attrition rate due to transfer medical holds were put on some participants. It had previously been decided by the steering group that holds would not be put on transfers for the participants of the study. The decision not to use medical holds was reconsidered in order to improve completion rates. However, this was only considered as a last resort as it was hard to maintain holds on several women prisoners at a time. 2) In order to try and reduce attrition due to early release/bail, screening measures were increased and every effort made to ensure that those women prisoners who were likely to be released or were applying for bail were not randomised to the study. Also the prisoner management team within the prison were asked to contact myself if they became aware of any of the women prisoners we were seeing, being released or transferred. 3) Women who needed transferring to an external mental health facility were often on waiting lists for long periods of time, women who were known to be waiting were not included in the study. However, in a small number of emergency cases, women were removed to hospital at very short notice and this could not be known in advance or prepared for. 4) Therapists were asked to see participants as soon as possible after randomisation to try and reduce attrition through disengagement. Also, I tried to meet with each participant every week once the blinding procedure had been dropped in order to facilitate the external therapists.

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Outcome: Attrition rates remained high following transfers/release. Holds did not guarantee that prisoners would not be transferred and could only be placed on a prisoner for a maximum of four weeks and in almost all cases completion took a minimum of 6-8 weeks. Prisoner management staff failed to let me know when women prisoners in the study were being released prematurely. At times this was because the decision was made at the courts and the prisoner was not returned to the prison. Little could be done to prevent this and is likely to affect further trials. Although therapy staff were asked to see participants as soon as possible, this did not improve whilst internal staff were still being used. External therapists did usually see participants the week following randomisation but there were still delays in completing the therapy due to missed sessions.

5.3 Data collection

5.3.1 Outcome measures

The problems with participant retention/therapy completion meant that follow-up data collection was compromised. As we rarely had advance notice of participants being transferred or released/bailed, psychometric tests could not be completed on just over half of the sample (n=34). Rates of self-harm were recorded until participants left or withdrew consent and therefore this was the most complete data collected.

Changes: The possibility of getting advanced warning before participants leave the prison was explored. Also I contacted each participant every week to see how they were getting on and if they knew of any upcoming court dates or if they had applied for a transfer to another prison.

Outcome: We were informed that the decision of who to move is often made the same day they are transferred and if they are bailed they simply do not return from court, so it was difficult to arrange enough advanced warning to conduct exit interviews. Meeting with

participants every week whether they had a therapy session or not, helped to keep participants from disengaging but did not improve knowledge of imminent transfer or release.

5.3.2 Qualitative interviews

5.3.2.1 Interviews with general prison staff

It was originally planned to interview "10 prison staff from healthcare and discipline who have had direct contact with those receiving the intervention". Staff shifts and the number of women prisoners members of staff are dealing with everyday, meant it would be difficult to find staff with sufficient interaction with study participants to comment on changes in behaviour.

Changes: It was decided that it would be more beneficial to interview staff who have been involved with facilitating the study in the prison, such as Safer Custody staff.

5.3.2.2 Interviews with prison staff trained in the therapy

It was originally intended that all officers trained in the therapy would be interviewed at the end of the study, to get their feedback on delivery of the intervention in the prison environment. Difficulties in delivering sessions despite Line Managers offers to facilitate the time they needed for the sessions was thought to be significant (internal conflict, reluctance to let down their peers).

Change: Prison officers were interviewed to explore this aspect (for schedule see appendix 5c). They were also interviewed at the end of the trial once they had delivered sessions.

5.3.2.3 Interviews with participants who disengage

It was decided that any participants who had been randomised but refused to attend sessions before completion would be interviewed with their consent. The interviews focussed on the reasons for disengaging in relation to the acceptability of the therapy (for schedule see appendix 5b).

5.2.3.4 Interviews with therapy supervisors

Those who provided therapeutic supervision for the therapists were also interviewed to explore whether the staff recruited were considered suitable and able to deliver the therapy according to the model (for schedule see appendix 5e)

Implications for a pilot RCT: Follow-up quantitative data collection methods would need to take account of possible attrition. Consideration of whether it would be possible to follow-up participants in other prisons if they are transferred is needed. If a better method of identifying who is likely to be transferred/bailed/released could be implemented it, may allow enough time to conduct the interviews even when sessions have not been completed. However, the methods explored above did not help to increase follow-up data collection.

5.4 Other alterations

5.4.1 Control conditions

Originally described as sessions to discuss money management, it was felt that as long as the sessions did not include any kind of therapy, the content of the sessions should be flexible. In discussion, activities such as reading magazines or playing games were thought to be more interesting to participants and therefore increase retention.

5.4.2 Blinding

As the main Research Assistant, I was to remain blind to treatment arm. However, with the prison officers failing to deliver sessions and the introduction of external therapists this could not be maintained. Blinding was removed from participants 22 through to 64 (17 T2 interviews).

5.4.3 Study profile

After some time (approximately 18 months), it became evident that awareness of the study taking place in the prison had reduced. This may have been caused by a number of factors including changes in senior management and a lack of communication.

Change: The project was presented to staff groups (all grades) in a series of meetings aimed at reaching as many staff in the prison as possible. I also regularly attended Safer Prison meetings and healthcare referral meetings by In-Reach, to report on progress and to keep the trial high up on the prison agenda. A strong working relationship was built with one specific Governor with whom all difficulties/problems could be negotiated and who acted as a central contact facilitating the study within the prison.

Outcome: Awareness of the study in the prison was increased, the Governor helped to address some of the problems faced and made suggestions on how best to address these in the prison environment. Unfortunately, the increased awareness in the prison did not improve the prison staff therapists record of delivering sessions. Referrals for suitable participants started to be made by prison officers and they also helped to facilitate sessions delivered by the external therapists. Therefore, it is important that the profile of any intervention in a prison environment is maintained through presentations, posters and interaction with senior staff.

5.4.4 Data collection period extended

Data collection was extended by six months allowing recruitment to continue until December 2009. This was necessary due to the delays in recruitment caused by the attrition of prison staff taking part in the trial.

5.5 Summary

5.5.1 Barriers

Many of the problems experienced by this study were around the issue of training and utilising prison officers as therapists. There were difficulties with recruitment, retention and in supporting prison officers to deliver the therapy. Everything that could be done to try and support the officers in a therapeutic role was done. Governors were brought in to help negotiate time away from duties and a clear structure was put into place to ensure that cover would be provided by other members of staff when they needed to be released to deliver therapy sessions. Even with these measures in place there was evidence of barriers or a resistance by the trained officers to deliver the therapy sessions. Due to these problems the decision was made to bring in external therapists to deliver the therapy sessions and although this greatly increased the delivery of therapy sessions it has many resource implications which will be discussed further in Chapter 6, section 6.1.4.2.

The study also experienced difficulties with participant recruitment and retention. The number of ACCT documents open in the prison was not representative of the actual number of prisoners self-harming, showing that this system may be being misused or overused in the prison. Although efforts were made during the screening procedure to ensure women prisoners would be in the prison long enough to complete the intervention, a high proportion of the participants were transferred or released before completion. This was due in part to the length of time it took to deliver the 4 sessions of therapy and complete outcome assessments but also due to the transient nature of this population which will continue to be a barrier to the delivery of any intervention in prisons.

5.5.2 Implications for possible future randomised controlled trials

If a trial was to go ahead with prison staff as therapists, the number of therapists required would have to allow for a high staff turnover in prisons. It is recommended that the roles are

filled by referrals from senior prison staff who can identify those who would fit the criteria to be a therapist. The profile of any trial needs to be maintained within a prison setting with regular presentations given to all staff levels. Regular feedback could also make more staff feel included in the trial. Supervision sessions should be flexible, bimonthly or monthly, to allow for staff shift patterns and difficulties in being released from normal duties. However, it is probable that the prison service does not currently have the resources available to allow prison staff to effectively deliver therapeutic interventions to specific groups of prisoners. This has implications for future delivery of the therapy and the need for external staff to deliver it.

The actual figures of how many prisoners are self-harming (not just open ACCTS or number of incidents of self-harm) would need to be considered in relation to total number of participants to be recruited and the number of therapists needed for each site. Thorough screening to prevent prisoners who are likely to be released or transferred being randomised would need to be implemented. Medical holds cannot be relied upon to prevent transfers and the sample would have to allow for some unavoidable attrition. Therapy sessions would need to take place as soon as possible after randomisation and every effort made to complete the four sessions within four weeks to try and reduce attrition.

This acceptability and feasibility pilot compared the treatment group with an active control. There was no Treatment as Usual (TAU) group. It may be useful to introduce a third group to allow better comparison of results between the treatment group and the active control.

CHAPTER 6 - DISCUSSION

In this chapter, the results of the study will be considered in relation to the objectives and with reference to the literature. I will reflect on whether the research questions have been answered with consideration of the strengths and limitations of the study. The results from both the qualitative and quantitative methods will be discussed and the implications of these results will be explored.

6.1 Overview of findings in relation to the objectives

The objectives of the study were:
1. To explore 'users' views of how one local prison currently manages self-harm and how they think an intervention would work in a prison.
2. To adapt an existing community intervention for use with women who self-harm in prison.
3. To determine the ability of non-clinical prison staff to deliver a psychotherapeutic intervention.
4. To assess the feasibility and acceptability of implementing the intervention in a local prison.

6.1.1 Objective 1: Attitudes to and understanding of self-harm

The first objective, to explore staff and women prisoners' views of self-harm, took place in Phase 1. During this stage, 15 prisoners who had recently self-harmed and 15 members of prison staff were interviewed. As well as the results presented in Chapter 3, further analyses of the data were completed and published as journal articles. Prisoner and staff attitudes towards self-harm in prisoners and the implications of these attitudes on self-harm management in the prison were explored in detail and published in Criminal Behaviour and Mental Health- "Prison staff and women prisoner's views on self-harm; their implications for service delivery and development: a qualitative study" (Kenning et al, 2010) (see Appendix

6). Further analysis was also conducted to explore the issue of 'Custody versus Care' and role conflict in prison officers. "Custody vs Care: Attitudes of prison staff to self-harm in women prisoners – a qualitative study" (Short et al 2009) can be found in Appendix 7. The results of these further analyses will also be considered here.

6.1.1.1 Prisoner views on functions and causes of self-harm
Most women prisoners described self-harm as a method of coping with their emotions, also as a form of self-punishment and a way to relieve pain and frustration. Self-harm was described by the women as an impulsive act, related to intense feelings of anger, hurt and frustration. The relief experienced during acts of self-harm was often tempered by feelings of regret. When describing their most recent incident of self-harm in prison most of the women cited both imported and situational factors as precipitants with situational precipitants being most common.

The literature on the psychological functions of self-harm (as explored in Chapter 1) categorises self-harm under two headings a) Automatic functions and b) Social functions. The results of this study support those of earlier studies, which reported that automatic functions such as emotion-regulation were most commonly cited as the function for self-harm behaviours (Herpetz, 1995; Brown et al, 2002; Nock & Prinstein, 2004). In particular the three studies engaging forensic populations (Penn et al, 2003; Coid et al, 1993; Wilkins & Coid, 1991) all reported automatic functions only. However, it is possible that responses may be biased towards automatic functions which may be seen to be more socially acceptable (Nock, 2008). Women prisoners are often faced with prison staff who may or may not believe in the legitimacy of their self-harm and are aware that it is often perceived as false or manipulative behaviour. It may be that giving an automatic function as the reason for their self-harm is more likely to make prison staff perceive it as "genuine" and therefore more likely to illicit a caring response, which is actually a social function for self-harm.

As with all other studies which tested for social functions such as 'trying to affect an emotional response in others', a substantial minority of the participants in this study made reference to social functions. Only one study, Brown et al (2002), reported significant

evidence for this function of self-harm (61% of a female borderline personality disorder sample) but many other studies have reported a substantial minority (Briere & Gill, 1998). More recent studies are now reporting higher levels of social functions than previous research (Lloyd-Richardson et al, 2007). One of the difficulties that lies with interpreting self-report reasons for self-harm is that answers given by those who are self-harming may not be complete. Some evidence has shown (Lloyd-Richardson et al, 2007) that self-harm may serve several functions at once and that these may change with each incident of self-harm. As stated above, answers may also be affected by social cues and perceptions. As suggested by Nock (2008), there is an assumption that people fully comprehend their behaviour and the processes involved, when there is evidence that people who self-harm have poorer verbal fluency and difficulty expressing emotions, making self-report answers incomplete.

6.1.1.2 Prison staff views on functions and causes of self-harm

There were a number of differences between prisoner and prison staff perceptions around self-harm. Unlike the women prisoners, the majority of prison officers did not cite situational factors as causing self-harm in prison and few recognised self-harm as a coping mechanism. In comparison to the prison officers, healthcare staff cited both imported and situational factors. The prison environment and the associated stresses it caused was seen as an important influencing factor in current self-harm, in particular the feeling of disempowerment caused by being in prison.

A theme that dominated the majority of prison officers' interviews was the concept of "genuine" and "non-genuine" self-harm. Most prison officers believed that the majority of self-harm in the prison was "non-genuine" and was an attempt at manipulating the staff or prison environment. The views that "genuine" self-harmers require psychiatric help and "non-genuine" self-harmers are manipulators who do not require help, was expressed and this supports past literature (Dear et al, 2000). Only a minority of prison officers perceived the behaviour as women demonstrating that they could not cope. Although some healthcare staff also used these terms, it was emphasised that "non-genuine" self-harmers were seen as a very small minority and that their attempt to manipulate the environment was due to frustration

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and poor communication skills. Some women prisoners reported that they felt disempowered and that they self-harmed to try and influence a change in their environment. This behaviour was generally recognised by healthcare staff as a form of communication. These social functions seemed to be interpreted by some prison officers as intentional manipulation rather than as a maladaptive form of communication from women who were unable to ask for help. The definition of automatic functions fits with the prison officers' perceptions of "genuine" self-harm and the definition of social functions ties in with their views of "non-genuine" self-harm. Social functions may well be misinterpreted as manipulation or attention seeking and therefore labelled as "non-genuine" self-harm. Education on the functions of self-harm, showing that social functions are as relevant as automatic functions is needed in the prison. There was also some evidence of desensitisation to self-harming behaviours in the prison officers and possibly of a lack of motivation to help women who were not considered 'genuine' self-harmers. Officers therefore run the risk of failing to recognise prisoners who are actually high risk of suicide and of intervening in their care.

It was concluded in Kenning et al (2010) that training is needed to address prison officer attitudes to, and understanding of self-harm and to equip them with the tools to manage this behaviour. Increased understanding of self-harm by both prison staff and women prisoners who self-harm, may improve working relationships and in turn increase help seeking behaviours and willingness of women prisoners and staff to engage in effective interventions. Training is important to improve understanding of the behaviour, increase empathy and the sense of being understood by the women prisoners, which has been identified as being important to a prisoner's sense of well-being.

6.1.1.3 Staff attitudes towards women prisoners who self-harm

Healthcare staff
The results of the Phase 1 interviews as reported in Kenning et al (2010), showed positive attitudes and understanding of self-harming behaviour by prison healthcare staff. Their understanding of the causes and functions of self-harm was much better than that of the prison officers, recognising both psychological and environmental factors. Healthcare staff

generally presented positive attitudes and the women prisoners spoke positively about their care and treatment by healthcare. All of the healthcare staff reported that the prison environment and custodial role of the prison impacted on their ability to deliver effective care. As stated previously, there is no previous research into the attitudes of prison healthcare staff towards self-harm, but these results differ considerably to the results from community health care studies. Nearly all of the studies reported evidence of negative staff attitudes and stereotyping of self-harmers (McAllister, 2003; Friedman et al, 2006; Crawford et al, 2003; Patterson, Whittington & Bogg, 2007a). The contrast may be a result of different training experiences between these health professionals. Self-harm has become a big issue in prisons and so health care staff working in these institutions may be better equipped to deal with it.

Prison officers

The results of this study support the majority of the literature in regards to prison officers' understanding and attitudes towards self-harm. The attribution of motives such as manipulation and attention seeking as the main reasons for the self-harm, and failure to link this with mental distress, fits with Snow's (1997) findings, from a similar study. As explored in Kenning et al (2010) failure to recognise self-harm as evidence of mental distress may lead to negative attitudes towards people who self-harm. There was also evidence of a clear feeling amongst most prison staff that self-harm in women prisoners could be categorised as "genuine" or "non-genuine" this may be seen to support the literature which states that labelling and 'normalising language allows staff to avoid confronting the realities of self-harm (Liebling, 1992). There was some evidence of prison officer desensitisation to self-harming behaviours by the women, and possibly of a lack of motivation to help those not considered 'genuine' self-harmers.   Most staff described feelings of resentment towards those women prisoners who they considered "non-genuine" and felt that they monopolised staff time and resources. This fits with the cognitive-emotional model suggested by Pannell, Howells and Day (2003) whereby if officers typically perceive self-harm as non-serious or manipulative they are likely to experience negative emotions such as anger, leading to a reduced willingness to help.

The issue of custody versus care in prisons was further explored in Short et al (2009) (Appendix 7). The article concluded that most staff found their differing job roles complex, trying to balance their custodian skills with their welfare skills. Most reported that they felt unguided in determining what their role should be, so took on the role that they felt the most confident in, which was their security functions. Most prison officers, despite being at the forefront of managing the women who self-harmed, reported feeling untrained to do so which also led to a lack of confidence in their management and made it difficult for them to understand why the women self-harmed. In order for prison staff attitudes to change it is imperative that they receive training that encourages them to recognise the individuality of prisoners and that their responses and ways of coping within the prison environment may differ.

6.1.2 Objective 2: Adaptation of the model

The second aim of the study was to identify possible barriers to the intervention and to modify the therapy and its delivery accordingly. A review of the literature on past self-harm intervention trials was used to inform the delivery of the intervention. However, there was a noticeable lack of literature on self-harm intervention trials in prisons. Furthermore, a number of practical issues arose during the Phase 1 interviews and from the analysis of the transcripts, which needed to be considered in order to tailor the intervention to the specific needs of this population.

6.1.2.1 Methodological considerations from the literature
There is still considerable uncertainty about the effectiveness of interventions in reducing self-harm and suicide. A range of therapeutic models have been used including: Cognitive Behavioural models, Psychodynamic approaches, Problem solving, family interventions and Multimodal interventions. However, only six of the studies showed any significant reduction in repeated self-harm or or associated risk factors such as depression. Models which have demonstrated the most promising results include Dialectical Behaviour Therapy (DBT), Problem-solving skills training and Psychodynamic Interpersonal Therapy (PIT).

The methodology of this study was influenced by the limitations of the above trials. However, one factor that was not addressed was the small sample size. As this was a small scale pilot study to assess feasibility, the sample was small and the study underpowered to test for efficacy (Evans et al, 1999; Wood et al, 2001). The sample was inclusive of women who self-injured and self-poisoned unlike many studies (Guthrie et al, 2001; Hawton et al, 1987) which have focussed on specific methods of self-harm, usually self-poisoning and exclusion criteria were kept to a minimum. Also an active control was used rather than TAU to ensure the groups received similar treatment with regards to time out of cell and one-to-one attention. Any other therapeutic input by the prison service was also recorded. As with the Guthrie et al (2001) study, any participants who missed sessions were actively followed-up to ascertain the reason and try to prevent disengagement and so reduce attrition rates. Long-term or intensive interventions are generally not well accepted by patients who self-harm (Allard et al, 1992) and are particularly difficult to implement in prisons due to the transient nature of the population. Therefore it was thought that a brief intervention which actively promoted attendance and chased up individuals who missed sessions would help to reduce attrition rates. However, this was not the case in this study. The effects of these methodological considerations are explored further in section 6.2 below.

6.1.2.2 Delivering interventions in prisons

The literature on barriers to delivering interventions in prisons is sparse. However, the results of this study supported previous findings as described below. The study experienced a high rate of attrition, due in part to short sentence length or the transfer of women prisoners around the system and in part to failure to engage in treatment. Around 38% (n=24) of the sample were released or transferred before the intervention could be completed and a further seven participants (3 therapy and 4 control) disengaged during treatment. As a result, nearly half of the sample did not complete the intervention following randomisation, even though screening processes were designed to try and limit attrition. The high attrition rate experienced by this study is not unusual and is reflected in past literature. Disengagement of participants may be due to 'readiness to engage' which has been shown to have a particularly strong impact on therapy completion (Towl, 2006). In particular a study by Pellisier, Camp &

Motivans, (2003) showed that females were significantly more likely to drop out of treatment than males.

Previous research highlights a number of potential barriers to delivering interventions in prisons, all of which were also evident in this study. Firstly, the inflexible regime meant that time to deliver therapy sessions was limited to just a couple of hours in the morning and a couple of hours in the afternoon. Secondly, short sentence lengths in this prisons meant that even a brief intervention was difficult to complete. Thirdly, there was the question of readiness to engage in therapy or to undergo change in the prisoners, which has also been demonstrated in other therapy trials such as CBT and anger management (Towl, 2006). Fourthly, it may be have been more difficult to develop the patient-therapist relationship which is essential for effective therapy. This may have been due to the fact that prisons are a very close working environment and women prisoners may not be willing to work with prison staff they see in other roles or staff they see on a daily basis.

6.1.2.3 Barriers to therapy
A number of potential barriers to the delivery of an intervention in the prison were identified through the analysis of the interviews. One of the main problems identified was how the prison regime itself impacted on the support services and interventions that were normally available. Firstly, security and discipline issues were seen to affect women prisoner's access to all interventions and activities. Secondly, healthcare staff reported that logistical problems with escorting prisoners to appointments and prison wide lock-down resulted in missed sessions, with one member of healthcare stating that around half of all appointments arranged in the prison resulted in 'DNAs' (Did Not Attend), although there were no prison statistics available to support this. Thirdly, access to resources, particularly suitable rooms to deliver therapy was reported to be problematic by other services within the prison. It was thought that these barriers may be lessened if the therapists were prison officers with easy access to participants. However, some prison and healthcare staff felt that using prison officers may create a barrier to developing the therapeutic relationship. A prison officer's role is primarily disciplinary and it was thought by some prison and health care staff that prisoners may have difficulty in separating the two roles and in accepting the officers as therapists.

6.1.2.4 Exclusion criteria

The interviews with staff at the prison helped to inform the inclusion/exclusion criteria for the participants. An area highlighted as a potential problem was the length of time the women were in the prison. On average the majority of women prisoners served around six weeks in the prison, which is the minimum time that would be needed to deliver the intervention. Therefore, it was considered necessary to exclude any individuals that had less than six weeks left to serve on their tariff. As a local remand prison, it also holds a large number of remand prisoners. Remanded prisoners may only be in prison for a very short period whilst awaiting trial, they may also be granted bail through appeal making the time they are in prison unpredictable. If a potential participant was likely to be on remand for at least six weeks then they were not excluded from the study. It was discussed in the Steering Committee whether 'medical holds' (preventing prisoners being transferred if they are following a specific treatment regime) should be placed on women prisoners recruited to the trial. It was decided that as this is primarily a feasibility study, existing conditions within the prison environment should be consistent with general practice. To put medical holds on everyone who was undertaking therapy would be extremely difficult for the prison to maintain over a sustained period.

6.1.2.5 The therapy

The prison environment posed a number of practical problems to the delivery of the therapy. As participants could be transferred or released from the prison at any time, with little warning, each of the therapy sessions needed to be self-contained. Each individual therapy session therefore needed to be closed ensuring that the participants were not left in an emotional or vulnerable state as it could potentially be the last session. A prisoner returned to the Wing in such an emotional state may be at increased risk of self-harm or suicide. This was addressed in the therapists training. Another element of the therapy which was affected by its delivery in a prison environment was that of the 'goodbye letter' which is often used in PIT. The letter is a personal letter to the client from the therapist and is given to the client in the last session. *"The letter should be written in suitable language that the client will understand, and should be an accurate reflection of the therapy. It should be positive and not in any way critical of the client's behaviour. Strengths should be acknowledged, and there*

should be a clear plan for the future" (see manual pp 20, appendix 4). It was felt that this process would be difficult for therapists with no previous experience and it was therefore dropped. Another factor was that the letters may contain sensitive information discussed in sessions, which could have implications for confidentiality considerations as prisoners may not be able to keep such documents secure.

6.1.2.6 The therapists

The interviews showed that mixed views were held by the women prisoners, with regard to who in the prison they felt they could engage with as a therapist. Most women prisoners said that they could think of officers and healthcare staff that they would be willing to work with. The women prisoners indicated that it was the individual skills of the person that was most important. The gender of the staff member delivering the therapy was seen as important to the majority of the women prisoners. Most of the women prisoners expressed a preference for female staff members as they found them easier to talk to. For this reason, on recruitment, participants were asked if they had a preference as to the gender of the therapist they were to be assigned to and this was factored in to their allocation to a suitable therapist.

6.1.2.7 Practicalities

Healthcare staff reported that a large number of patients failed to attend appointments because of movement difficulties (many prisoners need to be escorted round the prison). To reduce the number of women prisoners missing sessions due to logistical problems, therapists were advised to ensure that prison officers knew when a woman prisoner was due to have therapy sessions and to ensure that either 'free-flow' passes (allowing low-risk prisoners to walk around the prison without an escort) were completed or an escort arranged. One advantage of having prison officers delivering the therapy meant that they could escort prisoners to sessions themselves.

The lack of resources in the prison meant that there were very few rooms which were considered suitable for therapy and these were in constant use. The availability of rooms in general was severely limited in the prison and none could be dedicated for the sole use of this study. Therefore, sessions had to take place in any available rooms. As a result, it was

decided that therapy sessions could take place on the Wing or Unit in which the prisoner was housed as long as an appropriate, private room (not in a cell or dormitory) could be found. It was also thought that this may help to alleviate difficulties with escorting participants to different units for sessions.

Prison officers work on a shift rotation basis which means all officers must rotate on night shifts, after which they receive a weeks TOIL (time off in lieu). Even when prison staff are detailed to a day shift pattern, they may not be in on the same days each week. Therefore, session dates and times had to be flexible rather than on the same day and at the same time each week as stated in the PIT manual (Appendix 4). Another consideration was the potential for high rates of disengagement. As in the Guthrie et al (2001) study, if a participant missed a session, therapists were asked to contact the individual to ascertain the reason and to rearrange the session. If there was no specific reason for missing the session, after three misses in a row, the participant was considered to have withdrawn from the study. All of the above changes were made before the trial phase began.

6.1.3 Objective 3: Ability of non-specialist prison staff to deliver the therapy.

The third objective was primarily addressed in the process evaluation and Phase 4 interviews with the internal therapists and therapy supervisors. The sections below look at the barriers prison staff faced in delivering the therapy and their overall ability to adhere to the model.

6.1.3.1 Work commitments

The first therapists recruited (who were not prison officers) did not report difficulties in getting time away from their regular duties to work on the study. However, all of the officers involved in the trial reported problems with being released from their normal officer duties. It was initially thought that this was due to a breakdown in communication and a lack of awareness of the project in the prison. An important factor was officer's shift patterns which affected their ability to attend weekly therapy sessions and clinical supervision. To try and address this, attendance at prison meetings to raise awareness of the project and to show

Governor support of the trial was increased. Presentations were also made to staff groups to improve understanding of the study. The difficulties experienced by the therapy staff were discussed with a Governor who confirmed that as long as Line Managers and Detail (the department that deals with staff rotas and cover when an area is short-staffed) knew in advance that someone would need to be released from their duties, then there should be no problems with the staff member getting time off from normal duties. However, nothing could be done about shift patterns as all staff have to work some night shifts. These factors also impacted on clinical supervision resulting in sessions being infrequent. Clinical supervision was particularly important as the therapists were non-specialist staff, to ensure they understood and adhered to the model of therapy and that participants received appropriate and effective care. Even though the study became well known/accepted throughout the prison, prison officers still reported difficulties getting away from their posts to deliver sessions. A clear procedure was put into place to book time off to do the sessions. Managers reported that the therapy staff still failed to do this, resulting in them not being able to leave their posts. Both Governor support and the active involvement of the study team did not reduce this problem. Theories on why the officers seemed to be reluctant to delivery therapy sessions were: that delays between training and delivering sessions may have affected confidence and that officers may have felt they were leaving their colleagues to pick up the extra work.

6.1.3.2 Therapeutic ability

Although there were many logistical difficulties in getting prison staff released to deliver therapy sessions, three were able to deliver some sessions. The phase 4 interviews conducted with these therapists, showed that they were generally positive about the therapy and that they felt they had benefited from the experience. They reported that although they had been apprehensive to begin with, after delivering a few sessions and then taking those experiences back to the clinical supervisors, they had felt both confident and capable of delivering the therapy. This was supported in the interviews with the two therapy supervisors who commented that the quality of therapy the prison staff delivered was good and that they thought they displayed a proficient understanding of the model. The tape recordings of the therapy sessions showed that the prison staff had adhered to the therapy model and that they

had engaged well with the women prisoners assigned to them. The supervisor who saw both internal and external staff stated that there was little difference in the level or content of the supervision needed between the therapists. The women prisoners who were seen by internal therapists also supported the view that a good therapeutic relationship had been formed and that they had engaged in the therapy.

The high turnover of therapists in the study resulted in a change in recruitment methods. Five members of prison staff who volunteered to take part in the study, were trained in the therapy but left after short periods of time (as described in Chapter 2, section 2.5.1). A change in recruitment method was therefore suggested. Rather than asking prison staff to volunteer to take part, a prison governor was asked to identify and recruit staff who they thought would be willing and able to fulfil the role of therapist. As well as identifying staff that were known for their ability and interest in this area, it was also thought that by bringing prison management into the process it would increase management support of the therapists. Using this method, three more prison officers were successfully recruited and trained in the therapy. Unfortunately, these officers presented with the same difficulties as the previous therapists and management involvement did little to improve the situation. This led me to the conclusion that there may be factors other than practical issues that were acting as a barrier to officer participation in the study. The issue of conflict between custody and care in prison officers as described in Short et al (2009) seemed to have a significant impact on officers' ability to effectively deliver therapy sessions. Barriers were not only due to the prison environment and its constraints, but also likely to have been derived from the ethos of prison officers' working practice which stems from a disciplinary rather than a therapeutic model. Exploration of the reasons why officers did not feel able to leave their duties even when cover had been assured would be important if prison officers were considered in the future for the delivery interventions. This is likely to have implications for the training and resourcing of prison staff and officers would need adequate support to take on such a combined role. However, the study provides evidence that officers are willing and able in some degree to engage in a therapeutic role.

There was clear evidence from the prison staff who delivered sessions that prison staff were able to take on a therapeutic role, working with women prisoners who self-harm. Unfortunately, the prison did not have the resources available to employ just a few members of staff in this role. Limited resources, particularly with regards to staff levels meant that even with Governor support it was not feasible for prison staff to be released from their normal duties on a regular basis. Therefore, it was decided after much deliberation to bring in external therapists to complete the trial.

6.1.4 Objective 4: Feasibility and acceptability

The fourth objective, to assess the feasibility and acceptability of delivering the therapy was addressed in the pilot trial and Phase 4 interviews. Overall, due to the range of obstacles related to working in the prison environment, the study found the intervention to be acceptable but not feasible in its current form.

6.1.4.1 Acceptability

Assessing acceptability of the therapy with the women prisoners was a primary aim of the study. The majority of therapy completers who were interviewed expressed a positive attitude to the therapy. The therapeutic relationship they built with their therapist was an important factor and most women were able to give specific examples of how they felt they had benefited from the sessions and expressed that they had felt able to engage with the therapy. The main problems cited by the women prisoners were: the lack of appropriate rooms which led to interruptions during sessions and the limited number of sessions available. Self-reported effect on incidence of self-harm was mixed with nearly half saying there was no change and half that there was a reduction, only one participant reported that they thought it had increased their likelihood to self-harm.

At the time of recruitment, all participants were considered able to engage in therapy. However, for three participants, their condition deteriorated after recruitment but before they had begun treatment and they were subsequently transferred to an outside hospital. There

was a further participant whose condition deteriorated, specifically in relation to rate of self-harm. However, this deterioration occurred two months after she had completed the therapy and was by then already receiving treatment from In-Reach mental health services. Participants were followed-up until they left the prison or until the end of the study and no other women who received the therapy displayed a noticeable increase in self-harm behaviours during this period.

Level of risk for violence was constantly monitored for change whilst a participant was active in the trial, this was done in consultation with staff working on the unit. Participants with a high level of risk were by prison rules, unable to work one-to-one with any member of staff, therefore they could not be admitted into the trial at that time. Unavoidably, risk factors did change for some over time and participants who were initially assessed as low risk of violence to others became an increased risk and were no longer able to see the therapist on a one-to-one basis, this happened in 3 cases. In one case the level of risk was again reduced and the therapist was able to continue seeing the participant but there was a delay of 3 weeks mid therapy. There were no adverse incidents during the trial and all therapist, both internal staff and external, reported that they had felt safe during sessions.

6.1.4.2 Feasibility
The aim of using a short-duration intervention (4 sessions) was to increase completion of therapy in participants. In total, 27 out of the 32 (84%) participants allocated to the therapy condition received at least one therapy session but only 13 completed the full four sessions. The main reason for the low completion rate was transfers within the prison estate or unanticipated release of prisoners which is unavoidable working in prisons and was raised as major problem for healthcare staff in the Phase 1 interviews.

Efforts were made to compensate for prison officers difficulties in delivering therapy sessions such as introducing flexibility in the day/time sessions took place, and where sessions were held. Unfortunately, these changes may have had an effect on the therapy. Flexibility in the day/time sessions took place, intended to make it easier for prison staff to deliver the therapy, meant that sessions were not always weekly and in fact on average it took

nearly twice as long to complete 4 sessions than the 4 weeks anticipated (mean 57 days, SD 20.1). This in turn affected attrition rates due to transfers as the average time in the prison was 47 days in the general population. Delays between sessions may also have increased disengagement. The decision to hold sessions in any available room may also have affected the therapy. The decision was led by the lack of resources in the prison as there were no rooms which fit the criteria for a suitable therapeutic environment. The manual states that "it is important to establish that the sessions will not be interrupted, and that the person feels comfortable and safe" (PIT manual pp 4). Unfortunately, we were unable to ensure this and many participants reported that their sessions had been interrupted. These modifications to the delivery of the therapy may well have had a negative effect on both participant engagement and on the formation of the therapeutic alliance, necessary for the therapy. In hind-sight, this modification increased attrition rates and would therefore not be recommended. Adhering to the original therapy model that states that sessions should be delivered weekly, preferably on the same day and at the same time, would be recommended.

The use of non-specialist prison staff to deliver the therapy was not feasible and external therapists had to be brought in to complete the study. By introducing this change a number of other barriers were removed and the need for flexibility in the delivery of sessions was reduced. Dedicated external therapists improved the feasibility of the study and would therefore suggest that future studies also used external therapists. The advantages of using external therapists was that they had dedicated time each week to attend the prison and deliver the therapy. Their time is generally protected and therefore sessions should be regular whereas prison staff may be called away to attend to other duties at the last minute. Specialist staff also have greater knowledge and experience of delivering therapies. However, one of the main reasons that the original study design included the use of existing prison staff to deliver the therapy was the lack of healthcare resources in the prison. The use of external therapists raises a number of new feasibility issues. Firstly, a suitable source of therapists would need to be identified, which leads to further considerations of costs, and where funding would come from for this service. Secondly, how would these therapists be managed (externally and in the prison) and who would provide supervision for them. Thirdly, how would they be incorporated into the existing prison services for referrals, feedback, and to

prevent professional isolation. If this was to be considered, further pilot testing would be needed with this new model of delivery.

Managing the rate of recruitment was complex, being reliant on the availability of therapy and control staff and also the number of suitable candidates. This was particularly evident in the early stages when trying to work with prison staff to deliver both the therapy and the control. Recruitment was dictated by the availability of staff to deliver sessions and there were several times when there was just one control staff or one member of therapy staff working on the trial. Also the time taken to complete 4 sessions, or however many was possible before a participant was transferred/dropped out, varied considerably from case to case. There would be times when participants in one arm of the trial could be recruited and seen but there was no-one to see those randomised to the other arm of the trial. Once the control arm was taken over by research staff, this became more manageable but still problematic. Another factor in the rate of recruitment was the number of suitable candidates for the trial. At times, there were many women prisoners who were suitable candidates but there were no therapy or control staff available to deliver sessions. As described in chapter 4 results, the number of self-harm incidents and in fact the number of women prisoners self-harming began to fall quite significantly from September 2009. Added to the increase in the number of women prisoners involved in the trial (with external therapists) there were very few women who fitted our criteria and had not already been involved in the trial. Therefore, there were times when there were many women prisoners who fitted the criteria and were willing to take part in the trial but therapy and control staff were not available to see them and times when staff were available but there was a lack of suitable candidates.

As described in the PIT manual, it is essential, with the participants consent, for therapists to audio tape all sessions to be used for clinical supervision and also to ensure fidelity to the model. All participants were advised that sessions would be audio taped at the recruitment phase and were asked for their consent. However, some participants (4) refused to allow the tape recorder into the sessions once they had begun the therapy. There were also difficulties reported by the therapy staff in working the machines, gaining access to them (they had to be kept securely by the Security staff in the prison and collected immediately prior to therapy

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sessions and returned immediately after) and in the recorders becoming damaged and failing to record properly. In total only 37 therapy sessions were recorded out of a potential 80 PIT sessions that took place, making it difficult to test for consistency and fidelity. The need to addresses this would be particularly important in a full-scale trial so that independent fidelity ratings could be made.

6.2 Outcomes

Here the outcomes in relation to the sample demographic and risk factors will be compared with samples from the literature. Although not a specific aim of the study, as it was know that the sample size was too small to achieve significance, the effects of the therapy and control conditions were measured and will be discussed here.

6.2.1 Sample characteristics

6.2.1.1 Methods of self-harm
Self-harm can be divided into two main categories of behaviour: self-injury and self-poisoning. Research carried out in the community suggests that of those cases presenting to hospital A&E departments, the majority were incidents of self-poisoning (Horrocks et al, 2003; Lilley et al, 2008). Restrictions in availability of methods for self-harm in prisons means that self-injury, in particular cutting, is the most common method used (Howard League, 2005). This was also evident in this study, where around 60-70% of self-harm incidents each month involved cutting and around 30% ligaturing, other methods such as self-poisoning were rare, at around 1%. Data was not collected on previous method of self-harm for those who had a history of self-harm in the community but it would be interesting to see if prisoner's methods of self-harm changed with restrictions in availability of method. Where self-harmers in the community may use self-poisoning as the primary method of self-harm, limited availability of these drugs in the prison, may cause prisoners to change their primary method. Therefore it is not clear if prisoners change their method of self-harm or if they are people who are not picked up in community studies where self-poisoners are more

readily identifiable. However, as described previously, method of self-harm tends to be flexible (Lloyd-Richardson et al, 2007; Horrocks et al, 2003) and therefore they may have a history of both self-injury and self-poisoning in the community

Most of the self-harm in prisons is self-injury and there is a lack of research exploring efficacy of interventions on this method of self-harm. Most research focuses on self-poisoning, as in the community this is the most accessible group (most samples are collected from hospital A&E departments and people who have self-poisoned are more likely to need emergency care than those who self-injure). It is therefore suggested that prison populations are an ideal forum to test treatment efficacy in those who self-injure. Also many previous studies have linked risk to method and frequency of self-harm. It would be interesting to test this theory on prison populations where out of necessity they may have had to change their method of self-harm. Any future studies may wish to collect data on differences in community and custody self-harm in forensic populations to try and identify changes in behaviour and the effects of this on suicide risk.

6.2.1.2 Demographic characteristics

Sociological factors such as young age, being female, a lack of social support and having been in Local Authority Care have been shown to be significant factors in subsequent self-harm (Meltzer et al, 2002). In the current study, just over 40% of the sample were aged 21 years or under, 45% of the sample reported that they had been placed into Local Authority care as children and 33% reported a history of parental neglect. The majority of the sample 86% (n=55) were single and 47% (n=30) had children. Contrary to the Corston report (2007) which commented that only a very small number of children were being looked after by other family members whilst the mother was in prison, this study found that about half (52%, n=15) were currently reported to be in the care of a family member.

There were no statistical differences in the demographic characteristics of the therapy and control groups which may indicate that randomisation worked. The only exception was for education level. A comparison of the age participants left school showed that more women in

the control group left school before 16 years of age (p=0.02). However, this chance imbalance in the groups is not unexpected in such a small sample.

6.2.1.3 Risk factors for self-harm

Many previous studies have linked a number of risk factors or life events to later self-harming behaviours (Gratz, 2003; Dubo et al, 1997; Haw & Hawton, 2008). In the current study, self-report information on risk factors was taken during baseline assessments in the form of yes/no tick boxes. There were no significant differences in the presence or absence of baseline risk factors in the therapy and control groups. The results showed high levels of sexual abuse 77% (n=49). However, childhood sexual abuse was not distinguished from adult sexual abuse. High levels of domestic violence (64%, n=41) were also reported, which is comparable with the 50% reported in the Corston Review (2007). Most previous research has focussed on the effects of childhood sexual abuse on self-harm and there is strong supporting evidence for a relationship (Boudewyn & Liem, 1995; Zlotnick et al, 1996). Past contact with community psychiatric services was reported by 70% (n=45) of our sample. Many studies have looked at the link between mental illness and self-harm and strong evidence has been provided for a relationship with both psychiatric and personality disorders (Haw et al, 2001; Joiner et al, 2005). Previous studies have also shown that rates of mental illness are particularly high in women prisoners in comparison to male prisoners and the general population (Singleton et al, 1998; Maden, 1996).

It was not possible to measure all of the possible risk factors as reported in the literature as this would form a research study in itself. Although of interest and it would be of use to have data on all of these risk factors in a female prison population, it was not within the scope of this study. To adequately screen for mental illness would require a lengthy interview as prison records were not reliable enough to use (records were incomplete and there was rarely confirmation from external sources on prisoners' psychiatric histories). Other areas that have been researched with regard to risk factors for self-harm are, negative life events (Haw & Hawton 2008; Milnes et al, 2002) and psychological factors such as impulsiveness and poor problem-solving ability (Milnes et al, 2002; Murphy et al, 2007). Again these were not covered within the scope of this study as interview fatigue was of particular concern with this

population. It was also felt by the research team that as it was not an aim of the research to explore risk factors and as they were being measured only to provide a description of the sample for comparison, the assessments should be kept to a minimum.

6.2.2 Primary outcomes

The primary outcome measure was rate of self-harm. This was chosen as the primary outcome because the overall aim of the intervention was to reduce self-harm and also because it was likely to be the most complete data as it was taken primarily from the ACCT records and did not rely on the follow-up assessments.

There was evidence of a reduction in rates of self-harm pre-and post-intervention in both treatment groups. The reduction in rates of self-harm were highly significant in the therapy group (p<0.001) and also in the control group (p<0.001). However, analysis of an interaction term fitted between the treatment group and 'before and after' variables, indicated no evidence of a differential effect between therapy and control groups (Incidence Rate Ratio, IRR, 0.99, p=0.997, 95% CI 0.6-1.6).   During the study period there was a dramatic decrease in recorded self-harm across the prison (see figure 12). Rates of self-harm in the prison were extremely high when the study began. However, when the study began incidences of self-harm were poorly reported and collated. When the data began to be collated and presented monthly at the Safer Prisons meeting it became evident that the number of self-harm incidents and the number of people self-harming in the prison were reducing. In 2008, there were 2013 incidents of self-harm with an average rate of around 168 incidents per month, in 2009 the number of incidents dropped to 1440, an average rate of 120 incidents per month. There was also evidence that the numbers were continuing to drop in 2010.

It is not clear exactly what caused this reduction but we may speculate that it was a combination of possible factors. Firstly, Government initiatives may have focussed staff on the needs of women prisoners who self-harm. After the Corston review in 2007, a number of initiatives were introduced in to prisons to try and reduce self-harm and suicide. Chief among these has been the restructuring of the Safer Custody team within the prison, including

recruiting a dedicated team, implementation of regular meetings to review self-harm in the prison, increased awareness of self-harm, and improved monitoring and management of prisoners on ACCT. Secondly, there have been changes in the regime at the prison with more focus placed on getting prisoners out of their cells and into activities. Thirdly, a change in the population, such as a reduction in the number of prisoners described as 'prolific self-harmers' may have had a considerable effect on rates of self-harm in the prison. Another factor may have been the effect of the research as every effort was made to advertise the study to all prison staff. Feedback from the study along with regular attendance at prison meetings will have raised awareness of self-harm and the potential for therapeutic interventions. As well as interacting on a daily basis with Wing and House officers, eight key members of prison staff were recruited and received specialist training and supervision in the therapy. This covered a range of aspects related to self-harm and its management and is likely to have had a positive effect on the capacity of individual staff and may also have influenced their colleagues. This phenomenon is known as the Hawthorn Effect, where individuals change their behaviour due to the attention they are receiving from researchers rather than because of any manipulation of independent variables (Franke & Kaul, 1978).

6.2.3 Secondary outcomes

A number of psychometric assessments were administered to measure risk factors related to self-harm and suicide risk. There was evidence of a statistically significant reduction between baseline and follow-up in depression scores (BDI) for both the therapy and control groups ($p<0.05$ and $p<0.001$ respectively). There was reduction in suicide intent (BSIS) pre- and post-intervention in both groups, which was significant in the therapy group ($p<0.05$) but not significant in the control group ($p=0.205$). There were no significant differences in either hopelessness (BHS) or the measure of interpersonal skills (IIP) pre-and post-intervention. When a Linear Regression model was applied there was no evidence of a differential effect between the therapy and control groups. Again this shows that the therapy and control conditions were equally as effective or ineffective.

Control participants scored slightly better on the depression (BDI), hopelessness (BHS) and problem-solving (IIP) outcome measures, although this was not statistically significant. In consideration, improvement in these measures in the control group may have been due to the fact that the control sessions provided the participants with time away from their usual routines and included dedicated one-to-one attention from concerned staff, it also gave them extra activities to do without discussing any potentially distressing topics. It is suggested that this could have had a positive effect on self-esteem, improving moods and providing validation for these women prisoners. This is likely to lead to improvement in depressive symptoms and hopelessness and may therefore have an impact on rates of self-harm. However, as they were not receiving therapy or working through underlying issues of their self-harming behaviours, there was less impact on rates of self-harm and on suicidal intentions. In hind-sight and as a result of the evidence that participants in the control group also showed improvement on the psychometric tests and a reduction in the rate of self-harm, interviews should have been conducted with control participants. The aim of the interviews would be to see what they thought of the control intervention and to explore how they had felt that it had helped them.

6.2.4 Interpreting the results

Interpreting these results is problematic. This is partly due to the fact that the study was underpowered. As this project was funded as a small-scale pilot study to assess feasibility and acceptability, only a small sample was used. One consequence of the low power is that even though there were some statistically significant results, these had wide confidence intervals indicating considerable uncertainty. Another factor was that the study suffered from high rates of attrition post-randomisation which clearly produces bias at follow-up, the direction of which is unknown. However, the greatest difficulty lies with interpreting these results in light of the reduction in self-harm across the prison during the study period. The implications of this are that it becomes almost impossible to assess the impact of an intervention for self-harm in this population. The intervention would have to have a huge effect size to detect any significant reduction in comparison to a) the control and b) the general population. Therefore, even though the results of this study do not show significance,

it does not mean that there is an absence of evidence for the intervention. Altman and Bland (1995) wrote a paper on the misinterpretation of trial results which appear non-significant. The authors state that researchers often wrongly imply that non-significant results show that there was no treatment effect when really it just shows an absence of evidence of a difference in effect. The main reason for the absence of evidence is inadequate sample sizes but a population wide reduction in the outcome being measured could also affect the significance of any results.

6.3 The research questions

The research questions were:

1, What are the perceived needs of women self-harmers in prison in relation to an intervention for self-harm?

2, Can a self-harm intervention be successfully implemented in a prison environment by prison staff?

The above section considers the results of the study in terms of addressing the objectives and as described, the study met these aims. The research questions were also answered by the study. In order to address the first research question, a qualitative study was conducted to explore 'users' views of self-harm and how it was currently being managed in the prison. A pragmatic pilot randomised controlled trial was conducted in order to address the second question.

The first question asked: What are the perceived needs of women self-harmers in prison in relation to an intervention for self-harm? A formal 'needs' assessment was not conducted but the views of the women prisoners in relation to self-harm, its management within the prison and how they thought an intervention for self-harm might work in a prison were explored. The Phase 1 interviews provided insight into the understanding of and attitudes towards self-harm by different groups within the prison. The interviews identified that a short duration talking therapy would probably be the most effective intervention. Most women prisoners felt that they would be able to engage with this and that they would be able to work with existing

prison staff in a therapeutic relationship. However, these were perceptions of need according to the participants who were interviewed. Prisoners and prison staff were asked about what they thought prisoners who self-harm need in order to help reduce this behaviour whilst in that particular prison, this may not represent true 'need' or be applicable to other prisons.

The second question was: Can a self-harm intervention be successfully implemented in a prison environment by prison staff? The results of the pilot trial showed that although the intervention was seen as acceptable by both the prisoners and the prison staff, it was not feasible to deliver it as originally envisaged. The study showed that with training the prison staff selected, were able and to some degree willing to engage with prisoners in a therapeutic role. However, the prison as it stands is not currently able to support this role. Logistical problems in getting staff released from their normal duties on a regular basis proved to be unworkable at the present time. The trial continued by bringing in external trainee psychiatrists.

6.4 Strengths and limitations of the research

The greatest strength of this research is the fact that it is novel. There have been no other studies of which I am aware, that have examined the feasibility of training prison staff to deliver a therapeutic intervention for self-harm, or which explore the modifications needed to transfer an existing self-harm intervention into a prison environment and that then assess the feasibility of the modified intervention. Although there were many barriers and it was not possible to implement the intervention as originally designed, the study has provided substantial information on why it did not work and suggested how an alternative trial might be designed to overcome these barriers. The results are not limited to the delivery of Psychodynamic Inter-Personal Therapy (PIT) in a prison setting and could therefore be applied to other therapy trials in similar environments.

Purposive sampling was used to ensure that a wide range of views was represented. Reliability of findings was enhanced by the fact that individual coding of the transcripts was completed by four members of the team, each from a different professional background, and

discussed in the research group, leading to consensus of emerging themes (Henwood and Pidgeon, 1992). The reliance on volunteers may have introduced "volunteer bias" in that those participants in a population who volunteer to participate in trials may be very different from those in the same population who refuse (Bland, 2000). However, as we did not collect information on demographic and risk factors for those prisoners who refused participation, we do not know how they differed to our sample. The need to change from internal to external therapists half way through the study may have had an effect on some of the outcomes, such as engagement with the therapist and a lack of consistency within the trial. However, the change was affective and a new resource, trainee psychiatrists who need experience and supervision to fulfil their training, was identified. Future studies may benefit from collaborating with this group.

The active control used in this study has been both a strength and a limitation. We decided to use uniform conditions for the control to better assess impact of the therapy. However, the control group also showed improvement on all measures. It is therefore suggested that using three conditions in any further trials could help to identify key factors of what aspects of an intervention work, whether it is the therapy, dedicated time one-to-one with a member of staff (attention) or just the process of being involved in a trial.

The Women Offender's Repeated Self-Harm Intervention Pilot (WORSHIP) study was designed as an acceptability and feasibility study. Therefore, the number of participants was limited and the sample came from only one local remand prison, so the results may not be generalisable to the whole of the UK women's prison estate. As the project manager and main research assistant, I was involved with all aspects of the study including: recruitment and screening of participants, collection of baseline and follow-up data, conducting some of the phase 1 and most of the phase 4 qualitative interviews, delivering control sessions and liaising with prison management. Therefore, there was the potential for bias in the research. As the aim was not to test efficacy but to focus on developing a model for a full trial, based on the barriers we encountered in delivering a small pilot trial, it was thought that this was acceptable. However, being involved in all aspects of the study meant that there was continuity of a link person from the research group throughout the study, which was

important to develop a profile within the prison. This became more important as several of the prison Governors who had strongly supported the research were replaced within the study period and therefore fresh relationships had to be developed with new senior members of staff.

The psychometric measures used in the study may not be sensitive enough to detect changes in such a short time period (between 4-8 weeks). As there was no long term follow-up the measures were administered immediately before and after the intervention sessions. With such a short follow-up period, it is possible that participants could remember some of their answers from the baseline interview. Also psychotherapy can produce deterioration in a patient's condition in the short-term whilst sensitive issues are being discussed. The prison environment itself may also affect changes on the measures as they were not specifically designed for use with women prisoners and no assessment of how reliable the tools are in this population, have been conducted.

The psychometric tests were delivered before and after the treatment period. However, due to the difficulties described in getting prison staff released from their duties and bringing in external therapists, treatment allocation became un-blinded. This occurred mid-way through the trial and in total, 17 follow-up interviews were conducted where I was aware of the treatment arm for the participant. Unfortunately, as the only researcher active in the prison, this was unavoidable. This could potentially affect the validity of the results and if this was a full-scale trial testing the efficacy of the therapy, then the results could be considered subject to bias. As the primary objective was a feasibility study and there was no potential for significance in the outcome measures the results are still valid.

Perhaps the greatest confounder to this study was the reduction in self-harm across the prison during the research period. As discussed previously, it is almost impossible to assess the efficacy of the intervention when there is such a dramatic change in the rates of self-harm across the population. Unfortunately, conducting research over prolonged periods in institutions such as prisons, there are likely to be changes in the population, environment, internal and government policies. The system is constantly changing and as with this study

which began in a prison with high rates of self-harm, where the need for intervention was urgently needed, the need may reduce over time.

6.5 Implications

6.5.1 Policy

The results of this study show the difficulties associated with trying to introduce a therapeutic environment into a prison environment. As commented on in the Corston Review (2007) many women prisoners are serving short sentences for minor offences. This in turn causes chaos and disruption to theirs and their families lives without any realistic chance of addressing their multiple needs in terms of mental health, addiction or criminality. The Corston Review (2007) furthers that prison may not be the right place to address behaviours which stem from deep-rooted long-term complex life experiences. However, as the current system stands, this is likely to be the only opportunity they have to access such specialist services.

6.5.2 Practice development

At the time this study began, there was a need for interventions which reduce self-harm by women in prison. The marked reduction in rates of self-harm across the prison may indicate that the current prison policy and guidelines are working to reduce rates of self-harm. However, we do not know if this reduction is at a local or national level or if the reduction is temporary and the prison will again see a rise in rates of self-harm. It is possible that the decline in rates of self-harm was the result of the release or transfer of a number of 'prolific' self-harmers who were self-harming on a daily basis and who may have skewed the data. Further research is needed to explore these factors and to identify the causes for the reduction, and if only at a local level, to try to replicate the results in other prisons.

6.5.3 The prison service

As this study was conducted in just one prison, we do not know how generalisable the results are to other prisons. The barriers faced by this intervention are likely to be similar in other women's prisons but the lack of literature in this area does not allow me to compare the

results. Lack of understanding of self-harm behaviours by prison staff creates a barrier to interventions and may contribute to lack of empathy for this group. Training is needed not only to address prison officer attitudes to, and understanding of, self-harm but also to equip them with the tools to manage it. There was evidence of prison officers misinterpreting social functions of self-harm as "non-genuine" self-harm and in turn seeing intervention in this behaviour as "time-wasting". Increased understanding of self-harm by both prison staff and women prisoners who self-harm, may improve working relationships and in turn increase more appropriate help seeking behaviours and more effective use of treatments. Officers need to be aware of how their reactions to an individual who self-harms may impact on that prisoner and as a result affect their self-harming behaviour. In this study it was only possible to train prison staff directly involved with the trial phase. However, education of staff is needed on a much wider scale to facilitate any changes within the current system. Prison healthcare staff' understanding and attitudes to self-harm were positive and differed to those studies which investigated health professionals attitudes in the community. Closer working conditions between healthcare and discipline staff could therefore be used to improve attitudes across the prison.

6.5.4 Health and social care

Women prisoners are a particularly high risk group for self-harm and suicide. There is evidence that there are high rates of co-morbid risk factors for self-harm. At the time this research was conducted, the prison system was failing to meet the needs of this population. Although prison health care staff are sympathetic and have a good understanding of the causes and functions of self-harm in this population, they do not have the resources to provide positive interventions for these prisoners and focus only on those with a diagnosed mental illness.

6.5.5 Research

There are currently a number of other interventions for self-harm being implemented in some women's prisons (section 1.5.6) but they have produced no research outcomes to date. These interventions have been implemented based on community therapies and are now retrospectively assessing outcomes. It will be interesting to see if they faced any of the

barriers identified in this study and to see if they are effective and cost-effective. There may also be scope for a collaboration between the different research groups/prisons to produce effective options for self-harm interventions.

The next section below will look at how the findings of this study could be applied to the design of a full-scale efficacy trial in order to maximise its potential for measuring effectiveness within the prison system.

6.6 Future research

It is acknowledged that the study was not feasible as originally designed, but due to the small sample size and the reduction in self-harm across the prison, we cannot say it was not effective and therefore not worthy of further study. As Altman and Bland (1995, pp485) comment, "the absence of evidence is not evidence of absence" but is likely due to limitations of the research. Both women prisoners and therapists who delivered the therapy reported that they had valued the therapy and that theyfelt it had provided some level of support. One of its strengths is that it is a brief intervention and therefore has the potential to be used and completed by the majority of women prisoners whilst in custody. The therapy itself was not altered significantly from the original model and there is evidence of efficacy in the community.

The difficulties/barriers encountered during this pilot study could be used to help design future intervention trials in similar populations.

Sample

A further trial would need to involve multiple sites in order to make the results generalisable to the entire population of women prisoners. The sample size would also need to be increased in order to obtain levels of significance. Due to the low completion rate it was not possible to use this data to do a power calculation for effect size. As described in section 2.2.3.5, some authors (for example, Kraemer et al, 2006) advise caution against using small pilot studies to inform power calculations as there is no ideal method which guarantees both statistically and

clinically significant results in a study. Bland (2000) suggests the use of data that is already available about a population. The data on the mean in a population may be obtained from previous trials or multiple pilot studies and the standard error used to calculate the sample size needed to achieve the level of confidence we desire.

Therapists

The treatment conditions would have to be delivered by external staff as opposed to prison staff. Employment of dedicated therapists would allow more flexibility in the time they could commit to the study ensuring they could attend the prison more than once per week. Flexibility in the delivery time of the intervention was introduced to help facilitate prison staff ability to deliver sessions around shift patterns. The result was that on average it took twice as long to deliver the four sessions than intended, increasing attrition rates. With external, dedicated staff, flexibility would not be needed and completion time and attrition rates should therefore be reduced. As there are few women's prisons and they are situated all over the country, therapists would need to be local to the prisons involved.

Conditions

Three treatment conditions would be recommended: 1) a therapy group, 2) an active control replicating the conditions but not the content of the therapy group and 3) treatment as usual (TAU).

A commitment of resources would have to be made by the prisons participating in the trial. This would include members of staff in each prison to help facilitate the external therapists coming in and to intervene in any problems they face within the prison. The person would need to be motivated and invested in seeing the trial succeed. These members of prison staff should be part of the Steering Committee for the trial and therefore able to have direct input into the trial. Also suitable rooms for the therapy to take place are required, as lack of rooms and interruptions to sessions could impact efficacy. This would also need to be considered in a cost-effectiveness study.

Measures

Further background information should also be gathered on the participants including childhood sexual abuse, traumatic life events, and a more detailed history of their self-harm before prison. Detailed information on the functions of self-harm in the community as compared to in the prison and changes in method by environment may provide further insight into the effects of any changes on levels of risk in this population.

A measure of severity of self-harm should also be introduced to assess whether there is a change in severity if not the number of incidents. However, this needs to be completed immediately after an incident of self-harm and therefore the prison(s) would have to be involved in this process as much of the self-harm occurs in the evening. An increased follow-up period is also needed to assess the long-term effects of the therapy at 6 and 12 months. Due to the transient nature of this population permission would need to be sought to contact participants in other prisons (if they have moved to a prison not involved in the trial) and also for the community if they are released.

Research team

In order to maintain blindness and reduce bias, a larger research team would be needed. This should include a separate project manager, a quantitative researcher and a qualitative researcher and a multi-disciplinary advisory team which includes senior staff from the prison(s) involved in the research.

Staff training

The lack of understanding and misinterpretation of the functions self-harming behaviours creates a barrier to interventions. General staff training is needed to help prison officers understand self-harm and to reduce labelling and a culture which increases negative attitudes. Prison officers should be encouraged to take on more caring roles and not stigmatise those who do try to work with prisoners.

6.7 Conclusions

As a pilot study, this research was designed to assess the acceptability and feasibility of delivering an intervention for women who self-harm in prison. It was not feasible to deliver the intervention as originally envisioned. Even though prison officers showed the ability to deliver a psychotherapeutic intervention, there remained many barriers to their fulfilling this role. It is possible that existing conflict between custody and care roles had an impact on the prison officer's willingness to deliver the therapy. Introducing external therapists to deliver the therapy sessions improved the feasibility of the intervention. However, this has a number of policy and cost implications which would require further exploration and possibly a further pilot study if this was to be pursued. The lack of evidence presented here does not mean that the intervention was ineffective but suggests that there was no statistical evidence of a difference in effect between the therapy and control groups. It may be that there is no need for the development of a psychotherapeutic intervention for self-harm but that research should focus on improvements to prison conditions or the prison regime, in order to reduce self-harm in prisons. There was a marked reduction in self-harm across the prison during the course of this study which may indicate that prison initiatives to reduce self-harm are working. However, there was no data available to show whether this reduction was at a local or national level or even if it is a stable reduction. A review of current levels of self-harm which attempts to identify where and why there has been a reduction in the figures is needed to assess the direction of future research.

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APPENDICES

Appendix 1: Phase 1 interview schedules

Appendix 1a – prisoner interview

<u>Prisoner Interview - Version 6, 03/04/07</u>

Before starting the interview the interviewer will answer any questions the interviewee may have re: the research project, confidentiality issues, tape recording, consent, etc. Self-harm emotive and difficult to talk about. If interviewee wishes to stop the interview at any time should simply say so.

- Introductory questions leading up to self-harm history – How are you doing on the Wing?

> <u>Self-Harm History</u>
> - Discuss the circumstances existing at the time of the most recent incident of self-harm.

Prompts: situation that led to recent self-harm – thoughts, feelings, intentions – precipitating factors/triggers, chain of events/emotions, prison experience. This to lead to more general self-harm history – length of time self-harming, when first started, why – what was happening at that time, self-harm in and out of prison – if frequency is higher in prison - why? What is causing you to self-harm in prison? Is there anything special about the prison environment that precipitates your feelings/intentions to self-harm? Is there anything you could have done to stop yourself from self-harming?/What could have stopped you?(Mental health context of self-harm – does woman see herself harming only or always in context of depression that she recognises as such; or is it impulsive associated with no particular prolonged low mood/depressive symptoms/spur of the moment/relief seeking?)
Explore why started self-harming (particularly for those who only self-harm in prison) – what made them think of self-harming, was it copied behaviour?

> <u>Prison System</u>
> - What support (and for what) are you currently getting from the prison?
> - What is currently helping you in prison?
> - Is there anything that prevents you from getting the help/support you feel you need?

Prompts: discuss what helps them generally, and then move on to specifics below regarding regime and support services.

> - Discuss feelings about present support services – what feels helpful, what feels unhelpful, and what changes they would like to see (what works/what doesn't work).

Prompts: 1) Informal support services – Listeners. 2) Healthcare – Inreach, drop-ins on wing, Mental Health Resource Centre (day centre activities/courses – Positive Intervention Group, art therapy, creative writing, acupuncture, self-esteem). 3) Professionals within prison – counsellors, chaplain, psychology – CBT therapist. 4) Other external agencies – Samaritans, Red Cross – massages, AA, prison visitors. 5) ACCT support – ACCT reviews. Explore concept of how much support becomes too much for the women. NOT ALL THESE PROMPTS WILL BE RELEVANT TO ALL WOMEN

> - Does talking help – make you feel less like harming yourself?
> - Is there anyone in the prison you feel you can talk to?
> - If so, why can you talk to them – what is it about them that enables you to talk to them? What personal qualities enable you to talk to them? What makes you unable to talk to someone?
> - How often do you talk to them?
> - How often would you like to talk to them?
> - If you could meet to talk to a person once a week would you feel it would help you?
> - Who would you like to talk to? (age,gender?)
> - What would you like to talk about?
> - Would you like to talk in a group or individual setting? Why?
> - Have you had any therapy before (either in or out of prison)? Was it helpful? Discuss
> - How supported do you feel by the prison?

Prompts: explore the kind of relationship needed with staff in order to help the women not to self-harm, and to explore who they feel is best equipped to help them (healthcare, officers, psychology, peer support). What would you like to talk about – problems, triggers, relapse prevention? May be that talking alone is not enough, perhaps they need better medication as well/change in life circumstances.

> - Discuss feelings about the prison regime – what feels helpful, what feels unhelpful, and what changes they would like to see (what works/what doesn't work).

Prompts: 1) things available in prison regime - work, education, CALM centre
2) things that happen to them/daily life - association, time in cell, in-cell activities, cell sharing, visits/contact with family – including phone, location in prison, bullying, influence of other prisoners, staff. NOT ALL THESE PROMPTS WILL BE RELEVANT TO ALL WOMEN – dependent on their individual prison experience.

> Needs/Wants
> - What do you think would help you the most not to self-harm within prison/would make a difference? How would you like to be cared for?
> - What do you need? (wider than within prison)
> - If you could change/choose anything else that you feel would help you what would it be?

Prompts: discuss changes women would like to see that have not already been discussed, chance to discuss needs that extend wider than those within prison.

Any other comments?

<u>Debriefing</u>
If upset/concerned, speak to officer at anytime/healthcare drop-in on wings.

Appendix 1b – Prison officer interview

<u>Discipline Staff Interview – Version 5, 03/04/07</u>

Before starting the interview the interviewer will answer any questions the interviewee may have re: the research project, confidentiality issues, tape recording, etc. Self-harm is emotive and difficult to talk about. If interviewee feels upset and wants to stop interview, should simply say so.

<u>Attitudes to Prisoner Self-Harm</u>

- Why do you think prisoners might self-harm?
- What do you think are the motives behind self-harm? If you consider there to be different motives, how do you distinguish between them?
- Can you understand why a prisoner would self-harm?

Prompts: explore officer's views on self-harm through their own experience, officer to describe it, explore empathy and "manipulation" (if mentioned by officer).

<u>Needs of Women who Self-Harm</u>

- What do you think the needs of women who self-harm are?
- Do you consider that all women who self-harm have the same needs as those prisoners who don't?
- How do you think these needs can be best met?
- What are the barriers to meeting these needs?
- Do you think the needs of the women are currently being met?
- Do you think if these needs were met the women would self-harm less?

Prompts: difference between prisoners who self-harm and those that don't, explore barriers to meeting the needs of women in the prison as a whole.

<u>Prison System</u>

- Discuss feelings about present support services – what do you feel is helpful, not helpful, or would like to see changed for women who self-harm.

Prompts: Open prompt first – what works and what doesn't in their view. Are current interventions ok, but women cant access them or don't want to. Do they believe something new is actually needed or not? Then - 1) Informal support services – Listeners. 2) Healthcare – Inreach, drop-ins on wing, Mental Health Resource Centre (day centre activities/courses – Positive Intervention Group, art therapy, creative writing, acupuncture,

self-esteem). 3) Professionals within prison – counsellors, chaplain, psychology – CBT therapist. 4) Other external agencies – Samaritans, Red Cross – massages, AA, prison visitors. 5) **ACCT support** – explore why its used, decision making process of why someone put on ACCT (because they feel they have to v genuine risk), ACCT reviews.

- Discuss feeling about the prison regime – what do you feel is helpful, not helpful, or would like to see changed for women who self-harm.

Prompts: 1) things available in prison regime - work, education, CALM centre
2) things that happen to them/daily life - association, time in cell, in-cell activities, cell sharing, visits/contact with family (including phone) – how can women be kept in contact with their family, can a more systematic way be achieved? Location in prison, bullying, influence of other prisoners, staff.

Prison Officer Role

- What is involved in your role as a Prison Officer?
- Should identification and management of at risk prisoners fit into this role?
- How does it fit into this role?
- Is there anything that prevents you from giving women who self-harm support?
- Do you feel adequately trained in dealing with women who self-harm?
- Do you feel adequately supported in dealing with women who self-harm?
- What help/support do you need in managing women who self-harm?

Prompts: are some aspects of role given precedence, custody v care, does managing those at risk conflict with anything else, how it fits into their routine, are there difficulties/problems. Support – governor management, direct SO/PO management, fellow colleagues, SCWS, local care teams. Do they think it is their role, or should be their responsibility to reduce self-harm?

Proposed Intervention

- What do you think would help the women who self-harm? There are several things in the community that help … Discuss
- If someone self-harms, what care package would you like to see?
- What staff-prisoner relationship is needed to deal with women who self-harm? Is sexual abuse an issue, if so, do you feel comfortable talking about this issue with the women?
- Within the prison who should support/is best equipped to deal with/ the needs of women who self-harm? Why?
- If an intervention to deal with women who self-harm were to be introduced into the prison, would it be something you would be interested in being involved in? – discuss further. What would concern you about the

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intervention?

Prompts: community treatments – discussing interpersonal problems, relapse prevention, triggers, diversional activities, safer cutting, family intervention, creative therapies – art/drama, counselling. Explore positive staff-prisoner relationships; are they achievable, are there barriers to achieving them? Explore proposed intervention – is there anything that concerns officer about its implementation - modification, is there anything they feel is positive about it for both women and staff? How would it fit into existing system? Regime/staff work rota/their beliefs about what the role of prison should be

Any other comments?

Appendix 1c – healthcare staff interview

Before starting the interview the interviewer will answer any questions the interviewee may have re: the research project, confidentiality issues, tape recording, etc. Self-harm is emotive and difficult to talk about. If interviewee feels upset and wishes to stop the interview, they should simply say so.

Attitudes to Prisoner Self-Harm

- Why do you think prisoners might self-harm?
- What do you think are the motives behind self-harm? If you consider there to be different motives, how do you distinguish between them?
- Can you understand why a prisoner would self-harm?

Prompts: explore views on self-harm through their own experience, describe it, explore empathy and "manipulation" (if mentioned).

Needs of Women who Self-Harm

- What do you think the needs of women who self-harm are?
- Do you consider that all women who self-harm have the same needs as those prisoners who don't?
- How do you think these needs can be best met?
- What are the barriers to meeting these needs?
- Do you think the needs of the women are currently being met?
- Do you think if these needs were met the women would self-harm less?

Prompts: difference between prisoners who self-harm and those that don't, explore barriers to meeting the needs of women in the prison as a whole.

Prison System

- Discuss feelings about present support services – what do you feel is helpful, not helpful, or would like to see changed for women who self-harm.

Prompts: 1) Informal support services – Listeners. 2) Healthcare – Inreach, drop-ins on wing, Mental Health Resource Centre (day centre activities/courses – Positive Intervention Group, art therapy, creative writing, acupuncture, self-esteem). 3) Professionals within prison – counsellors, chaplain, psychology – CBT therapist. 4) Other external agencies –

Samaritans, Red Cross – massages, AA, prison visitors. 5) ACCT support – ACCT reviews – what aspects of current support services are helping women who self-harm?

- Discuss feeling about the prison regime – what do you feel is helpful, not helpful, or would like to see changed for women who self-harm.

Prompts: 1) things available in prison regime - work, education, CALM centre
2) things that happen to them/daily life - association, time in cell, in-cell activities, cell sharing, visits/contact with family (including phone) – how can women be kept in contact with their family, can a more systematic way be achieved? Location in prison, bullying, influence of other prisoners, staff.

Healthcare Role

- What is involved in your role in Healthcare?
- Should management of at risk prisoners fit into this role?
- How does it fit into this role?
- Do you think healthcare should have a greater role?
- Is there anything that prevents you from giving women who self-harm support?
- Do you feel adequately trained in dealing with women who self-harm?
- Do you feel adequately supported in dealing with women who self-harm?
- What help/support do you need in managing women who self-harm?

Prompts: are some aspects of role given precedence, custody v care, does managing those at risk conflict with anything else, how it fits into their routine, are there difficulties/problems. Support – governor management, direct management, fellow colleagues, SCWS, local care teams.

Proposed Intervention

- What do you think would help the women who self-harm? There are several things in the community that help … Discuss
- If someone self-harms, what care package would you like to see?
- What staff-prisoner relationship is needed to deal most effectively with women who self-harm? Is sexual abuse an issue, if so, do you feel comfortable talking about this issue with the women?
- Within the prison who should support/is best equipped to deal with/ the needs of women who self-harm? Why? Skills needed?
- If an intervention to deal with women who self-harm were to be introduced into the prison, would it be something you would be interested in being involved in? – discuss further. What would concern you about the proposed intervention?

Prompts: community treatments – discussing interpersonal problems, relapse prevention, triggers, diversional activities, safer cutting, family intervention, creative therapies – art/drama, counselling.   Explore positive staff-prisoner relationships; are they achievable, are there barriers to achieving them? Explore proposed intervention – is there anything that concerns staff member about its implementation - modification, is there anything they feel is positive about it for both women and staff? How would it fit into existing regime?

Any other comments?

Appendix 1d - Management Staff Interview

Before starting the interview the interviewer will answer any questions the interviewee may have re: the research project, confidentiality issues, tape recording, etc. Self-harm emotive, and can be difficult to talk about. If interviewee wants to stop at any time, simply say so.

Attitudes to Prisoner Self-Harm

- Why do you think prisoners might self-harm?
- What do you think are the motives behind self-harm? If you consider there to be different motives, how do you distinguish between them?
- Can you understand why a prisoner would self-harm?

Prompts: explore views on self-harm through their own experience, describe it, explore empathy and "manipulation" (if mentioned).

Needs of Women who Self-Harm

- What do you think the needs of women who self-harm are?
- Do you consider that women who self-harm have the same needs as those prisoners who don't?
- How do you think these needs can be best met?
- What are the barriers to meeting these needs?
- Do you feel the needs of the women are currently being met?

Prompts: difference between prisoners who self-harm and those that don't, explore barriers to meeting the needs of women in the prison as a whole.

Prison System

- Discuss feelings about present support services – what do you feel is helpful, not helpful/barriers, or would like to see changed for women who self-harm.

Prompts: 1) Informal support services – Listeners. 2) Healthcare – Inreach, drop-ins on wing, Mental Health Resource Centre (day centre activities/courses – Positive Intervention Group, art therapy, creative writing, acupuncture, self-esteem). 3) Professionals within prison – counsellors, chaplain, psychology – CBT therapist. 4) Other external agencies – Samaritans, Red Cross – massages, AA, prison visitors. 5) ACCT support – ACCT reviews.

- Discuss feelings about the prison regime – what do you feel is helpful, not

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> helpful/barriers, or would like to see changed for women who self-harm.

Prompts: 1) things available in prison regime - work, education, CALM centre
2) things that happen to them/daily life - association, time in cell, in-cell activities, cell sharing, visits/contact with family – including phone, location in prison, bullying, influence of other prisoners, staff.

Proposed Intervention

- What do you think would help the women prisoners in your care who self-harm? There are several things in the community that help … Discuss
- If someone self-harms, what care package would you like to see here in the prison?
- What staff-prisoner relationship is needed to deal most effectively with women prisoners who self-harm?
- Within the prison who should support/is best equipped to deal with/ the needs of women prisoners who self-harm? Why?
- If the women who self-harm go and talk to someone once a week about their problems, do you think this would be helpful? Why/why not? Is there anything that would concern you about such an intervention?
- What would you like to see the intervention include?
- What would you like an intervention for self-harming women achieve?
- Do you think it would be helpful for all women prisoners here who self-harm? Why/why not?

Prompts: community treatments – discussing interpersonal problems, relapse prevention, triggers, diversional activities, safer cutting, family intervention, creative therapies – art/drama, counselling. Explore positive staff-prisoner relationships; are they achievable, how, are there barriers to achieving them?

Proposed Intervention – Practicalities

- Recruitment criteria - Do you think all women prisoners who self-harm should receive the intervention? If not, why should some women be included/excluded? Why would it not be suitable for all women prisoners?
- Where do you think the intervention should be based in the Prison?
- Which staff do you think should provide the intervention? What skills are important? Does gender matter?
- What kind of support do you think staff would need/you would like to see?
- Intervention once a week for four to six weeks, is this practical in the prison environment? How do you think it would it fit into the existing regime?

- Can a set space be provided for the intervention? Is there anything that would take precedence over this space?
- Can a set person be provided for four to six sessions a month for an individual prisoner? Will those providing the intervention have it included in their detail?
- What would happen in the event of: 1) a lockdown 2) staff shortages 3) a woman on Basic Regime, who the officers said could not be let out as had a recent discipline problem – what takes precedence discipline or therapy.
- Would you have any other practical concerns about the intervention in the prison environment?

Prompts: first, introduce and discuss briefly the possible intervention (four sessions, approx. 50 minutes, over four weeks, prisoner and intervention co-ordinator discuss prisoner's interpersonal problems. Explore intervention – what would concern staff member? Discuss different women who self-harm (motives) and whether intervention would be appropriate eg: prolific self-harm, those with drug or alcohol problems. Discuss its placement alongside ACCT or within ACCT? Discuss interventions focus on reliability and security, collaboration with intervention leader and prisoner. Discuss what they feel intervention should include – relapse prevention, triggers, interpersonal problems.

Any other comments?

The University of Manchester
Piloting the development of a tailored intervention for women who self-harm in prison

Introduction

My name is _____, I am a researcher working with the University of Manchester, Department of Psychiatry. At the moment we are working on a project to develop what help we can give for women who self harm.

What will I have to do if I take part?

If you agree to take part in the study, I will ask you questions that will explore the needs of women who self-harm in prison from the perspective of prisoners. This will help us define the likely barriers to the introduction of an intervention into prison. It will also help us to gain women's views on how the proposed intervention would need to be modified for the prison environment. I may ask to record part of the interview using a dictaphone, and in this case you will be asked for your permission to use anonymous, direct quotes when we report the results.

Do I have to take part?

No, taking part is voluntary. If you would prefer not to take part you do not have to give a reason and no pressure will be put on you to try and change your mind. You can change your mind about taking part at any time. If you decide not to take part, or withdraw at any stage, your legal and parole rights and your access to medical care will not be affected.

If I agree to take part what happens to the information?

All the information you give us will be confidential and used for the purposes of this study only. The information will be used in a way that will not allow you to be identified individually. *The only exception to this is if, after interview, we feel your health or safety, or that of others around you is at immediate risk because of something you have told us about how you are feeling. In that case, we will have to pass that information on to the prison healthcare staff, so that they can help you further.*

What do I do now?

Think about the information on this sheet and ask me about anything that you are not sure about. If you agree to take part, we will go ahead.

If I need to see someone about the research after I have taken part who can I contact?

If, after taking part in the research, you want further information or have any more questions about the study, tell your personal officer who will then contact me and I will come back to see you.

But if after taking part, you become upset and need help immediately to deal with your feelings without hurting yourself, it is very important that you talk to someone straight away.

Any member of staff in the prison will be able to help you, all you need to do is speak to someone.

Please do this as soon as you start feeling upset, it will help.

THANK YOU FOR READING THIS

Appendix 2b – Phase 1 consent form
The University of Manchester
Piloting the development of a tailored intervention for women who self-harm in prison

<u>CONSENT FORM</u>

Name _____

Research ID Number _____
(please leave blank)

1. I confirm that I have read and understood the attached information sheet and have had the opportunity to ask questions.

    OR I confirm that I have had the attached information sheet explained to me and have had the opportunity to ask questions.

2. I understand that I can withdraw from the study at any time without having to give any reasons.

3. I agree to researchers from the University of Manchester accessing my health care and discipline records.

4. I hereby give consent to be involved in this research project. I understand that there will be no negative impact on the care I will receive in prison if I decide later to withdraw from the study.

_____   _____
Signature of Participant   Date

Appendix 2c- Prisoner demographic sheet

<u>Women's Demographics</u>

1) Age: _____

2) Ethnicity:

☐ White

☐ Black African

☐ Black Caribbean

☐ Asian

☐ Other, please specify _____

3) Marital Status:

☐ Single

☐ Married

☐ Divorced

☐ Separated

☐ Widowed

4) Prisoner Status:

☐ Sentenced, if so, sentence length: _____

☐ Remand

5) Previous imprisonment:

☐ No

☐ Yes, if so, how long: _____

6) Do you receive visits:

☐

Yes, if so, how many per month: _____

☐ No

7) Do you have children:

☐ Yes,
If so, how many children: _____
Who are they in the care of: _____
How often do you see them (per month): _____

☐ No

8) What age did you leave school: _____

9) Do you self-harm:

☐ In prison only

☐ Both inside and outside of prison

10) How old were you when you started self-harming: _____

11) How long have you been self-harming: _____

12) Please tick if you have had experience of any of the following:

☐ Hospitalisation due to self-harm

☐ Alcohol dependence

☐ Drug dependence, if so, what drugs _____

☐ History of care

☐ History of neglect

☐ Domestic violence

☐ Sexual abuse

☐ Previous contact with a psychologist/psychiatrist, if so, what was the
diagnosis _____

Appendix 2d- Prison staff demographic sheet

ID:
Date:

<u>Prison Staff Demographics</u>

1) Age: _____

2) Gender: ☐ Male ☐ Female

3) Ethnicity:

  ☐ White

  ☐ Black African

  ☐ Black Caribbean

  ☐ Asian

  ☐ Other, please specify _____

4) Grade/Rank in present establishment: _____

5) Location in present establishment:

  ☐ Waite Wing

  ☐ CSRU

  ☐ Houses

  ☐ Other, please specify _____

6) How long have you worked at present establishment (years): _____

7) How long have you worked for the Prison Service (years): _____

8) What other category prisons have you worked in:

  ☐ A ☐ Not Applicable

  ☐ B

  ☐ C

  ☐ D

WOMEN OFFENDERS REPEATED SELF-HARM INTERVENTION PILOT

The NHS and Manchester University are working to develop an intervention for self-harmers at Styal prison.

Interviews were conducted earlier last year with a number of prison officers, healthcare staff and women who self-harm to develop an intervention specific to this population.

The therapy that will be piloted is a brief psychodynamic interpersonal therapy which entails identifying and helping to resolve interpersonal difficulties which cause or exacerbate psychological distress.

Three volunteers are needed to work as therapists on the pilot study. Volunteers need not be experienced in delivering therapies, please see the person specification below.

Volunteers will take part in a screening process including a reference from a Line manager and a short interview.

Successful candidates will receive full training in the therapy and weekly supervision for the duration of the study. Therapy sessions will form part of your current role and will take place during normal day shift hours.

Applicants must be available between (dates**) for training.**

If you are motivated and interested in delivering the intervention please could you complete the attached form and email it to:

Cassandra.kenning@manchester.ac.uk

Applications must be received by (date**).**

Person specification for the therapist roles:

Essential
- Commitment to working therapeutically with prisoners
- Enthusiastic with a positive outlook
- Highly motivated
- Good interpersonal skills
- Good self-awareness and able to maintain safe boundaries
- Self-motivated and flexible with the ability to work independently

Desirable
- Experience of psychological interventions
- Previous experience in mental health setting

<u>Application for self-harm therapy training</u>

Name:

DoB:

Position:

Contact details:

Line Manager:

Reason for wanting to take part:

Relevant experience:

Appendix 4: Outline of PIT sessions

Extracts from the PIT manual adapted for work with self-harm
By Professor E Guthrie

Structure of the therapy

This manual describes a treatment approach based on 4 sessions of therapy, delivered in client's homes. Treatment is offered to individuals who have presented to an A&E department following self harm. All treatment is started as soon as possible, and most patients are followed-up within 24-48 hours following discharge from the A&E department. The intervention is very brief and focused.

Structure of therapy
Engagement
The person's story
Risk assessment
Interpersonal formulation
Liaison with GP
PIT specific tools and techniques
Identifying and managing threats to the therapeutic alliance
Facilitating progress
Interim sessions
Final session
Goodbye letter
Management plan

Session contents

Aims of the initial session
a) engagement
b) risk assessment
c) development of an interpersonal formulation

The Interim Sessions
a) monitor suicidal thoughts or thoughts of self harm (continued risk assessment) b) maintain interpersonal focus c) set realistic practical goals d) increase links between therapist-client relationship and other important interpersonal relationships e) flag up the ending

The Last Session
a) acknowledge ending b) review symptoms c) review changes d) discuss letter e) consider work that can be continued f) say goodbye

Appendix 5: Phase 4 interview schedules

Appendix 5a- therapy completer interview

<u>Interview Schedule – Women (Version3 – 12/03/09)</u>

<u>The Therapy</u>

- Can you describe the treatment you received? *(perhaps run through a session)*
- *Have you had treatment for your problems in the past? How did this treatment compare?*
- Did you find the sessions helped you? If so, why/why not?
- Did the sessions teach you anything?
- Was there anything you liked about the sessions?
- Was there anything you disliked about the sessions?
- Is there anything you think could be improved about the sessions?
- How have things changed for you/ your situation changed since receiving the sessions?
- Do you think you can or will be able in future to cope differently now? Have there been any triggers that would have normally made you self-harm? Is there anything you would do now instead of self-harming? If so, what?
- In between sessions did you have any difficult times? When were these and how did you cope?
- Do you think self-harming is something you are less likely to do now, if things went wrong or if you're feeling confused/upset? Why/why not?
- What do you need next to help you?

<u>Relationship with Therapist</u>

- How did you get on with your therapist? Did you feel comfortable with the therapist?
- What was it that you liked/disliked about your therapist? *(women may find this difficult so may need to give examples of specific instances)*
- How important do you think the way you got on with your therapist was in how your sessions went?
- Did you find it beneficial that the therapist not a member of prison staff? Why/why not?
- How would you feel about a prison officer delivering the therapy?
- Would you have a preference in the type of staff delivering the therapy? (*explore roles, prior relationships, skills and qualities)*

<u>Practicalities</u>

- Did you manage to get to all of your sessions? If not, what happened? Did you mind if you missed sessions? Did it make a difference to how your sessions went? (*explore whether any missed sessions were due to the women double-booking themselves, or*

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whether they weren't unlocked or due to unforeseen prison circumstances eg: lockdown)

- Were you informed of when all your sessions were going to take place?
- Where did your sessions take place? How did you feel about this? Do you think it makes a difference where you have your sessions? Where would you like it to take place? *(explore whether delivery of therapy on Wing, off Wing, or in several different locations affects how comfortable women feel)*
- What time did your sessions take place? When would have been the best time of day for you to have your sessions? *(explore whether there is a preference for a certain time of day eg: women may be anxious and unable to concentrate if they have therapy just before they are due to get their meds)*
- Is there anything that could have been improved to make the running of your sessions easier?

Appendix 5b – non-completer interview

<u>Interview Schedule (for women who did not complete therapy/control sessions)</u>

This interview schedule is for those women who have refused to participate or dropped out of the therapy or control sessions. Therefore it will be brief and informal (eg: perhaps conducted on the Wing). It will be tape recorded if the women consent, if not, notes will be made after the interview has finished.

- Discuss previous self-harm and if had any coping mechanisms – documenting approx. when it occurred, if in prison and if in response to particular stressors, document any coping mechanisms.

- Attitudes towards previous experiences to services/therapy – ask woman to describe previous experiences of treatment and their experience of this intervention – what they liked/disliked about the intervention/therapy.

- Explore how they felt about being offered this trial/intervention, explore what they expected from treatment.

- Explore what they understood this intervention to be, any positives, what they thought they would (for refusals),or what they (for drop out) dislike about this intervention:-
- the intervention itself,
- the therapist (gender, any issues with this person, prior knowledge of therapist)
- practicalities of the intervention
- change in personal circumstances
- belief that nothing can help with their self-harm

- What did other women say about the intervention/trial – did that affect the woman?

- Discuss whether if the intervention had been different would it have made any difference?
- group sessions
- activity based eg: art therapy

- What do they think might help them / their self-harming behaviour?

Appendix 5c – internal therapist interview (no sessions)

<u>Interview Schedule – Therapists (Version3 march 12 09)</u>

<u>Their Role</u>

- Why did you decide to take on this role? What were your reasons?
- What were your expectations regarding the role? Have these been met?
- Do you feel adequately trained/competent to deliver the intervention? If not, what more would you need?
- Is there anything that could be improved about the training? (*content, delivery etc*)
- Have you gained any new skills? If so, what? (*also explore whether delivering therapy gave greater job satisfaction*)
- If the therapy was to be rolled out across the prison estate who do you think would have the requisite skills to deliver it, and what would these skills be? Is it something you think anyone can be trained to do? (*aim to explore whether they think prison officers would be suitable to deliver the therapy*)
- Do you feel supported to deliver the therapy? If so, why/why not? (*explore whether the therapist feels supported by management, fellow colleagues, prison officers*)
- Do you find your supervision helpful? If not, what else would you need? What is done in the supervision? What was talked about/what issues did you bring, what issues did your supervisor bring?
- How do you feel about the frequency of supervision? (*enough, not enough, time to have supervision*)
- Is there anything that could be improved about the supervision process?

<u>The Therapy</u>

Introductory question: Have you delivered any therapy? How have you found it? (if not go to questions on practicalities)

- How did you find delivering the therapy to the women? (*explore whether they found it easy, difficult, any challenges they faced – dealing with conflict, challenging women, moving the women forward*)
- Did you feel safe? (*explore whether felt physically safe and emotionally safe*)
- Do you think the women engaged with the intervention? If so, why/why not?
- Do you think it helped any of the women? If so, why/why not? Which particular aspect may have helped the women? Was it some women that benefited? (*run through a session that they thought went well and one when things went less well*)
- Do you think it taught them anything? If so, why and what? If not, why?
- Do you think the intervention was suitable for all the women you delivered sessions to? If so, why/why not?
- Is there anything you liked about the intervention?
- Is there anything you disliked about the intervention?

- Is there anything you feel could be improved about the intervention?

Practicalities

- What difficulties have you encountered that have interfered with your ability to deliver the intervention? *(explore access to women, attitude of staff, room availability, work load, time, staff support – discuss specific examples)*
- Are these barriers currently an issue?
- How have you tried to resolve these issues?
- Were sessions cancelled? Why? *(discuss specific examples)*
- What could we do to resolve these issues together?
- Do you think the way the intervention was organised within the prison environment could be improved? If so, how?
- How did the intervention fit into the existing prison regime?

Appendix 5d – therapist interview (any sessions)

<u>Interview Schedule – Therapists (Version 2 – 07/11/07)</u>

Introductory question – How were the sessions for you?

<u>Their Role</u>

- Did you feel adequately trained/competent to deliver the intervention? If not, what more would you need?
- Did you gain any new skills? If so, what? (*also explore whether delivering therapy gave greater job satisfaction)*
- How did it fit in with your work commitments? *(Any conflicts/priorities, support from other supervisors?)*
- If the therapy was to be rolled out across the prison estate who do you think would have the requisite skills to deliver it, and what would these skills be? Is it something you think anyone can be trained to do? *(aim to explore whether they think prison officers would be suitable to deliver the therapy)*
- How did you find delivering the therapy to the women? *(explore whether they found it easy, difficult, any challenges they faced – dealing with conflict, challenging women, moving the women forward)*
- Did you feel safe? (*explore whether felt physically safe and emotionally safe)*
- Did you feel supported when delivering the therapy? If so, why/why not? *(explore whether the therapist felt supported by management, fellow colleagues, prison officers)*
- Did you find your supervision was helpful? If not, what else would you need? What was done in the supervision? What was talked about/what issues did you bring, what issues did your supervisor bring?
- How did you feel about the frequency of supervision? *(enough, not enough)*
- Is there anything that could be improved about the supervision process?

<u>The Therapy</u>

- Do you think the women engaged with the intervention? If so, why/why not?
- Do you think it helped any of the women? If so, why/why not? Which particular aspect may have helped the women? Was it some women that benefited? *(run through a session that they thought went well and one when things went less well)*
- Do you think it taught them anything? If so, why and what? If not, why?
- Do you think the intervention was suitable for all the women you delivered sessions to? If so, why/why not?
- Is there anything you liked about the intervention?
- Is there anything you disliked about the intervention?
- Is there anything you feel could be improved about the intervention?

<u>Practicalities</u>

- How did the intervention fit into the existing prison regime?
- Were there any difficulties? If so, what were they and how did you manage to resolve them? *(explore access to women, attitude of staff, room availability, work load – discuss specific examples)*
- Were sessions cancelled? Why? *(discuss specific examples)*
- Do you think the way the intervention was organised within the prison environment could be improved? If so, how?

Appendix 5e – therapy supervisor interview

Interview Schedule – Therapist Supervisors (Version 1 – 20/01/10)

Introduction question – How did you find delivering supervision to the therapists?

Supervision

- How would you describe your role?
- How was supervision usually delivered, individual or group? Did this change? What if any affect do you think this had on the supervision sessions?
- How regular were the supervision sessions?
- What did you normally cover in the sessions?

The therapy
- Do you think PIT therapy was suitable for the prison environment?
- What if any do you think the barriers were for using this therapy model?
- In what ways did the therapy model we delivered in the prison, differ from the model used in the community? Do you think these changes were appropriate? What impact do you think these changes may have had?
- Do you think the therapists stuck to the therapy model? Did any of the therapists have difficulty using the model? Did this improve?
- Do you think four was the optimum number of sessions? If you were to change this, what number would you suggest?
- Do you think the women engaged with the intervention? If so why, why not?
- Do you think it helped any of the women? If so, why/why not? Which particular aspect may have helped the women?

The therapists
Prison staff:
- Do you think the therapists were suitable for the role? Why? Did any standout *(good or bad)*?
- Do you think the prison staff were sufficiently trained? Why/why not?
- How confident do you think the prison staff were in delivering the therapy?
- What do you think were the main barriers to prison staff delivering the therapy?
- How do you think this role fitted in with their normal work commitments?

External therapists: (Clive only)
- What did you think about the decision to bring in external therapists?
- Do you think they were sufficiently trained? Why/why not?
- How confident do you think they were in delivering the therapy?
- What do you think were the main barriers for external therapists delivering the therapy?
- How do you think this role fitted in with their normal work commitments?
- Do you think their participation in the trial provided new skills/valuable experience? If so in what way?

- Comparing the prison staff therapists with the external therapists, were there any substantial differences in ability/confidence/understanding of the model?

Practicalities

- Where did supervision sessions take place? *Did this change? If so, why?*
- Were there any difficulties with where the sessions took place? If so what were they?
- Do you think the environment for the supervision sessions was suitable? Why?
- Do you think the therapists received enough supervision?
- Do you think there is anything that could be improved about the supervision process?
- How did the intervention fit into the existing prison regime?
- Do you think the way the intervention was organised within the prison environment could be improved? If so, how?

Appendix 6

Prison staff and women prisoner's views on self-harm; their implications for service delivery and development: a qualitative study.

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Prison staff and women prisoner's views on self-harm; their implications for service delivery and development: a qualitative study.

Abstract

Background: Rates of self-harm are high among women in prison in the UK. This is the first study to compare the views and attitudes of prison staff and women prisoners and to look at the effects of these attitudes on prisoner/staff relationships.
Aims: To explore understanding of self-harm amongst women prisoners, prison officers and healthcare staff and how their perceptions might influence service provision and development.
Method: Semi-structured interviews were conducted with women prisoners who self-harm, and with staff at a women's prison. Data were analysed thematically.
Results: Prison officers often attributed motives to self-harm such as 'manipulation' and 'attention-seeking', whereas descriptions by women prisoners, prison governors and healthcare staff suggested explanations in affect-regulation or self-punishment.
Conclusions: Differences between prison officers and other staff working in the prison in their understanding of self-harm by women prisoners may lie in training differences, but there may be other explanations such as self-protection/coping strategies. More training and support for officers may result in improved staff-prisoner relationships and thus safer service provision.

Key words: self-harm; prisons; prisoners; women; prison staff; service development

Introduction

In the UK, non-fatal suicidal behaviour is defined as "an act of intentional self-poisoning or injury irrespective of the apparent purpose of the act" (National Health Service (NHS, 1998). Self-harm is one of the strongest predictors of subsequent suicide (Zahl and Hawton, 2004; Cooper et al, 2005) and therefore an important target for suicide prevention. The National Suicide Prevention Strategy for England (Department of Health (DoH), 2002) identified prisoners as a population at particularly high risk of suicide, supported by several studies (Shaw et al, 2003; Jenkins et al, 2005) with rates of 9% and 10% among pre-trial and sentenced women respectively (Home Office, 1998; Shaw et al, 2004). There was a 37% increase in incidence of self-harm in UK prisons between 2003-2007, with a 48% increase in women prisoners (Howard League for Penal Reform, 2008). A number of previous studies have explored attitudes of medical staff towards patients who self-harm and present to hospitals (McAllister, 2003; Friedman et al, 2006; Crawford et al, 2003; Patterson et al, 2007a). Nearly all of the studies report evidence of negative staff attitudes, stereotyping self-harmers. The exception is the study by Crawford et al (2003), reporting a low level of negativity which appeared to be unrelated to levels of knowledge, contact with self-harm patients or professional group. One study reported that professionals, including mental health nurses, general nurses and social workers, may build negative emotional responses along with hostile cognitions and rejecting behaviour (Patterson et al, 2007a). It is suggested that antipathy in professional carers may act to increase the risk of future self-harm in patients, negatively influencing help seeking behaviour and interfering with a person's willingness to

engage with services (Patterson et al, 2007b). There is also evidence that those who may be initially empathic can develop negative attitudes when faced with repeated episodes and little improvement in the people with whom they are working (Watts and Morgan, 1994).

Research into prison officers' attitudes towards self-harm by adult male prisoners (Ireland and Quinn, 2007; Pannell et al, 2003; Howard League for Penal Reform, 2001) has found negative attitudes in prison staff. These have been linked to factors including a lack of knowledge of the causes and functions of self-harm, a strong belief in the manipulative intent behind it, and the feeling that dealing with such prisoners is beyond their capabilities (Ireland and Quinn, 2007). An earlier qualitative study by Snow (1997) supports these findings, reporting that all six officers interviewed considered the primary aim of self-harm by prisoners was 'to get attention'. One study however, reported that officers mainly perceived self-harm to be a form of communication and less commonly as an attention seeking behaviour and suggested that officers' attitudes did not change as a result of frequency or severity of self-harm acts (Pannell et al, 2003).

In a review of the functions of self-harm, Klonsky (2007) suggested that the most common is affect-regulation, but other functions included self-punishment, response to dissociation, to replace or avoid the impulse to commit suicide, attention seeking and establishment of interpersonal boundaries. In the four prison-based studies included in this analysis, only affect-regulation, a response to dissociation and self-punishment were evident (Klonsky, 2007).

Although the effects of healthcare staff attitudes on management of people who self-harm in the community have been explored, there is no literature reporting the effects on prisoner/prison staff relationships and how this may affect service delivery and development. Ours is the first to compare attitudes of women prisoners who self-harm with the attitudes and perspectives of different prison staff and examining the possible impact on the delivery and development of prison services.

Methods
The qualitative study was nested in a pilot trial adapting a psychotherapeutic intervention from a community-based RCT for women prisoners who self-harm (Guthrie et al, 2001). The study was carried out during 2006/09 at a women's prison in North West England.

Women prisoners were identified through 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. All incidents of self-harm, regardless of severity, should be recorded. Our sample included only those who had committed an act of self-harm within the two weeks prior to interview, in order to capture people concurrently with the crisis and thus a clearer memory of specific feelings and experiences. Prisoners were purposively sampled according to where they were housed in the prison: the prison is split into different residential units, which are related to security and linked to frequency of self-harm. Women prisoners from each of the areas within the prison were interviewed, as different units may have an impact on experiences. For prison staff, the aim was to achieve as

wide a range of interviews across the prison as possible, so sampling was by age, gender, time in service and roles within the prison.

For both sets of interviews, consent was acquired in line with research governance guidelines. Semi-structured interview schedules, based on the theoretical constructs behind self-harming behaviour, explored attitudes and understanding of the mechanisms of self-harm and its management in the prison. Interviews were undertaken by VS and CK. All interviews were audio taped, with participant consent, and lasted between 30-90 minutes. Interviews were transcribed verbatim. Interviews were continued until category saturation (Strauss and Corbin, 1998) was achieved.

Thematic analysis proceeded in parallel with the interviews and was inductive (Strauss and Corbin, 1998). Transcribing was done by the interviewer as part of the data analysis, which is a process supported by other qualitative researchers (Braun and Clarke, 2006). The transcripts were read and discussed by researchers from different professional backgrounds (primary care, psychology, psychiatry). Coding was informed by the accumulating data and continuing thematic analysis. Thematic categories were identified in initial interviews which were then tested or explored in subsequent interviews where disconfirmatory evidence was sought (Braun and Clarke, 2006). Interpretation and coding of data was undertaken by CCG, CK, VS, JC individually and the themes were agreed through discussion.

Results

Prison staff interviews included eight members of discipline staff, five members of healthcare and two governors. Fifteen women prisoners were interviewed. Participants' demographic details are shown in tables 1 and 2.

Table 1 - Prisoner demographics:

	Range	*Mean*
Age	19-39 years	27 years
Ethnicity	13 white, 2 mixed race	N/A
Status (sentenced: remand)	11: 4	N/A
Sentence length (months)	4-300	57 (median 22)
Previous history of self-harm outside prison	11 of 15	N/A
Age of onset of self-harm	7-31 years	17 years

Table 2 - Prison staff demographics:

	Range	*Mean*
Age (years)	22-53	37
Gender	9 female, 6 male	N/A
Ethnicity	15 white	N/A
Length of service at prison (months)	2-120	39

Thematic data are presented to illustrate the range and commonality of meaning from the perspective of women prisoners (P), prison officers (S), healthcare staff (H) and Governors (M).

Risk factors and Precipitants
Women prisoners cited both imported (i.e. from outside) and current situational factors as reasons for their self-harm. Imported factors included past histories of sexual abuse, domestic violence, family neglect, bereavement, the impact of having children removed from their care and mental health problems, all of which they cited as making them vulnerable to self-harm. Current situational factors identified by the women prisoners included: an unpleasant event, being denied something, and changes in environment which included being put on the 'basic régime' (where rewards such as televisions, association time and access to other facilities are withdrawn on disciplinary grounds) or being moved to another area in the prison. Feelings of being bullied, feelings of punishment and/or perceived unfairness of treatment, as well as feelings that they were not being listened to, were also cited by women.

As well as imported factors, such as drug and alcohol withdrawal, most healthcare staff also identified the prison environment and its associated stresses as important influencing factors triggering self-harm. In particular, they suggested the feeling of disempowerment caused by being in prison:

> *"Being in prison, sometimes people can feel disempowered and by using a form of self-harm it gives them a feeling of empowerment and control".* (H3:18)

In contrast, the prison officers rarely suggested reasons for self-harm related to the effects of being in a prison environment. They identified risk factors such as previous abuse, domestic stresses and personality or mental illnesses.

Healthcare staff thus tended to be closer to the women prisoners in their identification of both imported and situational factors that may precipitate self-harming behaviour, while prison officers rerpoted a more limited view of the causes for self-harm among prisoners, focussing mainly on existing or imported risk factors rather than the prison environment.

Function of self-harm

The women prisoners described incidents of self-harm as impulsive, unstoppable acts related to intense feelings of anger, hurt and frustration, over which they had little or no control. Anger was often identified as the emotion immediately prior to self-harm, with the self-harm possibly serving as a means of avoiding harm to others. The women described turning their anger inwards, stating that they would rather hurt themselves than others. They described self-harm as a method of coping with their emotions, as a form of self-punishment, as a way of relieving pain and frustration or as a combination of these.

> *"I'll just sit there thinking about my past, you know, how I've come to prison in the first place, I've let my kids down, you know, and then I just get really, really, really worked up and then I just have to see blood to, you know, relieve my pain."* (P8:437)

The main functions of self-harm described by the officers contrasted with those of the women, as most described self-harm by the women as an intentional behaviour by which they sought to profit in some way. The most common reasons attributed to those who self-harmed were: manipulation, using self-harm to gain influence over their environment or to get attention; and learned behaviour, copying other women who self-harmed as a result of seeing the benefits they received. Only a minority of officers recognised that self-harm might be a coping mechanism, perhaps a way of dealing with strong emotions.

Most healthcare staff and governing staff were, again, more similar to the women in identifying self-harm as a method of coping and as emotional release for the women:

> *"It may well be their way of relieving that stress and that tension. Um, and though talking can be helpful, drop-in centres can be useful, seeing psychologists can be useful, it may well boil down to the fact that cutting yourself and seeing the blood oozing out is a much more visual representation of a relief of tension than talking to somebody".*
> (H3:45)

These results emphasise the similarity between the women prisoners' explanations of their self-harming behaviour and healthcare staff understanding of that behaviour. Prison officers seem to understand that there are a number of factors influencing self-harming behaviour but they do not associate this with mental distress.

Attitudes towards self-harm

Labelling of self-harm behaviours with terms such as "genuine" and "non-genuine" was common in most prison officer transcripts. The belief that most self-harm in the prison was "non-genuine" was linked with the idea that it was used to manipulate the staff or prison environment; such women were seen as being less deserving of help than the "genuine". Those prisoners regarded as "genuine" were also labelled "prolific self-harmers" (S2:11) and were thought to have a mental illness, and therefore their needs beyond the capabilities of the officers.

> *"A lot of the problems with people on here are mental health problems, which is something we can't really do a lot about."* (S4:55)

Health care and governing staff did not draw this distinction between "genuine" and "non-genuine" and showed more tolerance of the self-harming behaviour:

> *"[…] and they're not time wasting, they've done it for a reason and it's about the acceptance of that. It may not be nice and they might not like the idea of it, but we've got to accept it, people cut for a reason."* (H3:430)

The prison officers emphasised the need to distinguish between 'genuine' and 'non-genuine' self-harm to determine how the women should be treated. Healthcare staff, however, recognised that self-harm may serve an important function for these women even if the severity of the act of self-harm is apparently low.

Impact on relationship/management

Many of the prison officers reported negative feelings towards women prisoners as a result of their self-harm and that they become desensitised to it over time. They acknowledged that their attitudes could affect the way they interact with the women, their job satisfaction and their views on intervention for the women.

> *"The ones that I feel genuinely do have real problems and a genuine self-harm issue. I don't mind spending time with people who genuinely need help. I can't be doing with the time-wasters..."* (S3:376)

The women prisoners spoke positively about their care and treatment by healthcare staff, and compared this to the effect of the perceived negative attitudes of prison officers:

> *"They're cold in their voice, they're cold in the way they speak to you, they're cold as in when you're crying they just shut the door in your   face..."* (P14:371)

Healthcare staff described how they witnessed these negative attitudes:

> *"And this is a closed community in a prison, its very, very closed, it's awash with cynical, de-motivated members of staff..."* (H4:205)

Some prison officers had become desensitised to self-harm and as a result reported that they did not feel that all women prisoners who self-harm should receive an intervention. Both the women prisoners and healthcare staff commented on the negative attitudes displayed by prison officers and on the possible effects on treatment of those who self-harm in the prison. Conversely many women reported positive experiences of treatment by healthcare staff.

Discussion

Our findings suggest differences between the views of women prisoners, healthcare staff and prison officers in their understanding of the attributable functions of self-harm. Prison officers were more limited in their views of the motives for self-harm, focussing mainly on imported factors rather than the prison environment. Their attribution of motives such as manipulation and attention seeking as the main reasons for the self-harm, and failure to link it with mental distress, fits with Snow's (1997) findings, from a similar study. There was some evidence of prison officer desensitisation to self-harming behavioursby the women, and possibly of a lack of motivation to help those not considered 'genuine' self-harmers.

In contrast, healthcare staff and the governors seemed able to identify both imported and situational factors that may precipitate self-harming behaviour, and which closely matched the reasons the women prisoners gave for their self-harm. Actual reasons given were similar to those identified in the Klonsky review (2007), namely affect-regulation and self-punishment. There was evidence also, however, that some women prisoners who felt disempowered did self-harm to try and influence a change in their environment. This was interpreted by some prison officers as intentional manipulation rather than as a maladaptive form of communication from women who were unable to ask for help. These results support

previous findings (Howard League, 2001), which identified the difficulty that many prison officers have in understanding self-harm, becoming antipathetic to peple who do it. A lack of understanding about self-harm can create a barrier between officer and prisoner; it is dofficult to know the exten to which this is conscious, unconscious or truly protective for these staff. This attitude may be due to a lack in confidence in treating people who self-harm (McAllister et al, 2002), but suggests a conflict between the custodial and caring roles demanded of prison officers (Short et al, 2009).

Patterson and colleagues (2007b) suggest that antipathy in carers may increase risk of future self-harm in their patients and may adversely influence help seeking behaviour, interfering with a person's willingness to engage with services. On the other hand, the women prisoners reported more positive relationships with healthcare staff whose attitudes were reflected in their treatment of the women. This is an improvement on previously reported attitudes of medical staff in the community (McAllister, 2003; Friedman et al, 2006; Patterson et al, 2007a); it may be a result of different training experiences of these health professionals. Training is important for improvements in understanding of such behaviours and increasing accurate empathy, so increasing the sense of the women prisoners that they are understood and potentially enhancing their sense of well being (McAllister et al, 2002).

Strengths and Limitations
Our study is the first to compare views of women prisoners and prison staff in the UK, and could have important implications for prison health care nationally. Purposive sampling ensures that a wide range of views is represented. Reliability of findings was enhanced by the fact that individual coding of the transcripts was completed by four members of the team, each from a different professional background, and discussed in the research group, leading to consensus of emerging themes (Henwood and Pidgeon, 1992).

There are, however, limitations too, in that the research was conducted entirely in one prison, so the results may not be generalisable across all prisons. Further bias may arise as the study depended on volunteering for interview.

Implications for practice
 There is need for interventions which reduce self-harm by women in prison. Such interventions might be focussed on helping prison officers and women prisoners to develop more effective communication. Such women will need support to develop the capacity to manage their emotional difficulties within the prison environment. The trial in which this research is embedded is piloting a psychodynamic inter-personal therapy, adapted for use with this population. Training will be needed not only to address prison officer attitudes to, and understanding of, self-harm but also to equip them with the tools to manage it. Increased understanding of self-harm by both prison staff and women prisoners who self-harm, may improve working relationships and in turn increase more appropriate help seeking behaviours and more effective use of treatments.

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Appendix 7

Custody vs Care : Attitudes of prison staff to self-harm in women prisoners – a qualitative study

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Abstract: Self-harm rates amongst the UK female prison population are disproportionately high. Prison staff potentially have a crucial role in the identification and management of female prisoners at risk, despite this there has been little focus on the attitudes of prison staff towards female prisoners who self-harm. This paper presents such an explanation; qualitative methods were used, with semi-structured interviews with eight prison officers and five healthcare staff from one female prison in the North West. Interviews were tape recorded, transcribed verbatim and analysed iteratively, until category saturation was achieved. The data suggests that prison staff labelled self-harm as either "genuine" or "non-genuine". Women whose self-harm was perceived as "non-genuine" by staff were viewed as "rational manipulators", self-harming to achieve particular ends. Staff described feelings of resentment towards these women. Most staff reported that balancing their welfare and security functions was difficult, feeling most confident with their custody role. They described feeling untrained and unsupported in their welfare role, and pressurised due to time constraints and reported low staffing levels. This combination of factors left most staff reporting lack of confidence in dealing with women who self-harm.

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Introduction

Self-harm (including suicide attempts) is a major public health concern. It has previously been estimated that self-poisoning accounts for 170,000 presentations to hospital each year in the UK (Kapur *et al.*, 1998). More recent data for self-harm (which includes self-injury) estimated 200,000 hospital presentations a year in England alone (Hawton *et al.*, 2007). Risk of suicide increases up to 100 times within the first year following self-harm, compared to the general population (Owens, Horrocks, & House, 2002).

The Howard League for Penal Reform (2008) have reported that rates of self-harm in prison have increased by 37% in the last five years and that this is almost four times the rise in the prison population for the same period, which was just over 9.5%. It was also reported that rates among women in prison have risen by 48% between 2003 and 2007.

They further reported that in 2007 there were 22,459 recorded self-harm incidents in prison compared to 16,393 self-harm incidents in 2003. Moreover, in female prisons self-harm rates are higher than that of male prisons. The Office for National Statistics (ONS/Singleton *et al.*, 1998) reported sentenced male prisoners self-harm rates at 7% (78 out of a sample size of 1,120) and sentenced female prisoners at 10% (58 out of a sample size of 583). In 2005, despite constituting a small proportion of the prison population, 56% of self-harm incidents occurred in female prisons (Corston Report, 2007).

A substantial reduction in suicide and self-harm rates became a key objective within the Prison Service after the National Suicide Prevention Strategy for England (Department of Health) identified prisoners as a high risk group. Although there has been increasing concern over prisoner self-harm from academic commentators, prison pressure groups and the Prison Service, there has been little explicit focus on the views and attitudes of prison staff, in particular prison officers, towards prisoner self-harm and how this may inform the problem. Liebling (2000) has argued that prison staff are often either neglected or negatively stereotyped in the existing literature, where prison officers are deemed to represent 'the invisible ghosts of penality'(p. 337, see also Liebling & Price, 2000).

Rowan (1994), in relation to suicide prevention, highlights the importance of the prison officer role as: the amount of time they spend with prisoners means they may be the only staff able to notice a change in any individual prisoner's behaviour, and are likely to know about new crisis situations that the prisoner might be experiencing, which may be antecedents to an act of self-harm. Crawley (2004) also highlights that the degree of intimacy between prison officers and prisoners is great due to the amount of time prison officers spend with the same prisoners.

However, despite the potential important role of prison officers in the management of self-harm Hay & Sparks (1991) argue that they have been left unguided. This concept of role ambiguity is furthered by Liebling & Price (2001) who state that prison officers face the difficult situation of balancing all the differing complex occupational demands, playing daily roles such as supervisor, custodian, disciplinarian, administrator, observer, manager or mentor.

As well as role ambiguity prison officers may face role conflict. It has also been highlighted that many staff feel their security functions conflict with their welfare functions, with their expertise lying in their measurable custodian role (Liebling, 1992). In addition, it is suggested that the greater concern prison officers have for custody, the more they perceive themselves as being in conflict with prisoners and therefore are more likely to develop negative beliefs about them (Williams, 1983).

The vital role that prison staff, especially prison officers, play in identifying and managing those prisoners at risk of self-harm, providing the link between prison policy and practice, combined with the fact that most will experience an incident of prisoner self-harm at some point in their career, makes them an essential group in whom to explore views in order to provide a better explanation of self-harm in prison and its management.

Previous work suggests that the majority of prison staff saw suicide and self-harm as distinct problems that had their own motivating factors, with suicide seen as a despairing act. Self-harm, on the other hand was often seen as deliberate and calculated (Liebling, 1992). In Liebling's study, most prison officers felt that they could make a distinction between the two on the basis of the method used, or factors relating to the method such as extent of injury or its timing. It has been argued that prison officers tend not to see self-harm in the context of suicidal behaviour, but rather as a separate, exploitative or manipulative behaviour intended to achieve certain ends (Camilleri, McArthur, & Webb, 1999). Dockley (2001, p. 27) identified self-harm as providing emotional, physical and situational/environmental coping strategies in prison, and stated that self-harm in prison 'is not generally viewed as a rational or normal response by women to their problems or their situation'.

Parallels can be drawn between attitudes of prison staff towards self-harm and those of professionals employed in other environments, showing that prison staff attitudes may not be unique to the prison environment. In particular, there has been research on attitudes of healthcare professionals towards their patients. Friedman *et al.* (2006) investigated the attitudes of accident and emergency staff towards patients who self-harm through self-laceration and found that although they generally acknowledged self-laceration was associated with distress, 80% felt it was also about 'attention seeking' and 'manipulation'. The parallel between attitudes of prison staff and healthcare professionals may be explained by the fact that both face complex occupational demands, with McAllister *et al.* (2002) stating that healthcare professionals are often busy and confronted with competing concerns in an emotionally charged environment.

The belief that a different management response is required for different behaviours such that the genuinely suicidal women receive support while manipulators should not have their behaviour reinforced may reflect a desire amongst prison staff to differentiate between suicide attempters and those deemed manipulative (Dear, Thomson, & Hills, 2000). This belief set may lead staff to harbour feelings of frustration and anger towards those they deem manipulative and attention seeking, reinforcing the prisoner's sense of isolation and denying their need for help (Towl & Forbes, 2002). Added to this, staff responses of disgust, frustration and anger may provoke shame and confirm a woman's sense of worthlessness which may reinforce the behaviour (Pannell, Howells, & Day, 2003). Studies of healthcare professionals in accident and emergency departments have found similar results, with nurses experiencing feelings of ambivalence, frustration, distress and helplessness towards patients who self-harm and that, in turn, patients may feel rejection through the nurse's demeanour and manner (McAllister *et al.* 2002, Hemmings, 1999).

This paper explores the attitudes of prison staff to prisoner self-harm: to understand how prison staff label women who self-harm, and the implications such labelling may have for the training of prison staff. A qualitative methodology was chosen with data collection using semi-structured interviews in order to explore the views and experiences of prison staff in their own words, allowing for an exploratory approach which seeks to explore how people work and what meanings they give to actions (Bachmann & Schutt, 2003).

Methods

Interviews with prison staff formed part of a larger study, which was a feasibility study of a community-based intervention for self-harm into the prison environment (the results of which will be reported elsewhere).[i]

Appropriate ethical approval and permission from the Prison Service for the study was obtained. The fieldwork took place during 2006/07 at a women's prison in North West England that accepts sentenced prisoners, remand prisoners and young offenders.

Initial staff meetings were held to inform them of the study. The staff interviewed were recruited by a combination of being approached by two of the authors (CK and VS), and by snowball sampling.[ii] Snowballing was purposive in order to obtain a sample representing gender balance in the prison, years in service and role within the prison (discipline staff or healthcare staff).[iii] Consent was obtained in accordance with research governance guidelines. The interviews were held at a date, time and place convenient to the participants. Interviews lasted between thirty minutes and seventy-one minutes, with a mean of forty-eight minutes. All interviews were tape recorded, with the participants' consent.

The interviews focused on their attitudes towards prisoner self-harm, their job role in relation to prisoner self-harm, their views on existing prison support services and the prison regime, the needs of the women who self-harm and potential barriers to meeting these needs, as well as their views on the proposed intervention (see appendix A and B).

Participants were encouraged to develop aspects of the interview that they deemed important as well as being invited to discuss issues that they considered relevant that perhaps did not feature in the interview prompts. The interview schedule was modified as the analysis proceeded and disconfirmatory evidence was actively sought (Strauss & Corbin, 1998). Later interviews tested out the themes emerging from earlier interview data.

All interviews were transcribed verbatim and analysed iteratively throughout the interview period until category saturation was achieved. Analysis proceeded in parallel with the interviews and was inductive, taking an interpretative stance (Malterud, 2001). Coding was informed by the accumulating data and continuing thematic analysis. Analysis was conducted separately by the authors thus increasing trustworthiness of the analysis (Henwood & Pidgeon, 1992) and themes were agreed through discussion.

In reporting the final analysis the data are presented to illustrate the range and commonality of meaning from the perspectives of the prison staff.

Results

Fourteen prison staff were approached for interview. Interviews took place with thirteen prison staff, eight were prison officers and five were healthcare staff. One prison officer declined. Demographic details of the participants can be found in Appendix C.

Data from prison officer transcripts are identified by an "S" and healthcare staff by an "H", with the following number representing the order in which the participants were interviewed.

Four main themes will be presented from analysis of the staff interviews: staff perceptions of why the women self-harm; labelling of self-harm; the implications of labelling; and the occupational environment that the prison staff work in and how it affects their attitudes. We also describe staff attitudes to balancing role demands, staff training and support.

Understanding why the women self-harm

Prison staff described several reasons for women self-harming in prison. They considered that the women self-harmed as a result of "imported factors" that women brought into the prison with them and included past histories of family neglect, domestic violence, sexual abuse and drug problems:

> *"They have a lot of outside stresses and strains, not just what they've been committed to court for but also family issues and stuff".* (S2)

> *"The majority I would say are survivors of childhood trauma, um, probably sexual, physical, mental abuse as children. The majority coming from very dysfunctional families".* (H5)

The majority of healthcare staff considered that the prison environment influenced women's self-harm behaviour, in particular feelings of isolation:

> *"We are offering them a closed cell, they've got, a lot of the girls are in there by themselves, they have no one to talk through these new feelings which have come through and sometimes there's, because of, especially in the night time, there isn't any staff around to sit down and have a chat with".* (H2)

In contrast, only a minority of prison officers cited situational factors relating to the prison environment itself as influencing self-harm:

> *"It's so shocking for them in some ways, it's, it's a frightening place to be at the end of the day".* (S6)

The prison staff suggested that mental illness was a cause of self-harm, which was often associated with those women who they termed "prolific self-harmers", and from the majority of prison officers' views were the women who they felt able to help the least:

> *"You'll find for the prolific self-harmers that they've got mental issues, either been abused on the out or they've got schizophrenia, split personality disorder and that's where their self-harming comes from".* (S2)

This lack of knowledge and skills led to most prison officers having difficulties in understanding why women prisoners would self-harm:

> *"I just can't understand why someone would sit there and cut themselves and put things in their arm, why they swallow batteries, do you know what I mean? Everyone might get a bit low but I just don't understand".* (S4)

This can be contrasted to the majority of healthcare staff who reported adequate training to deal with the women that self-harmed and could also understand why the women self-harmed:

> *"I do understand why they do it and, um, to a certain level I accept that they need to do it".* (H5)

Labelling of self-harm

Some staff, particularly the prison officers, suggested that some women prisoners self-harmed in order to achieve another end. This included self-harming in order to gain something physical, often over and above what they should receive, as a response to being denied something, or as a way of receiving extra attention or time from staff. It was this category of self-harm that was seen by the majority of staff as "non-genuine" and "manipulative" self-harm:

> *"It's a way of manipulating the staff to get something they want or to get better treatment than someone else".* (S3)

> *"Some women will tell you that they will self-harm to get the attention of the nurse, to get the attention of the doctor".* (H5)

This "non-genuine" self-harm was seen by the majority of prison officers and some healthcare staff as learned behaviour, where a woman in prison would learn that self-harming would achieve results for herself and that other women would then copy this behaviour so they too would achieve results. This view was reinforced for staff when considering those women who only self-harmed whilst in prison. This, of course, assumes that the women's self-reported self-harming behaviours were reliable :

> *"The next time they want something they cut up again, because now they have learned that is the way to get things done".* (S3)

> *"There could be a lot of jealousy, if the lady in a cell next door, she could be seen to get more attention than what they are, then it could almost be like a copy cat effect."* (H2)

For some this view of learned behaviour even extended to believing that the women would compete amongst themselves when self-harming:

> *"We even used to have two who used to bounce off each other to the extent that if one set fire the other used to have to set fire and harm herself, and if she did that and we got an ambulance, the other would have to do something to get an ambulance".* (S3)

> *"It's almost as if the girls have talked amongst themselves as well, so we have times where all in one go that they would start to ... um, ligature or to cut at the same time".* (H2)

For most staff it was felt that those that they believed were "genuine self-harmers" were easily distinguishable from those they considered to be "non-genuine self-harmers" and a number of ways staff did this were described, for example, if self-harm injuries were superficial then these women were likely to be perceived by staff as "non-genuine":

> *"It won't be a real attempt at ... or anything, you can tell, just superficial scratches and things like that".* (S8)

Past experience of the individual was described as important in distinguishing between those they considered "genuine" and "non-genuine" so staff described occasions where the staff member reported being lied to in the past:

> *"A lot of them lie, there are people here who have said their father has died two or three times just to get pin credit and they say "if you don't, I'm feeling down and upset, I don't know what I'm capable of".* (S2)

The commonest feature cited by most prison staff was that those who were "genuine" would not talk to staff about their problems or ask staff for things, unlike those believed to be "non-genuine":

> *"What you tend to find is there's a, there's a clear difference. Women who self-harm as a response to not getting a decision they would like would normally tell you ... they're quite vocal with it, or in some respects will threaten you with it. Other women, genuinely who are depressed and down don't necessarily talk about it and will just do it".* (S1)

Thus self-harm was perceived as threatened or completed on the basis of achieving certain ends, being seen as a rational choice and therefore "non-genuine", whereas those that self-

harmed on the basis of imported factors, or due to mental illness were seen as not being able to stop themselves and therefore "genuine".

The implications of labelling

This labelling of self-harm as either being "genuine" or "non-genuine" had several implications for prison staff. In contrast to the majority of healthcare staff, the majority of prison officers believed that most of the women's self-harm was "non-genuine" and as a consequence these women did not have a genuine need for help and support:

> *"The ones that I feel to be genuine cases have very different needs to the ones who are messing about ... its not a genuine need for anything, its usually their need for a tobacco pack, or phone call or pin credit, or more canteen or better canteen or 'get me a job' or whatever".* (S3)

Only a minority of prison officers believed that those who were "non-genuine" were in need of support as they considered that those that self-harmed to get what they wanted were demonstrating by that factor alone that they had problems and needed help:

> *"I suppose it is a cry for help ... they do want attention because like it is saying "look I cant, obviously I can't cope. I'm having to do things to myself to get somebody to come to me, to help me out".* (S6)

The majority of prison officers felt resentful towards those they considered to be "non-genuine" and that they detracted attention, time and resources away from those women they deemed "genuine" and in need of help, as well as the other prisoners who did not self-harm. This was exacerbated by the feeling that officers themselves felt understaffed:

> *"I think you become so cynical, because you have to spend all your day giving them people attention when there's like how, however many other women that don't get any attention and it isn't, it isn't fair".* (S8)

Most prison officers and some healthcare staff reported feeling manipulated by not only the acts of self-harm by those they considered to be "non-genuine" but also by the threats to self-harm that these women would make. They felt pressurised and conditioned into giving these women what they wanted as meeting their demands was seen as a better solution than to have the women self-harm:

> *"If you don't let them out for first meds (medication) then they cut up because they know it causes you paperwork, they know it ties up two nurses, they know it stops the medication regime and all the other girls have to wait, so they try*

to condition you into thinking "well, I'll let her out first because it's easier".
(S3)

These feelings of resentment and manipulation were further exacerbated by the view of most prison officers that their decisions in relation to those women who self-harmed were contradicted and undermined by prison management, leading them to believe that their authority was not respected and that they were unsupported in their job role:

> *"Some will come up to you and ask four officers for something and we will be like "no, you're not entitled" and they will go to management and ask, management will give in and make us look like idiots by giving it to them because they threatened to cut up".* (S3)

The majority of staff described feeling blamed when self-harm incidents occurred. This led to staff being preoccupied with prison procedure and paperwork, and lacking in confidence in making decisions for the women:

> *"You just put the paperwork in, because it's a culture where you cover your back and fill in the forms. If you said "no, you're just messing about" and don't put the paperwork in and anything serious did happen you're then at the Coroner's Court and it's your fault".* (S4)

Custody vs care

Several officers described difficulty in reconciling their custody and security functions with their welfare role, with their security functions being seen as taking precedence:

> *"You can't have a prison officer being a mental health nurse as it's a conflict of interest because one minute you have to sit down and counsel them and the next minute they might throw a punch at you and you've got to put them in locks and put them behind their door".* (S2)

For the majority of healthcare staff they also experienced role conflict in working in the prison environment where security takes precedence:

> *"The most important thing is the regime and the security, um, so we have to work within the environment which is very difficult and if you've got a woman locked in her cell who's depressed and she's a self-harmer you can't always access that woman".* (H5)

Most prison officers stated that they felt untrained to deal with the women who self-harmed: while they reported receiving training in physical restraint, and preventing self-harm through observations and physical interventions, the majority did not feel adequately trained in mental health issues and therefore lacked confidence in dealing with those women they considered as having complex mental health needs. Prison officers spoke of their lack of skills to deal with the women:

> *"We're like dam busters; we patch them up and talk to them but can't counsel them".* (S2)

> *"We can safeguard them and stop them from dying because that's what we are trained for [...] but we're just not trained as counsellors to sit there and listen to their past and their problems". (S2)*

Role conflict and lack of training also impacted on staff perceptions of the occupational pressures they faced and of the support they received from management. Most staff reported feeling pressurised due to time constraints and felt understaffed. Dealing with the women who were self-harming was an added pressure onto an already pressurised environment. Prison officers in particular felt that dealing with the numerous women who self-harmed was considered to be time consuming and increased feelings of resentment, leading them to make distinctions between those who were in need of help and those who they felt were "time wasting" and "non-genuine":

> *"Because she's done this you wont be able to do that or three jobs for somebody else, so its time constraints, time consuming and yes, I suppose a little bit resentful and that sounds awful, and I probably wouldn't say it to anybody else but that's sometimes how you feel".* (S5)

Discussion

There was a clear feeling amongst most prison staff that self-harm in women prisoners could be categorised as "genuine" or "non-genuine", leading to staff cynicism and labelling of those deemed "non-genuine" as rational manipulators who were easily distinguishable from those who were "genuine" and needed support.

The concept of "non-genuine" self-harm was exacerbated by the belief by most staff that this type of self-harm was often learned behaviour, often being the explanation by staff as to why a prisoner who did not have a history of self-harm in the community now self-harmed in prison. Most staff who viewed this self-harm as learned behaviour considered that self-harm was not caused as a result of the prison experience itself and the potential impact it can have on prisoners, such as loss of family, liberty, boredom and removal of previous coping strategies the prisoner may have had in the community. Instead, most staff considered that

the women self-harmed as a result of factors that the women brought into the prison with them, consistent with Liebling's (1992) findings on imported vulnerability. This negates reports which suggest that prison 'imposes the same deprivations on individuals, some of whom will "do their bird" will relative ease … while others will endure physical and psychological torment and despair' (Coles & Ward, 1994, p. 140). Prison staff in turn must be encouraged to recognise the potential influence prison may have in inducing prisoner self-harm.

Most prison staff felt a need to distinguish "genuine" and "non-genuine" self-harm, with most feeling this was relatively easy for several reasons. They felt distinctions could be made on the basis of the severity of injury, with less serious injuries being more likely to be viewed as "non-genuine" self-harm. This supports previous findings e.g. Liebling (1992) and Snow (1997) who also found that superficial injuries were not seen by prison staff as legitimate signs of distress. However, this can be contrasted with Pannell, Howells, & Day (2003) who found that low-severity self-harm was seen by most prison staff as being significantly related to prisoner distress. In the current study staff felt they could also distinguish between "genuine" and "non-genuine" self-harm by past experiences with a prisoner where they felt they had been lied to by the prisoner on a previous occasion and would therefore not consider their current status as genuine, negating a change in the prisoner's circumstances. This is significant as Jeglic, Vanderhoff, & Donovick (2005) state that prisoners may self-harm for a variety of reasons which can include depression and suicidal intent, manipulation of the environment, emotion regulation or as a response to psychotic delusions or hallucinations. Therefore, prisoners may present at times with suicidal intent and at other times self-harm may form a different function, or even present with both suicidal intent and as a coping strategy. However, being labelled as "non-genuine" will be a label that will stay with the prisoner despite a change in the function or presentation of the self-harm and can lead to the potential of a "crying wolf" situation and, or a reduction in staff helping behaviour.

The most significant distinguishing feature cited by most staff was that those who were "genuine" did not communicate their problems and would just go and self-harm whereas those that were "non-genuine" would tell staff that they were going to self-harm, with staff feeling that this was used as means of threatening them in order to get what they wanted.

Staff distinctions of those who self-harmed as "genuine" and "non-genuine" had several implications. Most significantly the majority of staff felt that those who were "genuine" and self-harmed due to mental health problems and imported factors needed and warranted support. This was because those that self-harmed due to mental health problems were seen as not being capable of stopping themselves from self-harming and those that self-harmed due to imported factors were seen as having real problems. In contrast, those that were deemed by staff to self-harm to achieve certain ends and therefore were "non-genuine" were considered to be rationally choosing to self-harm and therefore did not have a genuine need for support.

Most staff described feelings of resentment towards those women who they considered "non-genuine" and felt that they detracted staff time and resources from those women who they perceived as "genuine self-harmers", as well as the other prisoners as a whole.

Feelings of resentment were compounded by the fact that most staff felt personally manipulated and blackmailed by the self-harm itself and the threats that some of the women would make to self-harm. Staff often felt pressurised to do what they considered was giving

in to the women's demands. This confirms Liebling's (1992) findings that self-harm was often seen as antagonistic towards staff, with some officers feeling that an inmate had deliberately injured him or herself whilst they were on duty. These feelings were exacerbated by the view of the majority of staff that their decisions were contradicted and undermined by management and that they felt blamed when self-harm occurred.

However, despite most staff labelling self-harm and appearing to have unsympathetic attitudes, the development of these beliefs are unsurprising given the occupational environment that prison staff work in. Most staff found their differing job roles complex, trying to balance their custodian skills with their welfare skills. Most felt unguided, especially prison officers, in determining what their role should be, so took on the role that they felt the most confident in, which was their security functions, and also suited their own coping needs within the prison environment. This was particularly prevalent for the prison officers who had difficulties reconciling their security functions with their welfare role. Goffman (1961, p. 71) describes this as a 'difficult weighing of ends' where staff have to maintain humane standards while also maintaining institutional efficiency. Liebling (1992, p. 220) argues that prison staff often feel their expertise lies in their measurable custodian role and that 'welfare work, rehabilitation and counselling are less readily "owned" without reservation or limitation – not because they are unwanted, but because they are tasks which have never been "given" to or uncritically accepted by prison officers'.

This role conflict ("custody versus care") can make dealing with those prisoners who self-harm a problematic issue for staff who feel unguided, uncertain and lacking in confidence, leading them to place greater emphasis on the part of their role that they are clear about – security. This focus on security can in turn lead to the development of unsympathetic views towards prisoners (Williams, 1983) and in relation to self-harm increases the need to distinguish between those who self-harm and are perceived as "genuine" and those perceived as "non-genuine".

Most prison officers, despite being at the forefront of managing the women who self-harmed, reported feeling untrained to do so which also led to a lack of confidence in their management and made it difficult for them to understand why the women self-harmed. This can be contrasted to most healthcare staff who reported adequate training and had appropriate knowledge and skills to deal with the women who self-harmed.

The combination of feelings of being untrained and unsupported from management, as well as staff feeling pressurised due to time constraints and reported low staffing levels left most staff describing a lack of confidence in managing self-harm, and feeling undervalued and unsupported.

Strengths and limitations

There are some limitations to this study, affecting its generalisability across the prison estate as a whole. The research was carried out in one female establishment, within which the focus was on a relatively small sample of discipline staff and healthcare staff, thus representing their attitudes at that present time. It is important to acknowledge that no two prisons are the same. The same can be said of the staff within them, where even those of the same grade can not be deemed to be a homogenous group. There may also be possible bias due to the use of snowball sampling where, due to the participants not being selected from a

sampling frame, participants may have proposed the selection of other participants that they know well and share similar views to themselves.

However, within these limitations this research provides a valuable insight and context for understanding prison staff attitudes towards prisoner self-harm, showing that prison staff have a complex set of attitudes towards prisoners who self-harm. This research also demonstrates that qualitative research methods, in particular semi-structured interviews, are an effective method for researching prison staff attitudes towards prisoner self-harm.

Implications for practice

In order for prison staff attitudes to change it is imperative that they receive training that encourages them to recognise the individuality of prisoners and that their responses and ways of coping within the prison environment may differ substantially. Crawford *et al.* (2003) has identified, in relation to healthcare professionals, that staff training in self-harm needs to be more systematic, with particular emphasis on addressing the misconceptions surrounding people who self-harm, particularly in regard to high-risk groups and future suicide risk. They furthered that there needs to be support networks and regular supervision for staff. Training which incorporates these aspects could be translated into the prison environment increasing staff confidence in self-harm management and encouraging positive attitudes towards prisoners who self-harm. This is especially significant as Crawford *et al.* (2003) found that staff who felt more effective in managing patients who self-harm felt less negative towards them.

Prison staff also need to feel supported by management, as 'unsupported staff will leave prisoners unsupported' (Liebling, 1998, p. 80). This is important as literature on healthcare professionals has identified that unsupported staff risk burnout, which may be reflected in deteriorating attitudes over time towards patients who self-harm (Friedman *et al.* 2006, Jenkins & Elliott 2004).

In terms of skills training, there are validated training packages such as the STORM project where training of non- mental health professionals showed improved skills in assessment and management and positive changes in attitudes and confidence (Gask *et al.* 2006).

The importance of training, confidence-building and support for prison staff can not be under-estimated as it is prison staff that determine the prison regime and quality of life for all of those in their care. Failure to appreciate and acknowledge the perspectives of prison staff will not only undermine reform attempts in relation to prisoner self-harm, but also prison reform as a whole.

Support for prison staff might also include management recognising and being proactive in tackling the increasing rates of self-harm in women prisoners. Our future research intends to develop a tailored intervention for women who self-harm in prison.

Notes

[i] "Piloting the development of a tailored intervention for women who self-harm in prison", funded by NHS National R & D Programme on Forensic Mental Health.
[ii] Snowball sampling is where participants are identified by participants who have already taken part in the study.
[iii] Purposive sampling is where participants are selected according to criteria that are relevant to the study's research question.

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Conflict of Interest
The authors declare no conflict of interest.