Understanding and Addressing Self-Inflicted Deaths in Prison Amongst Those Aged 18 – 24

Contents

Executive Summary

This review was commissioned as part of the Harris Review of self-inflicted deaths of those aged 18 – 24 in prison. The number of self-inflicted deaths amongst those of this age range in prison in England and Wales has shown an increase in recent years (MoJ, 2014). Self-inflicted deaths are defined as any death of a person who has apparently taken his or her own life irrespective of intent thus the self-harm in its various was also relevant for this review. In an effort to locate evidence about methods, interventions or approaches to working that have proven successful in reducing self-inflicted deaths amongst those in the age range 18 – 24, this report adopted a rapid-evidence approach to the academic literature. Several intervention types were identified, and broadly these can be targeted at the individual at risk of self-harm or suicide (e.g. cognitive behavioural therapy; De Silva et al., 2013), those working within the prison (e.g., increasing the mental health training of prison staff; Awofeso, 2010) or restricting the means available (e.g., use of Safer Cells; Burrows et al., 2003). Some approaches encompass more than one of these broad areas (e.g. Assessment Care in Custody Teamwork; Senior et al., 2007). While many approaches appeared to have promise, applying standard social science methodological criteria, there was limited robust evidence available on the impact of such interventions for reducing self-harm or suicide.

In order to supplement the limited evidence derived from evaluations of interventions to reduce self-harm/suicide, the literature was used to identify potential risk and protective factors to inform future approaches for those aged 18 – 24. The demographic, criminological and clinical risk factors for self-harm/suicide of those in prison have been consistently identified in a number of studies (e.g. Fazel et al., 2008; Felthous, 2011), and useful theoretical integrations of these factors have been developed (Hawton et al., 2012; Liebling, 1999). It is clear that the general experience of imprisonment (Hayes, 2009), but particularly the way prison is experienced in terms of an

individual's coping abilities (Liebling, 2012), can significantly increase the likelihood of self-harm/suicide, especially amongst those aged 18 – 24. Unfortunately, by virtue of their youth (and especially the disparity between their physical maturity and their psycho-social development) most young adults aged 18-24 have limited coping resources and their experience of prison can be particularly traumatic, often leading to despair, hopelessness and potentially self-harm/ suicide (Liebling, 2012).

Once a young adult aged 18 to 24 has been convicted of an offence, in order to reduce the risk of self-harm/suicide, diversion from custody may be more appropriate. Prison is known to have a profound impact on self-harm/suicide, but is also an established risk factor significantly increasing later reoffending and re-incarceration compared to non-custodial alternatives (Jolliffe & Hedderman, 2012; Hedderman & Jolliffe, 2014). Research has established that placing a young adult aged 18 – 24 in custody can create a revolving prison door with ever increasing risks of self-harm/suicide, reoffending and re-incarceration, all of which are profoundly costly for the individual and society in general.

Once a young adult aged 18 – 24 has been placed in prison, approaches to identify and address the needs of those 'at risk' of self-harm/suicide should be delivered. Promising approaches for reducing self-harm/suicide include identifying and addressing mental health needs (Bradley, 2009; Gavin et al., 2003), cognitive behaviour therapy (Townsend et al., 2010) and dialectical behaviour therapy (Hawton et al., 1999; Steele & Doey, 2007). As these programmes have established benefits for reducing reoffending for those in the age range 18 - 24 (Lipsey, 2009; Farrington & Jolliffe, 2002;), increased use of such interventions could slow the revolving doors of prison and the associated risks of self-harm and suicide. Importantly however, the successful delivery of such interventions is dependent on prison resources, particularly the critical resource of prison staff (Liebling, 2011, Tait, 2011). 'Healthy' prisons have dedicated and caring staff who play a crucial role in the quality of life for prisoners (Liebling, 1999; Tait, 2009), through delivering the regime with empathy and

understanding. Any successful intervention to reduce self-harm suicide and reoffending relies on engaged staff to facilitate its delivery.

Introduction

The purpose of this report was to identify interventions that had been demonstrated to reduce self-inflicted deaths of those aged 18 – 24 in prison. However, this was expanded to include those of all ages, because of the limited number of studies which focussed specifically on this age range, and also interventions demonstrated to reduce self-harm. This was because the definition of self-inflicted death could include self-harm which inadvertently resulted in death. Self-inflicted deaths in prison are defined as any death of a person who has apparently taken his or her own life irrespective of intent (MoJ, 2014)[1]. This therefore includes not only suicides, but also accidental deaths as a result of the person's own action (including self-harm). When defining self-harm, terms vary according to whether or not the person intended to kill themselves. Terms such as 'non-suicidal self-injury' (NSSI) and 'self-injury' refer to self-harming behaviour without suicidal intent. On the other hand, 'attempted suicide' and 'parasuicide' refer to self-harming behaviour where the person intended to die. The National Institute for Health and Clinical Excellence (NICE) has defined self-harm as: "self-poisoning or self-injury irrespective of the apparent purpose of the act." (NICE, 2004, p.17). NICE therefore adopt a broad definition of self-harm which could include attempted suicide and NSSI. Attempting to understand self-harm, and the function of the behaviour, is complex. Many people might be ambivalent when harming themselves and might not be sure whether they wanted to live or die. Moreover, the literature suggests that the relationship between lethality and intent is not strong; it is not reliable to focus on the lethality of the method employed to harm oneself as an indicator of whether or not the person intended to die (Dear et al., 2000).

The decision to include interventions which address self-harm is further supported by literature which suggests that there is an association between self-harm and completed suicide. Hawton et al. (1998) found that the association between suicide and deliberate self-harm was particularly strong for males aged 15-24, and this was stronger when compared to other age/gender groups. A correlation of .65 was found between deliberate self-harm and suicide among young males. It was

[1] This classification was adopted because it is not always clear whether a person intended to commit suicide

argued that although those who attempt suicide differ from those who complete it in terms of characteristics and motives, the two behaviours nevertheless overlap. Studies of self-harm are therefore also of importance when attempting to understand completed suicide.

The number of self-inflicted deaths in prison in England and Wales has increased substantially in recent time, with 88 people dying in the year to March 2014; the highest number of people dying since 2005 and a 69% increase on 2013 (MoJ, 2014). In addition, there is evidence to suggest that this increase is being disproportionately driven by the number men aged 21 – 30 (IAP, 2014). The rates of self-inflicted death for those aged 18 – 24 is considerably higher for those in prison than those from the general population (Abram et al., 2014; Daigle et al., 2006; PPO, 2014). This could be because those imprisoned possess characteristics or vulnerabilities that significantly increase their risks of self-inflicted deaths (the importation theory) or that prison has a significant negative impact an increases an individual's likelihood of taking their own life (the deprivation theory). These theories are not necessarily mutually exclusive and there is evidence in support of both (Huey-Dye, 2010).

Approach of Review

This review used a rapid evidence assessment methodology in which search terms were entered into key databases (Appendix A), and articles that appeared most relevant were obtained and reviewed. Additional strategies included searching key authors (e.g., Appleby, Hawton, Hayes, Liebling) and identifying research that had cited seminal articles such as Liebling's (1999) Prison Suicide and Prisoner Coping. This approach resulted in the identification of 143 studies (Appendix B) which varied considerably in their relevance to the goal of the current review of addressing self-inflicted deaths in prison of those aged 18-24. The studies also ranged in their methodological quality, from those that were quite high, such as Cochrane reviews of psychosocial and pharmacological treatments for deliberate self-harm (Hawton et al 1999), to those which would be considered low,

such as opinion pieces or descriptive literature reviews of previous research (e.g. Kellogg et al, 2014). Unfortunately, the studies of greatest relevance were often not those that would be regarded as the highest methodological quality.

Methodological Note

The results of the searches (Appendix B) did not identify studies that would be considered high-quality by standard social science methodological criteria (e.g., the scientific methods scale, Sherman et al., 1998[2]). The absence of high-quality evaluations is likely attributable to the considerable practical issues of conducting such an evaluation, such as the feasibility of undertaking an RCT in prison (however, see Farrington & Jolliffe, 2002), and the low numbers of individuals who die by self-inflicted deaths which would make analyses and interpretation difficult (Mills & Kroner, 2005). In addition, the lack of high quality evaluations could be because of ethical concerns such as withholding an intervention viewed by some as 'working', and the perception that any intervention offering enhanced support to such individuals would be beneficial and therefore an evaluation of effectiveness simply would not be needed (McCord, 2003).

This lack of high-quality evidence in the general domain of self-harm/suicide was specifically noted in a number of the studies reviewed (e.g. De Silva et al, 2013; Hawton et al 1999). While the information about interventions designed to reduce self-harm/suicide presented below might include the best available evidence, this should not be interpreted to suggest that these interventions will be successful. Without robust evaluation, these interventions could equally be successfully at reducing self-harm/suicide, have no impact on self-harm/suicide, or increase the likelihood of self-harm/suicide. Many well-meaning and theoretically strong interventions to reduce offending have been found to be 'toxic' and increase reoffending and other negative outcomes

[2] The scientific methods scale (SMS) is a way of classifying the quality of evaluations. For example, a randomised controlled trial, in which people are randomly allocated to receive treatment or no treatment, are allocated the highest score because these studies provide the greatest confidence that any later outcome is the result of the intervention. The SMS suggests that only evaluations which include a non-treated comparison group provides sufficient evidence to interpret the impact of a treatment.

(including early death), but it was only possible to identify these toxic effects by subjecting these interventions to robust evaluation (McCord, 2003).

Intervention Approaches Identified

Tables 1 through 3 provide a summary of the evidence from the studies that had a title or abstract which suggested that it might contain insight into an intervention to prevent self-harm or suicide either amongst those in prison or amongst young people generally[3]. Overall, 27 studies which were purported to address the prevention of self-harm/suicide in prison were identified. Of these, 16 studies were literature reviews about self-harm/suicide or reflections on professional practice (Table 1). These studies had no specific methodology, would not be judged as robust in their approach and while there was information about the country where the authors were based, often the reviews included literature from a number of countries. For example, the study of Daigle et al. (2007) included nine authors from nine different countries reflecting on practice in these different countries.

Table 1. Literature Reviews or Reflections on Professional Practice

Citation	Comments
Awofenso (2010)	Literature review. Suicide prevention in prison would be aided by **focusing on addressing the mental health needs of those in prison.**
Bonner (2000)	Literature review. Suggestion that practice and policies for self-harm/suicide in prison are not as well connected as would be desirable. However, suicide prevention programmes can be successful, but **making all prison staff responsible for prevention and providing them with the training and resources to implement their training are essential** components of any suicide prevention programme.
Daigle et al (2007)	Review of cross-cultural approaches to self-harm/suicide in prison (e.g. crisis care units in Australia, suicide screening in Canada). The UK has a comparatively comprehensive approach. **Many countries approach suicide prevention as a psychiatric or medical condition**.

[3] Obviously this includes studies which contained individuals who were aged 18 to 24, but was not exclusive to those age range.

Florentine et al. (2010)	Discusses the limitation of access to suicide methods as a way of preventing suicide in the general population. **Limiting physical access can be a useful strategy, but can also lead to substitution of methods.**
Hayes (2013)	A series of principles are presented for reducing the suicides of detained juveniles in the US. A review of architectural approaches to cell design were described.
Isaac et al (2009)	A review of gatekeeper training, defined as training which teaches a specific group of people to identify people at high risk for suicide and then to refer those people for treatment, is currently a mandated part of the suicide prevention methods employed in UK prisons. In studies of general populations **gatekeeper training has proven effective at increasing attitudes, knowledge and skills and perhaps this should be taught to families of prisoners.** Potential barriers to the effectiveness of gatekeeper training exist as potential gatekeepers need to be interested and invested in recognising the needs for suicide prevention.
Nordentoft (2011)	A review of the literature for the prevention of suicide in the general population. **Cognitive behavioural therapy and dialectical behaviour therapy are among the most promising individual interventions.**
Pelkonen & Marttunen (2003)	A review of child and adolescent suicide. Of note was the suggestion that **disturbed adolescents prefer to turn to other adolescents, not adults or professionals** when in need of help.
Pompili et al (2009).	A literature review of risk factors for self-harm/suicide. The review highlights the **importance of staff morale, their skills in interacting with difficult prisoners and staff burnout, for any suicide prevention programme.**
Roscoat & Beck (2013)	Literature review of methods to reduce suicidal behaviour amongst the general public. The authors suggest limitation of **access to lethal means, continued monitoring of those who have attempted suicide and emergency call centres.**
Rudd et al (2006)	The authors argue against the use of a 'no-suicide contract', which they suggest is not effective. Instead **a clear crisis plan should be developed with suicidal individuals.**
Sanchez (2013)	**Staff should communicate empathy to prisoners** who have been moved to administrative segregation units to reduce suicidal behaviours.
Simon (1999)	Describes the 'No-Suicide Contract' for use with those in the general population.
Stanley & Brown (2012)	Describes an innovative and brief intervention for those in the general population called the Safety Planning Intervention (SPI). This is a plan for a potentially suicidal individual in which the skills for preventing self-harm/ suicide are developed within the individual.

Steele & Doey (2007)	Describes approaches with children and adolescents in the general population. Two main models of psychotherapy, **dialectical behaviour therapy and cognitive behavioural therapy have been identified as promising treatments.**
World Health Organization and International (2007)	A review of suicide of those in prison. Ways to reduce risk specifically for young people include: **paying attention to reception and first night procedures, induction processes, and levels of care for prisoners. Provision of secure psychiatric care, the treatment of those particularly susceptible to suicide** and careful management of the transmission of knowledge that a suicide has occurred may all prevent suicides

Of the remaining 11 studies, 5 were primary research in which actual data about self-harm/suicide was collected (see Table 2), and 6 were systematic reviews (Table 3). Table 2 shows the citation, the country in which the research was conducted and a brief comment on the methodology of the study. In addition an assessment of quality was made based on whether a non-treated comparison group was included. A non-treated comparison group is a minimum requirement for linking an intervention with a later outcome (e.g. Sherman et al. 1998) and a study which does not include this group is considered to be of low quality or non-interpretable. Unfortunately, none of the studies included such a group so all were rated as being of 'Low' quality. Therefore, while each of these 5 studies might make a contribution to knowledge they do not provide strong evidence about interventions designed to reduce self-harm/suicide.

Table 2. Research Collecting Actual Data about Suicide/Self-Harm

Citation	Country	Methodology	Assessment of Quality	Comments
Burrows et al (2003)	England	Mixed-Methods	Low	This was an evaluation of safer cells in 6 prisons in England. **Safer cells tended to complement more general strategies for suicide prevention such as staff-prisoner relationship building, Listener Schemes, Samaritans, risk assessment, on-going monitoring and support**. Suicides occurred in safer cells using improvised ligature

				points.
Hayes et al (2010)	England	Pre- and post administration of questionnaires	Low	Describes the piloting of a training programme for prison officers on a risk management approach to suicide used in the NHS. Four modules were delivered (risk management, crisis management, problem solving and crisis prevention) to staff at 3 male prisons and 1 YOI. This evaluation showed that **changes in attitude to suicide prevention, knowledge of suicide risk and confidence in meeting the needs of those in crisis can be improved**. The actual impact that these changes had on practice, however, was unknown.
Junker et al (2005)	US	Pre- and post observation		This research suggested that inmate observers significantly reduced the number of hours of constant observation needed for potentially suicidal inmates and postulated mechanisms for this outcome (e.g. reduced attention of staff as some individuals might be manipulators). However, the methodology of this study in which number of hours of suicide watch 12 weeks before the introduction of inmate observers was compared with 12 weeks after, is far too weak to justify such conclusions. The results of this research could equally be explained by differences in the morbidity of the individuals who required constant observation in the 12 weeks before and 12 weeks after the introduction of inmate peer observation.
Liebling et al (2005)	England	Mixed-Methods	Low	This was an evaluation of a series of initiatives to reduce self-harm/suicide in a five of male local prisons. The intervention included new reception and induction

				facilities, improved reception screening, drug detoxification centres, safer cells, care suites, and improved interviewing space. Increased mental health in-reach support was also provided in most of the study prisons. New staff posts – full time Suicide Prevention Coordinators and Project Managers – were dedicated to the coordination and implementation of this work. **Overall the initiatives were *perceived* as successful.**
Senior et al (2007)	England	Descriptive Research	Low	This study compared prisoners specifically identified as a suicide risk (on F2052SH) to the general prison population. Those identified were generally more extreme (greater depression, anxiety, more psychotic symptoms), but 12% of the general population had high levels of suicidal ideation and were not identified by prisons as being at risk. **When support plans were scrutinised the authors found significant deviations from policy.** For example, in only 19% of cases were specific ameliorative actions delegated to named individuals.

Table 3 shows the five systematic reviews of self-harm suicide that were identified. While all were found to include young people (age 10 – 25) only one of the studies (Townsend at al., 2010) was based on those of this age range in prison. Only the review of Hawton et al. (1999) included meta-analyses, or a statistical summary of the quantitative results. These suggested that anti-depressants and dialectical behaviour therapy were statistically significantly associated with a reduction in repeated self-harm, however, the small number of trials which used these interventions suggested that these results should be considered very cautiously.

Table 3. Systematic Review of Self-Harm/Suicide

Citation	No. of Studies Incl.	Prison	Age Range Covered	Comments
De Silva et al (2013)	43	No	6 – 25	Identified research literature relevant to the treatment of self-harm/suicide for young people. Relevant to the current study, **there exists very little high quality evidence on the methods to prevent self-harm/suicide, but individual cognitive-behavioural therapy is promising**.
Gould et al (2003)	45	No	10 – 19	Systematically reviewed the literature on youth suicide in the general population. **Dialectical-behaviour therapy, cognitive behaviour therapy and treatment with anti-depressants were identified as promising treatments** but have not yet been tested in randomised controlled trials.
Hawton et al (1999)	23	No	All ages included	A systematic review of psychosocial and pharmacological treatments for deliberate self-harm. A total of 23 trials were identified, but the evidence was not strong. There was some evidence to suggest that **dialectical behaviour therapy and problem solving therapy might reduce self-harm.**
Robinson et al (2013)	46	No	14 -19	A systematic review of school-based interventions to prevent suicide-related behaviours. A total of 43 studies were identified. **The most promising interventions were gatekeeper training and screening programmes,** but much more research is needed.
Robinson et al (2011)	21	No	12 -25	A systematic review of methods of preventing suicide and self-harm of young people. No differences were found between treatment and control groups except in **one study that found a difference between individual cognitive behavioural therapy and treatment as usual.** The evidence regarding effective interventions for adolescents and young adults with suicide attempt, deliberate self-harm or suicidal ideation is extremely limited.

Townsend et al (2010)	3	Yes	14 – 19	A systematic review of data from randomised controlled trials relevant to young offenders experiencing mood disorders, anxiety disorders or self-harm. A total of 10 studies were identified and based on three in which data was available (172 individuals) **group based cognitive behavioural therapy was noted to be potentially helpful in reducing depression**

Some common themes could be derived from the studies included in Tables 1 through 3. These included:

- The importance of identifying and addressing the mental health of those identified as 'at risk' for self-harm/ suicide.
- Cognitive-behavioural treatments (CBT) and dialectical behaviour therapy (DBT) are promising approaches for young people.
- The importance of skilled and motivated staff who can identify individuals 'at risk' of self-harm/suicide (gatekeepers), and deliver regimes with empathy to those in prison.

However, the relatively limited pool and quality of evidence suggests that these themes should be considered cautiously.

Risk and Protective Factors for Self-Inflicted Death in Prison of Those Aged 18 – 24

The research literature reviewed (Appendix B) provided only limited empirical evidence about 'what works' to reduce self-inflicted deaths of those aged 18 – 24 in prison. In order to supplement this, the risk and protective factors for self-harm/suicide within these studies was reviewed. A risk factor is a variable that is associated with an increased probability of self-inflicted death. For example, being male is a risk factor for self-inflicted death in prison (e.g. Shaw et al., 2013). A protective factor is a variable associated with a decreased probability of self-inflicted death. For example, strong family relationships are a protective factor for self-inflicted death in prison (Harvey, 2007). In addition, risk and protective factors can be static (i.e., the factor cannot change, such as gender) or dynamic (the factor can change, such as levels of despair). Identifying the static risk and protective

factors for self-harm/suicide will identify those 'at risk'; identifying the dynamic risk and protective factors can be used to develop interventions to reduce the risk of self-harm/suicide.

Table 4 shows the risk and protective factors that were identified in the literature as being associated with self-harm/suicide. The information about these risk factors comes from the studies in Appendix B, but particularly Abram et al. (2014), Camerilleri & McArthur (2008), Daigle et al. (2007), Daniel (2006), Daniel & Flemming (2006), Fazel et al., 2008, Felthous (2011), Hawton et al (2012), Hayes (2012), Humber et al. (2011), Huey-Dye (2010), Liebling, 1999, Morgan & Hawton (2004), Pompili et al. (2009), PPO 2014, Rivlin et al. (2012), Steele & Doey (2007) and Towl et al. (2002). In some studies (e.g. Fazel et al., 2008; PPO, 2014) risk factors were transparently measured and compared to later outcomes (self-harm/suicide), but in others (e.g. Felthous, 2011) the risk factors from previous research were presented and it was not always clear how robust these associations were.

Table 4. Specific Factors Associated with Self-harm/Suicide (both within and outside prison) in the Literature and whether they are Static or Dynamic

Overarching Factors	***Static (S) or Dynamic (D) Risk***	***Imported Vulnerability (I), Prison Environment (PE).***
Genetic and Biological Factors		
Family history of suicide	S	IV
Gender (male – suicide, female – self-harm)	S	IV
White Ethnicity	S	IV
Young Age	S	IV
Psychiatric Disorders		
Active psychotic disorders	D	IV, PE
Personality disorders, especially borderline personality disorder and antisocial personality disorder	D	IV, PE
Depressive Disorders	D	IV, PE
Co-morbidity	D	IV, PE
PTSD	D	IV, PE
Anxiety Disorders	D	IV, PE
Past psychiatric treatment (psychotropic medication)	S	IV
Negative life events or social problems		
Guilt associated with offence	D	IV

Trauma of criminal justice process	D	IV
Low Socioeconomic status	S	IV
History of Homelessness	S	IV
History of Sexual or emotional abuse	S	IV
History of Poor parenting	S	IV
Relationship disintegration	S	IV, PE
History of Low educational attainment	S	IV
History of Substance misuse	D	IV
History of Local authority care	S	IV
Aggression/Impulsivity		
Aggressive behaviour (bullying others)	D	IV, PE
Impulsivity	D	IV, PE
Low Optimism		
Attributional style	D	IV, PE
External locus of control	D	IV, PE
Psychological Distress and Hopelessness		
Uncertainty about future (in prison – remand status, life sentence[4], first incarceration)	S	PE
Parole refusal	S	PE
Unexpected sentence	S	PE
Poor coping abilities	D	IV
Prone to loneliness	D	IV
Prone to boredom	D	IV
'Unhealthy' prison[5]	D	PE
Meaningful relationships with staff	D	PE
Physical or psychological isolation (segregation, single cell)	D	PE
Bullied by staff or inmates	D	PE
Exposure to Self-harm/Suicide		
Contagion or clustering, especially with younger people	D	PE

It is important to note that even though the risk and protective factors are presented on the same table there is considerable variation in the evidence linking specific factors to self-harm/suicide. For example, the finding that prisoners of White ethnicity are at an elevated risk was found in a number of studies, as was the association between psychiatric symptoms and later suicide (e.g. Fazel et al., 2008). However, the finding that Parole refusal was associated with an increased risk was mentioned

[4] The finding that those on remand and those on life sentences are at an increased risk of self-inflicted death (Fazel et al., 2008), could be an artifactual finding driven by the 'snapshot' research approach.

[5] An 'unhealthy' prison is one with poor communication (between staff and prisoners, between different departments in prisons), poor staff morale, and where programmes and courses do not run as planned (Liebling, 1999).

in a description of potential risks without clear evidence (Liebling et al, 1999). All factors have been included on the same table as a comprehensive self-harm/suicide prevention approach should be aware of as many potential risks as possible, regardless of the quality of past evidence.

Table 4 also includes a preliminary assessment of whether the factor is likely to be static (cannot be changed at the time the person is present) or dynamic (can be changed). The purpose of this classification was to assist in the consideration of with whom to intervene (static factors) and how best to intervene (dynamic factors), but given that young adult prisoners typically possess many of these factors (e.g. Abrams et al., 2014; PPO 2014) it might be more appropriate to consider all prisoners 'at risk' and to encourage continuous monitoring of these individuals by staff so that those young adult prisoners judged to have few risk factors are not neglected and end up 'falling through the cracks'.

Table 4 also contains a preliminary assessment indicating whether the factor could be one the individual brings with them into prison (imported vulnerability) or one that the prison environment may have an impact on (prison environment). This classification was intended to be illustrative of the fact that many people enter custody with considerable pre-existing risks for self-ham suicide, but also that the experience of prison can increase these risks and add additional risk domains. However, there is not a clear distinction between imported vulnerability and factors brought on by the prison environment. For example, an individual could enter custody with active psychotic symptoms which is known to increase the risk of suicide (Daigle et al., 2007), but psychotic symptoms can also be elicited by custody, especially in segregation (Sanchez, 2013). Similarly, a relationship breakdown increases the risk of self-harm/suicide (Liebling, 1992) and this could happen for a multitude of reasons associated with custody (e.g., the physical separation), but this could also happen regardless of the custodial experience. Whether a factor is imported vulnerability or caused by the prison environment those responsible for the care and wellbeing of these individuals need to

be aware of these factors and consider approaches to mitigate the impact of these. Appendix C presents a figure illustrating how many of these factors might link together.

While the factors listed in Table 4 have been identified for all prisoners, it is also necessary to reflect upon the individual as well as systemic factors in an attempt to understand such complex behaviour specifically for younger adult prisoners. From the review of the literature, a young adult's 'risk status', or their likelihood of completing suicide or harming themselves, is dynamic and influenced by numerous individual factors (e.g., coping, active symptoms of psychiatric illness, insomnia), environmental factors within the prison (e.g., prison regime, quality of relationship with prison staff, bullying), environmental factors outside the gates (e.g. relationships with significant others, impending court dates; Liebling, 1999) and the availability of means to undertake self-harm/suicide (e.g. ligature points).

Within the extant literature, it is evident that 'postdictors' (as opposed to predictors) for self-injurious behaviour(s) are more prevalent. This is due to the research design of studies which ask about self-harm or suicide after the behaviour has taken place, rather than prospectively, over time. Indeed, Lohner and Konrad (2006; 381) stated that "retrospective studies remain a necessary evil". However, this methodological issue can result in confusing the strength of an association between a risk factor and its usefulness as a method of intervention. For example, based on retrospective data of successful suicides, the research is clear in showing that previous suicide attempts are strongly related to subsequent successful suicides (e.g. Felthous, 2011). However, if a study was to examine those who attempted suicide only a very small proportion would actually go on to commit suicide (e.g., Rivlin et al., 2012). Therefore, communicating to staff that those who attempt suicide are at a significantly increased risk of future suicide may be an accurate reflection of the research, but of relatively little practical use for identifying those who are actually likely to commit suicide in the future.

The evidence suggests that young people who harm themselves in prison enter prison with more vulnerability than individuals who do not harm themselves (i.e. they are more likely to have received

psychiatric treatment, to have self-harmed in prison in the past, to have self-harmed outside prison, and to have a substance misuse problem prior to coming to prison) (Liebling et al. 2005; Harvey 2007).

Indeed, research has highlighted that mental health problems are a risk factor for self-harm in prison. Marzano et al. (2010), although focusing on adults in prison, found that that near-lethal suicide attempters were significantly more likely than controls "to have multiple than single psychiatric diagnoses" (p. 224). The most common psychological difficulties were post-traumatic stress disorder (PTSD), substance misuse and anti-social personality disorder. Moreover, they found that "symptoms of one disorder may mask or exacerbate symptoms of co-morbid disorders, in turn potentially complicating treatment in an already difficult-to-treat group" (Marzano et al., 2010: 224). However, although we know that prisoners import with them a range of psychological and social difficulties, we know less about the extent to which these problems become exacerbated and maintained by the stressful prison environment. The research by Liebling (1992, 1999) helps shed light on the interaction between the individual and the environment, and specifically in relation to self-harm.

Liebling's (1992) research was first to highlight the significant role that coping and the prison experience had on the suicidal behaviours of prisoners. This research departed from previous prison suicide studies in that it involved interviewing prisoners (male, female, young and adult) who had attempted suicide, comparing them with those who had not. Previous studies had focused on completed suicides, seeking to identify predictive risk factors and attempting to construct a suicidal inmate profile from official documents and case records (Topp 1979; Burtch and Ericson 1979; Danto 1973). Liebling (1992) argued that relying solely on administrative data about suicide was problematic due to bias, incompleteness and inaccuracy. Moreover, there often was not an adequate comparison group.

Although some factors are similar to those listed in Table 4 (based on those of all ages in prison) Liebling (1992) found that young males (aged 18-20) who had attempted suicide:

•had fewer qualifications

•were frequent truants

•had been involved more in violence at school

•were more likely to be a victim of bullying

•were more likely to be in local authority care

•were more likely to have received psychiatric treatment

•were more likely to have injured themselves before coming to custody

•were more likely to report alcohol and drug problems.

•had experienced a higher level of family violence

Criminal justice variables revealed few differences between attempters and non-attempters, except that suicide-attempters had slightly more pre-convictions than the control group and were more likely to return to custody within a few weeks of release. However, the greatest difference to emerge was in relation to how both groups experienced prison life. Those who had attempted suicide were:

•less likely to describe their fellow inmates as friends

•more likely to have difficulties with other prisoners

•less likely to have contact with the probation service

•less likely to receive visits, wrote fewer letters, kept in touch with people less and missed specific people more

• more likely to spend time doing nothing in their cells

•more likely to be averse to physical education

•more bored and daydreamed more

• experiencing greater problems sleeping at night

•having complaints about the disciplinary system

•finding the experience of imprisonment more difficult

Suicide in prison amongst young adults seemed to be "to a large extent a problem of coping" (Liebling 1992: 236). Liebling (1992:2012) concluded that "imprisonment is directed at vulnerable groups" and that "these groups are expected to undergo an experience whereby the demands made may exceed the resources available. The result: pain; the outcome: excessive suicide rates" (Liebling 1992: 184). Further research has also found that young adults who self-harm experience higher levels of distress and more difficulties coping and adapting compared to those who have not self-harmed (Haines and Williams, 1997; Biggam and Power 1999a, 1999b; Inch et al. 1995; Harvey 2007). Indeed, Inch et al. (1995) concluded that, "the common thread linking almost all the acts of self-harm in our study [of young people aged 16-21] was a desperate desire to escape from a situation which had become intolerable and which had overwhelmed the coping mechanisms of the individual concerned' (Inch et al. 1995: 168).

The work of Diana Medlicott (2001), although not specific to young adults aged 18 – 24, is also important to consider. In this work the author used disciplined empathy in undertaking in-depth interviews with a group of prisoners who had self-harmed to evaluate how far their conceptualisation of time, place and space and self, had influenced their suicidal behaviour. It was suggested that common institutional responses to self-harm such as movement to a medical wing are not effective at addressing many of the key underlying issues that result in this outcome. Medlicott (2001) contends that the 'austerity in prisons', or the mind set of prison officials that life in prison should by definition be less good than outside the prison gates and 'punitive attention' (only paying attention to prisoners as issues of security) greatly contributed to an increased likelihood of self-harm. In order to address these structural impediments it was suggested that attention (in the form of disciplined empathy), care and talk should be adopted as a strategic way of working with all prisoners. These features must form part of a shared cultural reality between prisoners and staff, particularly vulnerable prisoners.

Monitoring the Risk Factors for Self-Inflicted Deaths for those aged 18 – 24

As previously mentioned, many of the factors that have been associated with an increased risk of self-harm/suicide amongst 18-24 year olds in prison are dynamic, changeable and/or situationally influenced. It is therefore desirable to closely monitor all young adults aged 18-24 in prison and to assess potential changes to these factors as and when they might arise. This on-going evaluation of a prisoner's wellbeing could range from being a stipulated aspect of a multi-disciplinary intervention resulting from a risk assessment being undertaken (such as an Assessment Care in Custody Teamwork document or ACCT being completed) to regular behavioural observations and empathic questioning by prison officers (e.g.,' how are you feeling today?'). It has been argued by a number of researchers that even this most basic level of observation and monitoring, especially when delivered by a prison officer who is viewed to be caring, can itself be a very effective method for reducing the risk of self-harm/suicide (Harvey, 2007; Liebling, 2011; Tait, 2011).

Mental Health Screening Tools

It is well established that those in prison have a higher prevalence of mental illness than those in the general population and further, that mental illness significantly increases the risk of suicide/self-harm (e.g., Bradley, 2009, Senior, Appleby & Shaw,2014; Skuse, 2014). It is therefore of critical importance to identify those in prison with mental illnesses and further provide appropriate treatment (Bradley, 2009). It is well known that there are generally poor rates of detection of mental illnesses in prison and as a result a number of mental health screening tools have been developed to assist in this identification (Martin et al., 2013). In their systematic review of mental health screening tools in correctional institutions Martin et al (2013) identified 24 studies in which 22 different mental health screening tools were used to identify mental illnesses amongst those in prison and also had an independent assessment of mental illness. However, most of the screening tools had been used in US jails with adult male prisoners. There were however three tools that had

been developed and used in the UK (Birmingham et al., 2000; Grubin et al., 2002; Gavin et al., 2003[6]).

Gavin et al. (2003) implemented a four-item screening questionnaire for adult males entering a local prison. These were:

1. Is the inmate charged with homicide?
2. Has the inmate ever received treatment from a psychiatrist for any form of mental health problem (not including treatment only in prison or one-off assessments)?
3. Has the inmate ever received antidepressant or antipsychotic medication (outside prison only)?
4. Has the inmate ever deliberately harmed himself

The results suggested that 33% of those entering the prison over a 15 week period scored at least one on the screening tool, and of those scoring at least one for who it was possible to interview 56% were recommended for further mental health assessment or mental health treatment. The extent to which these findings might be applicable to those aged 18 – 24 is unknown.

Unfortunately, there is further evidence that services to support those with mental illnesses in prison may be lacking (e.g. Bradley, 2009). For example, in a study conducted in six prisons in England only 25% of those with a serious mental illness (defined as major depression/ bipolar disorder/ any form of psychosis) were assessed by an in-reach team within a month of reception into custody. Similarly, only 13% were actually accepted onto in-reach team caseloads for ongoing treatment (Senior et al., 2013).

Addressing the Risk Factors for Self-Inflicted Deaths for those aged 18 - 24

Based on a holistic view of the factors associated with an increased risk of suicide self-harm (Table 4) and the overview specific to young people provided by Liebling (1999; 2012) it is clear that addressing the risks posed by these factors could reduce the psychological distress and hopelessness that is either imported into, or exacerbated by, how prison is experienced. As previously reviewed in

[6] While there were three tools identified in the review these are actually refinements of the same overall approach.

Tables 1 through 3, these range from identifying and treating those who have mental health needs, to providing specific interventions such as dialectical behaviour therapy or cognitive behaviour therapy (Townsend et al., 2007). In addition to the specific interventions identified, many of the factors, whether they are imported vulnerability or related to the prison environment could be addressed by 'healthy' prison regimes (Liebling, 2012). Healthy prisons are those in which:

- there is little bullying,
- prisoners are encouraged to make constructive use of their time,
- there is good communication between prisoners and staff resulting in engaged relationships,
- there is consistent regimes in which offending behaviour programmes and education and employment courses are consistently run (not cancelled at the last minute)
- there is good inter-departmental communication within the prison.

Research has suggested that prisons with these characteristics tend to have fewer self-inflicted deaths (Liebling, 1999) and therefore greater efforts to replicate past successful approaches in this domain (e.g., Liebling et al. 2005, see Table 2) might be desirable.

The Keppel Unit at HMYOI Whetherby, although for those aged 15 – 17 might be a useful model to consider for those aged 18 – 24. This unit which opened in 2008 is designed to provide a safe and supportive environment for some of the most challenging and vulnerable young people (aged 15 - 17) in the country whose needs cannot be met in the mainstream prison system. Physically the Keppel unit is a less institutional environment (e.g. no bars on the windows) and is staff by specially recruited and trained staff who make up the multi-disciplinary team (including prison officers, senior officers, caseworkers, education staff, healthcare professionals, mental health care professionals, substance misuse staff and physical education staff). In a review of the effectiveness of this unit the staff turnover was noted to be small (Cordis Bright, 2011). The unit was characterised by high staff-young person ratios and the relationships between young people and staff was positive. Specifically young people noted that staff had been more likely to take time to engage you in activities, more

likely to help you quickly, and able to help for longer (Cordis Bright, 2011). The caseworkers were also noted to have gone to extra lengths to aid family contact. This unit has been consistently praised by inspectors who noted that good working practices have been embedded in the working environment and that most young people (aged 15 – 17) have responded positively to their experience of the Keppel Unit (MoJ, 2014)

Psycho-Social Development of Young Adults Aged 18 – 24

One of the key factors that could significantly increase the vulnerability of those aged 18 – 24 compared to older individuals in prison is their relatively lower levels of psycho-social development (see Figure 1 in Appendix C). It has been argued for example, that younger individuals have less mature judgement, poorer emotional regulation, poorer self-regulation, poorer decision making abilities, poorer reasoning capacities and poorer planning skills (Losel, Bottoms & Farrington, 2012). While some young people may have developed an adequate level of all of these psycho-social skills by age 18, or the age at which they are considered 'adults' in the eyes of the law, there is evidence to suggest that in most young people the development of these skills is not achieved by age 18, but continues to develop up to about age 25 (Arnett, 2000; 2007). In addition, there is neuropsychological evidence of continued brain development in the frontal lobe area (associated with executive functioning and abstract reasoning) up to age 25 (Callum, 2007). If a young person lacks these psychosocial skills this could contribute to an increased likelihood of self-harm/suicide through the increased impulsivity, increased risk taking and aggressive behaviour/bullying (e.g., Table 4 and Hawton, 2012).

Given that young people age 18 – 24 may have lower levels of psycho-social development, there have been recent calls to change the legal treatment of young adult offenders (Barrow Cadbury Trust, 2005) with sentencers being encouraged to base their sentencing decisions on the psychosocial maturity of the offender and not necessarily their age (Losel, Bottoms & Farrington, 2012). This has included calls for the National Offender Management Service to provide an

assessment of an offender's maturity to the court (Losel, Bottoms & Farrington, 2012). Lastly, there should be a presumption in favour of diversion against custody for young adult offenders. This suggestion is based on the profound negative impact that prison can have on a young adult's likelihood of self-harm/suicide (e.g., Harvey, 2007), but also the negative impact that prison can have on a young adult's likelihood of reoffending.

Impact of Prison on Reoffending

From the review of the literature on the prevention of self-harm/suicide and an assessment of the risk and protective factors for self-harm/suicide there is clearly evidence to suggest that using prison as the disposal of last resort would reduce self-inflicted deaths of those aged 18 – 24. In addition, using prison less often may also have a desirable impact by reducing later levels of reoffending. For example, there is considerable evidence from numerous high-quality prospective longitudinal studies to show that young people, even those with many risk factors for offending, naturally 'grow out of crime' by the age of 25, which corresponds closely with the age of attaining full psycho-social development (Farrington et al., 2008; Losel, Bottoms & Farrington, 2012). Furthermore, high-quality research has demonstrated that the experience of prison significantly increases the likelihood of reoffending and particularly re-incarceration for both males and females compared to non-custodial alternatives (Hedderman & Jolliffe, 2014; Jolliffe & Hedderman, 2014). In both of these studies individuals who were sent to prison were matched on all measured variables (e.g., age at first offence, number and type of previous offending, etc.) to those who received a non-custodial alternative. The results suggested that in the follow-up period, those who went to prison committed significantly more and more serious offences than those who did not go to prison. In addition, those who originally went to prison were over six times more likely than those who received a non-custodial alternative to be back in prison within a year.

Cumulatively, these results suggest that using prison for young adults could actually interrupt normal non-offending development, while increasing the likelihood of exposure to the risks of self-harm/suicide in prison. As incarceration significantly increases the risk of future re-incarceration

placing a young person in prison essentially creates a revolving prison door with ever increasing risks of reoffending, self-harm and suicide.

Reducing Both Self-Harm/Suicide and Reoffending

One method to reduce both self-harm/suicide and reoffending would be to reduce the use of prison for young adults. However, given that policy makers continue to include the use of imprisonment as a key criminal justice policy approach, it is essential to identify methods to address the needs of the vulnerable young adults who are incarcerated. The evidence on the prevention methods and a review of the risk factors for self-harm/suicide highlighted a number of important areas which included ensuring that those who have mental health needs are adequately identified and treated, and that cognitive-behavioural therapy and dialectical behaviour therapy are provided. In addition to their efficacy in addressing self-harm/suicide amongst young adults, however, there is also evidence that these approaches can contribute to a reduction in reoffending.

The most thorough review of the effectiveness of interventions with young offenders (including young adults) was conducted by Lipsey (2009), in which he amalgamated the findings of 361 research reports (and 561 separate studies). Lipsey (2009) identified cognitive-behavioural therapy as one of the most effective methods for this age group with reduction in reoffending of around 20% compared to those who received no intervention. Although much of the evidence for the success of cognitive behavioural programmes derives from studies conducted in the US, there is evidence that these programmes can be equally effective for reducing reoffending in the UK (Koehler et al., 2012), and that these benefits can be long lasting (up to 10 years after release; Jolliffe et al,. 2014). Similar results have been identified for dialectical behaviour therapy with those young people receiving the intervention showing reduced likelihood of reoffending and reduced seriousness of reoffending (Lee et al., 2102).

While many young adults might benefit from these types of interventions, reviews conducted by Hopkins & Brunton-Smith (2014) for the Ministry of Justice suggested that many offenders may not

actually receive such interventions. Generally, these programmes tend to be delivered more commonly and to greatest effect in prisons that operate 'healthy' regimes (Liebling, 2012). These are regimes that provide activity, opportunities for change, contact, and support which may offset some of the worst aspects of prison life (Liebling, 1999). It has been suggested that these organisational and relational aspects of prison (such as how prisoners are treated, how staff "deliver" regimes, etc.) are essential elements for motivating young adults to undertake such programmes and providing them with the opportunities to practice the skills they have learned.

A very significant, if not the most significant, component of a 'healthy' regime is the quality of the care provided by prison staff (Liebling & Tait, 2006; Tait, 2009). In her research of staff-prisoner relationships, Tait (2009: p5) noted that

> 'caring interactions by prison staff were founded on relationships characterised by respect, fairness and sociability. Prisoners described these officers as communicating 'on a level' with them. This included daily civilities, like saying 'good morning', casual conversation about family, sport, or the local area, and physically integrating with prisoners (playing pool, chatting on the wing). Caring officers demonstrated institutional empathy, or an appreciation of the structural constraints faced by prisoners (for example, overcrowding, canteen problems, and failing systems for contacting family and friends). These interactions communicated to prisoners that these officers viewed them as of equal moral worth and status'.

These caring relationships could have a desirable impact and reduce self-harm/suicide amongst prisoners by mitigating the negative impact of prison and supporting offenders' coping abilities (Tait, 2009). Care is an important concept to place at the heart of prison officer work, but it is unclear how far prison officer training facilitates the learning of these caring skills. For example, a parliamentary report on prison officer training observed that many important features of prisoners (e.g. mental health and substance abuse) were insufficiently covered in the basic training of prison officers

(House of Commons, 2009). In this report it was suggested that only half a day of the initial prison officer training was spent covering mental disorders and that officers entered the job feeling unprepared to deal with such issues.

Prison staff who are poorly trained, especially regarding the identification of mental health issues, and those who have difficulties managing challenging, but vulnerable individuals, can have a toxic effect on the delivery of regimes (Pompili et al., 2009). Many young prisoners are resistant to conventional approaches and may be perceived by less skilled staff as manipulative, provocative, unreasonable, overdependent and feigning disability (Pompili et al., 2009). This may result in a hostile attitude by the staff member towards the young adult and a lower level of support, leading to feelings of alienation in the young person. When working with such challenging individuals it is important to consider the impact of work stress and burnout (Liebling & Tait, 2006). Stressed and burnt-out staff are less able to function appropriately in preventing suicide (Pompili et al., 2009).

Conclusions

The aim of this review was to identify interventions demonstrated to be effective for reducing self-inflicted deaths of those aged 18 – 24. However, the available literature suggested that there was very little robust evidence on which to base decisions about which approaches might be best. The absence of high-quality evidence, especially the lack of randomised controlled trials, was noted in a number of studies reviewed (e.g., Hawton et al., 1999), and suggests that the claims of studies purporting successful interventions to reduce self-harm/suicide should be considered very cautiously. The results suggested that identifying and treating the mental health needs of prisoners, cognitive-behavioural therapy, dialectical behaviour therapy and skilled staff to deliver these approaches are important for addressing self-harm suicide.

Because of the limited research on interventions the same literature was used to identify the potential risk and protective factors for self-harm/suicide of prisoners with the aim of identifying factors that identify those individuals more at risk (static risk factors) and what can be done to

reduce risk (dynamic factors) . This approach also highlighted that fact that many of risk factors can be imported by the individual as they enter custody (imported vulnerability) and some are created by the prison environment. A great number of risk factors (with varying levels of evidence) were identified, but the distinction between static, dynamic, imported vulnerability and prison environmental risk factors was not always clear, and furthermore, classifying the risks in this way might distract from the overall finding that young adult prisoners are all at an elevated risk and would likely benefit from constant monitoring.

Young adult prisoners age 18 – 24 might be at particularly elevated risk of self-harm/suicide because they have not yet attained full psycho-social development, a stage that naturally develops around age 25 (Loeber, Bottoms & Farrington, 2012). Young people with lower levels of psycho-social development might be more impulsive, have poorer planning skills and lack emotional regulation, all of which might make the experience of custody unbearable. Therefore, one of the best methods to reduce self-harm/suicide amongst young adults would be to use prison as the disposal of last resort. In addition to reducing the risk of self-harm/suicide, there is also considerable evidence that using non-custodial alternatives would also reduce reoffending (Jolliffe & Hedderman, 2012).

When young adults are in prison however, ensuring that the mental health needs of such individuals are identified and addressed, and using cognitive-behavioural and dialectical behaviour therapeutic approaches appear the most successful. The additional benefit of adopting these approaches to address self-harm/suicide is that they all have been demonstrated to reduce reoffending in young people (Lipsey, 2009). Lower levels of reoffending will see fewer young people exposed to the prison environment and the associated increased potential for self-harm/suicide.

A key component of the delivery of these types of interventions to address both self-harm/suicide and reoffending is a 'healthy' prison in which to deliver them. 'Healthy' prisons or those with good communication and a 'caring' relationship between prison officers and young adult prisoners are themselves based on high-quality, engaged and highly trained staff (Tait, 2009). There were

however, concerns that this training may not always be sufficient, especially given the complex nature of many young adult prisoners.

References

Abram, K. M., Choe, J. Y., Washburn, J. J., Teplin, L. A., King, D. C., Dulcan, M. K. & Bassett, D. (2014).Suicidal Thoughts and Behaviors Among Detained Youth, Office of Juvenile Justice and Delinquency Prevention: US Department of Justice: Washinton DC.

Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for?. Child Development Perspectives, 1, 68–73.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. American Psychologist, 55, 469–480.

Awofeso, N. (2010) Preventing suicides in prison settings – the role of mental health promotion policies& programs. Advances in Mental Health, 9, 12 – 19.

Barrow Cadbury Trust (2005). Lost in Transition. London: Barrow Cadbury Trust.

Biggam, F.H. & Power, K.G. (1999a). A Comparison of the Problem-solving Abilities and Psychological Distress of Suicidal, Bullied, and Protected Prisoners. Criminal Justice and Behavior, 26, 196-216.

Biggam, F.H. & Power, K.G. (1999b). Suicidality and the State-trait Debate on Problem Solving Deficits: A Re-examination with Incarcerated Young Offenders. Archives of Suicidal Research, 5, 27-42.

Birmingham L, Gray J, Mason D, Grubin D. (2000). Mental illness at reception into prison. Criminal Behaviour & Mental Health 10:77–87.

Bradley, K. (2009). The Bradley Report. Centre for Mental Health. http://www.centreformentalhealth.org.uk/pdfs/Bradley_report_2009.pdf

Burrows, T., Brock, A. P., Sulley, S., Smith, C. & Summers, L. (2003). Safer Cells Evaluation. Jill Dando Institute. London.

Burtch, B.E. & Ericson, R.V. (1979). The Silent System: An Inquiry into Prisoners who Suicide and Annotated Bibliography, Centre of Criminology: University of Toronto.

Caulum, M. (2007): Post-adolescent brain development: A disconnect between neuroscience, emerging adults and the corrections system. Wisconsin Law Review, 729-758.

Cordis Bright (2011). Keppel Unit Process Evaluation: Summary. London: Youth Justice Board.

Daigle, M. S., Daniel, A. E., Dear, G. E., Frottier, P., Hayes, L. M., Kerkhof, A., Konrad, N., Liebling, A. & Sarchiapone, M. (2007). Preventing Suicide in Prisons, Part II International Comparisons of Suicide Prevention Services in Correctional Facilities, Crisis, 28, 122 - 130

Daigle, M. S., Labelle, R., & Cote, G. (2006). Further evidence of the validity of the Suicide Risk Assessment Scale for prisoners. International Journal of Law and Psychiatry 29:343–354.

Danto, B. (1973). Jail House Blues: Studies of Suicidal Behavior in Jail and Prison, Orchard Lane, Mich.: Epic.

De Silva, S., Parker, A., Rosemary, P, (2013) Mapping the evidence of prevention and intervention studies for suicidal and self-harming behaviours in young people Crisis, 34: 223-32.

Dear, G. E., Thomson, D. M. & Hills, A. M. (2000). Self-Harm in Prison: Manipulators can Also Be Suicide Attempters. Criminal Justice and Behavior, 27, 160 - 175.

Farrington, D. P. & Jolliffe D. (2002). A feasibility study into using a randomised controlled trial to evaluate treatment pilots at HMP Whitemoor. Research Study. London: Home Office. http//www.homeoffice.gov.uk/rds/pdfs2/rdsolr1402.pdf

Farrington, D. P., Loeber, R. & Jolliffe, D. (2008). The age-crime curve in reported offending. In R. Loeber, D. P. Farrington, Stouthamer-Loeber, M. & White, H. R. (Eds.). Violence and Serious Theft: Development and Prediction from Childhood to Adulthood. New York: Routledge (pp. 122 – 159).

Fazel S, Cartwright J, Norman-Nott A, Hawton K. (2008). Suicide in prisoners: a systemic review of risk factors. Journal of Clinical Psychiatry, 69:1721–31.

Felthous, A. R. (2011). Suicide Behind Bars: Trends, Inconsistencies,and Practical Implications, Journal of Forensic Sciences, 56, 1541 - 1555.

Gavin N, Parsons S, Grubin D (2003). Reception screening and mental health needs assessment in a male remand prison. Psychiatric Bulletin for the Royal College of Psychiatrists, 27:251–253.

Grubin D, Carson D, Parsons S (2002) Report on new prison reception health screening arrangements: The results of a pilot study in 10 prisons. Newcastle: University of Newcastle; (unpublished manuscript).

Haines, J. & Williams, C.L. (1997). Coping and problem-solving of self-mutilators. Journal of Clinical Psychology, 53, 177-186.

Harvey, J. (2007). Young men in prison: Surviving and adapting to life inside. Cullompton: Willan.

Hawton, K., Saunders, K.E.A. and O'Connor, R. (2012) Self harm and suicide in adolescents. Lancet 379: 2373-82.

Hawton, K.K.E., Townsend E., Arensman, E, Gunnell, D., Hazell, P., House, A., & van Heeringen, K. (1999).Psychosocial and pharmacological reatments for deliberate self-harm, Cochrane Collaboration Review.

Hawton, K., Arensman, E., Wasserman, D. Hulten, A. Bille-Brahe, U. Bjerke, T. Crepet, P. Deisenhammer, E. Kerkhof, A. De Leo, D. Michel, K. Ostamo, A Philippe, A. Querejeta, I. Salander-Renberg, E. Schmidtke, A. and Temesvary, B. (1998). Relationship between Attempted Suicide and Suicide Rates among Young People in Europe. Journal of Epidemiology and Community Health, 52, 191-194.

Hayes, L. A. (2009). Juvenile Suicide in Confinement: A National Survey. Office of Juvenile Justice and Delinquecy Prevention: Department of Justice: Washongton, DC.

Hedderman, C. & Jolliffe, D. (2014). The impact of prison on women: paying the price for wrong decisions. Victims and Offenders (in press).

Hopkins, K. & Brunton-Smith (2014). Prisoners' experience of prison and outcomes on release: Waves 2 and 3 of SPCR. London: Ministry of Justice.

Huey-Dye, M. (2010). Deprivation, importation, and prison suicide: Combined effects of institutional conditions and inmate composition, Journal of Criminal Justice, 38, 796-806.

Inch, H., Rowlands, P., & Soliman, A. (1995). Deliberate self-harm in a Young Offenders' Institution. The Journal of Forensic Psychiatry, 6(1), 161-171.

Independent Advisory Panel on Deaths in Custody (2014). Statistical Analysis of all recorded deaths of individuals detained in state custody between 1 January 2000 and 31 December 2013.

Jolliffe, D. & Hedderman, C. (2012). Investigating the impact of custody on reoffending using propensity score matching. Crime and Delinquency (online first).

Kellogg, K. J. Kaur, S. & Blank, W. C. (2014). Suicide in corrections: An overview, Disease-a Month, 60, 215-220.

Koehler, J. A., Losel, F., Akoensi, T. D., & Humphreys, D. K. (2013). A systematic review and meta-analysis on the effects of young offender treatment programs in Europe. Journal of Experimental Criminology, 9, 19 – 43.

Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M. & Anderson, L. (2012). Return on Investment: Evidence-Based Options to Improve Statewide Outcomes. Olympia, WA: Washington State Institute for Public Policy.

Liebling, A. (2012). Young adult offenders in custodial institutions: vulnerability, relationships and risks. In F. Losel, A. Bottoms & D. P. Farrington (Eds). Young Adult Offenders: Lost in Transition. London: Routledge.

Liebling, A. (2011). Distinctions and distinctiveness in the work of prison officers: Legitimacy and authority revisited. European Journal of Criminology, 8, 484-499.

Liebling, A. (1999). Prisoner suicide and prisoner coping. Crime and Justice, Vol 26, 283 – 359.

Liebling, A. (1992). Suicides in Prison, London: Routledge

Leibling, A., Tait, S., Stiles, A & Harvey, J. (2005). An Evaluation of the Safer Locals Programme. Cambridge Institute of Criminology, Prisons Research Centre, Cambridge.

Lipsey, M. W. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. Victims and Offenders, 4, 124 – 147.

Losel, F., Bottoms, A. & Farrington, D. P. (2012). Introduction. In F. Losel, A. Bottoms & D. P. Farrington (Eds). Young Adult Offenders: Lost in Transition. London: Routledge.

Martin, M. S., Colman, I., Simpson, A. I. F., McKenzie, K. (2013). Mental health screening tools in correctional institutions: a systematic review, BMJ Psychiatry, 13, 275 – 300.

Marzano, L., Hawton, K., Rivlin, A. and Fazel, S. (2011). Psychosocial influences on prisoner suicide: a case-control study of near-lethal self-harm in women prisoners. Social Science and Medicine. 72, 874-883.

Medlicott, D. (2001). Surviving the Prison Place: Narratives of Suicidal Prisoners, Aldershot and Burlington: Ashgate.

Ministry of Justice (2014). HM YOI Wetherby Keppel unit – high standards of care in a well-run facility. http://www.justice.gov.uk/news/press-releases/hmi-prisons/hm-yoi-wetherby-keppel-unit-high-standards-of-care-in-a-well-run-facility

NICE (2004). Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care. NICE clinical guideline 16. Retrieved from www.nice.org.uk/CG16.

McCord, J. (2003). Cures That Harm: Unanticipated Outcomes of Crime Prevention Programs, Annals of the American Academy of Political and Social Sciences, 587, 16 – 30.

Mills, J.F. & Kroner, D.G. (2005).Screening for suicide risk factors in prison inmates: Evaluating the efficiency of the Depression, Hopelessness and Suicide Screening Form (DHS), Legal and Criminological Psychology, 10, 1-12.

Ministry of Justice (2014). Safety in Custody Statistics

Prisons and Probation Ombudsman for England and Wales (2014). Learning lessons bulletin Fatal incident investigations issue 6. http://www.ppo.gov.uk/wp-content/uploads/2014/08/LLB-FII-06_Young-adults-.pdf

Rivlin A, Fazel S, Marzano L, Hawton K. (2012) Studying survivors of near-lethal suicide attempts as a proxy for completed suicide in prisons. Forensic Science International, 220(1-3): 19-26.

Sánchez, H. (2013). Suicide prevention in administrative segregation units: what is missing? Journal of Correctional Health Care. 19:93-100.

Senior, J., Appleby, L. & Shaw, J. (2014). The management of mental health problems among prisoners in England and Wales, International Psychiatry, 11, 56 – 59.

Senior, J., Birmingham, L., Harty, M. A., et al (2013) Identification and management of prisoners with severe psychiatric illness by specialist mental health services. Psychological Medicine, 43, 1511–1520.

Senior, J., Hayes A. J, Pratt, D., Thomas, S.D., Fahy, T., Leese, M., Bowen, A., Taylor G. ,Lever-Green, G., Graham, T., Pearson, A., Ahmed, M., , & Shaw, J.J. (2007) ' The identification and management of suicide risk in local prisons', The Journal of Forensic Psychiatry & Psychology, 18: 368 – 380.

Shaw, J., Wainwright, V., Webb, R., Appleby, L., Piper, M., Rees, J. and Elder, R. (2013). National Study of Self-Inflicted Death by Prisoners 2008-2010. Manchester: University of Manchester.

Sherman, L. W., Gottfredson, D.C., MacKenzie, D. L, Eck, J.,Reuter, P., & Bushway, S. D. (1998). Preventing Crime: What Works, What Doesn't, What's Promising, Washington: National Institute of Justice.

Skuse, D. (2014). Managing the mental health of prisoners: dilemmas and solutions, International Psychiatry, 11, 55 – 56.

Steele, M. M. & Doey, T. (2007). Suicidal Behaviour in Children and Adolescents Part 2: Treatment and Prevention, Canadian Journal of Psychiatry Suppliment, 52; 35S.

Tait, S. (2011). A typology of prison officer approaches to care. European Journal of Criminology, 8, 440-454.

Tait, S. (2009). Care and the prison officer: beyond 'turnkeys' and 'care bears'. Prison Service Journal, 180, 3 – 11.

Topp, D.O. (1979). Suicide in Prison. British Journal of Criminology 143: 24-27.

Townsend, E., Walker, D-M,, Sargeant, S., Vostanis, P., Hawton, K., Stocker, & Sithole, J. (2010), Systematic review and meta-analysis of interventions relevant for young offenders with mood disorders, anxiety disorders, or self-harm, Journal of Adolescence, 33, p9-20.

Appendix A – Databases Searched

Academic Search Premier
BioMed Central
BioMedical and Life Sciences Collection
BMJ Journals Collection
Cambridge Books Online
Cambridge Journals and Digital Archive
Cochrane Library
DOAJ (Directory of Open Access Journals)
EBSCOhost Research Databases
IngentaConnect
JAMA Network
JISC Journal Archives
JSTOR
Medline
Oxford Journals
PsycARTICLES
PsycINFO
Sage Journals Online
SciVerse SCOPUS
SpringerLINK
Swetswise
Taylor and Francis Online
Web of Knowledge
Wiley Online Library
ZETOC

Appendix B. Studies Obtained and Consulted in Searching for Effective Interventions and Risk/Protective Factors Associated with Self-Harm/Suicide in Prison

Abram, K. M., Choe, J. Y., Washburn, J. J., Teplin, L. A., King, D. C., Dulcan, M. K. & Bassett, D. (2014).Suicidal Thoughts and Behaviors Among Detained Youth, Office of Juvenile Justice and Delinquency Prevention: US Department of Justice: Washinton DC.
Awofeso, N. (2010) Preventing suicides in prison settings – the role of mental health promotion policies& programs. Advances in Mental Health, Volume 9, Issue 3.
Bhatta, M. P., Jefferis, E., Kavadas, A., Alemagno, S. A., & Shaffer-King, P(2014) Suicidal Behaviors among Adolescents in Juvenile Detention: Role of Adverse Life Experiences. PLoS ONE 9(2): e89408. doi:10.1371/journal.pone.0089408
Bianic, T. (2011). Certified expertise and professional responsibility in organizations: the case of mental health practice in prisons. The Sociological Review. 59, 4, 803-827.
Bird, S.M. (2008) Fatal accident inquiries into 97 deaths over five years in Scottish prison custody: long elapsed times and recommendations. Howard Journal of Criminal Justice, 47, 4, 343-370.
Blaauw, E, Kerkhof, J.F.M & Hayes, L.M. (2005) 'Demographic, Criminal, and Psychiatric Factors Related to Inmate Suicide', Suicide and Life-Threatening Behaviour, 35(1), p63-75.
Blaauw, E., Kerkhof, A. and Vermunt, R. (1997). Suicides and other deaths in police custody. Suicide and life-threatening behaviour, 27, 2, 153-163.

Boden, J. M., Fegusson, D. M. & Horwood, L. J. (2007). Anxiety disorders and suicidal behaviours in adolescence and young adulthood: findings from a longitudinal study, Psychological Medicine, 37, 431 - 440.

Bonner, R. L. (2000). Correctional Suicide Prevention
in the Year 2000 and Beyond. Suicide and Life-Threatening Behavior 30, 370 - 376.

Borowsky, I.W., Ireland, M. and Resnick, M.D. (2001) Adolescent suicide attempts: risk and protectors. Paediatrics, 107(3), 485-493.

Borrill, J & Taylor, J. A. (2009). Suicides by foreign national prisoners in England and Wales
2007: mental health and cultural issues, Journal of Foresnice Psychiatry and Psychology, 20, 886 - 905.

Brausch, A. and Guttierrez, P. (2010) Differences in non-suicidal self injury and suicide attempts in adolescents. Journal of Youth and Adolescence, 39, 233-242.

Brent, D. A. (2007). Delinquent Accounts: Does Delinquency Account for Suicidal Behavior? Journal of Adolescent Health 40 (2007) 204–205

Bridge, J.A., Goldstein, T.R. and Brent, D.A. (2006) Adolescent suicide and suicidal behaviour. Journal of Child Psychology and Psychiatry, 47, 372-394

Burns, J.M. and Patton, G.C. (2000) Preventive interventions for youth suicide: A risk factor-based approach. The Australian and New Zealand Journal of Psychiatry, 34(3), 388-407.

Burrows, T., Brock, A. P., Sulley, S., Smith, C. & Summers, L. (2003). Safer Cells Evaluation. Jill Dando Institute. London.

Callahan, P., Hetrick, S.E., Liu, P. and Purcell, R. (2012) Evidence map of prevention and treatment interventions for depression in young people. Depression Research and Treatment. Advance online publication.

Camerilleri, P. & McArthur, M. (2008), 'Suicidal Behaviour in prisons: Learning from Australian and international experiences', International Journal of Law & Psychiatry, 31, p297-307

Carlen, P. (2001). Death and triumph of governance?: Lessons from the Scottish women's prison. Punishment and Society. 3, 4, 459-471.

Casiano, H., Katz, L. Y., Globerman, D. & Sareen, J. (2013). Suicide and Deliberate Self-injurious Behavior in Juvenile Correctional Facilities: A Review. Journal of the Canadian Acadademy of Child & Adolescent Psychiatry, 22, 118 - 124.

Cheliotis, L.K. (2012). Suffering at the hands of the state: conditions of imprisonment and prisoner health in contemporary Greece. European Journal of Criminology. 9, 1, 3-22.

Child Deaths: Learning from PPO investigations into three recent deaths of children in custody (2013) Learning Lessons Bulletin, March 2013. Prisons and Probation Ombudsman

Ciuhodaru, T., Romedea, S. N., Arhipescu, T., Buda, O., (2009). Factors increasing mortality rates in suicide attempts in jail and prison. Romanian Journal of Legal Medicine 17 (1) 69 – 72.

Coles, D. & Edmundson, A. (2012) Fatally Flawed: Has the state learned lessons from the deaths of children and young people in prison? London: Prison Reform Trust & INQUEST

Cooper, J., Murphy, E., Webb, R., Hawton, K. et al, (2010) Ethnic differences in self harm rates, characteristics and service provision: three city cohort study. British Journal of Psychiatry, 197(3), 212-218

Daigle, M. S., Daniel, A. E., Dear, G. E., Frottier, P., Hayes, L. M., Kerkhof, A., Konrad, N., Liebling, A. & Sarchiapone, M. (2007). Preventing Suicide in Prisons, Part II International Comparisons of Suicide Prevention Services in Correctional Facilities, Crisis, 28, 122 - 130

Daigle, M. S., Labelle, R., & Cote, G. (2006). Further evidence of the validity of the Suicide Risk Assessment Scale for prisoners. International Journal of Law and Psychiatry 29 (2006) 343–354.

Daniel, A. E. (2006). Preventing Suicide in Prison:
A Collaborative Responsibility of Administrative, Custodial, and Clinical Staff. Journal of the American Academy of Psychiatry and Law, 34, 165-175.

Daniel, A. E. & Flemming, J. (2006). Suicides in a State Correctional System, 1992-2002: A Review. Journal of Correctional Health Care, 12, 24 - 35.

De Silva, S., Parker, A., Rosemary, P, et al (2013) Mapping the evidence of prevention and intervention studies for suicidal and self-harming behaviours in young people Crisis (2013) Volume 34(4): 223-32

Dear, G. E., Thomson, D. M. & Hills, A. M. (2000). Self-Harm in Prison: Manipulators can Also Be Suicide Attempters. Criminal Justice and Behavior, 27, 160 - 175.

Deaths of children in custody: Actions taken, Lessons Learnt (2014) Youth Justice Board for England and Wales

Delaney, K.R. and Fogg, L. (2005). Patient characteristics and setting variables related to use of restraint on four inpatient psychiatric units for youths. Psychiatric Services. 56, 2, 186-192.

Department of Health (2009) Best practice in managing risk: principles and guidance for best practice in the assessment and management of risk to self and others in mental health services. Department of Health, National Risk Management Programme.

Department of Health (2012) Preventing Suicide in England: a cross government outcome strategy to save lives

Dooley, E. (1997) 'Prison Suicide- Politics and Prevention: a view from Ireland', Crisis: The Journal of Crisis Intervention and Suicide Prevention, 18(4), p185-190.

Doty, S, Smith, H. P. & Rojek, J. (2012). Self-Injurious Behaviors in Corrections: Informal Social Control and Institutional Responses in a State Prison, Victims and Offenders, 7, 30-52.
System

Edgar, K & Rickford, D (2009) Too Little, Too Late: An Independent Review of Unmet Mental Health Need in Prison, London: Prison Reform Trust.

Fagan, T. J., Cox, J., Helfand, S. J., & Aufderheide, D. (2010). Self-Injurious Behavior in Correctional Settings, Journal of Correctional Health Care, 16, 48 - 66.

Fazel S, Cartwright J, Norman-Nott A, Hawton K. Suicide in prisoners: a systemic review of risk factors. J Clin Psychiatry 2008;69(11):1721–31.

Felthous, A. R. (2011). Suicide Behind Bars: Trends, Inconsistencies,and Practical Implications, Journal of Forensic Sciences, 56, 1541 - 1555.

Fergusson, D. M., Woodward, L. J. & Horwood, L. J. (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. Psychological Medicine, 30, 23 - 39.

Florentine J.B. and Crane, C. (2010) Suicide prevention by limiting access to methods: a review of theory and practice. Social Science & Medicine 70(10): 1626–1632.

Fortune, S., Stewart, A., Yadav, V. and Hawton, K. (2007) Suicide in adolescents: using life charts to understand the suicidal process. J Affect Disord. June 2007, vol 100. 199-210

Fruehwald, S., Frottier, P., Eher, R., Guttierrez, K. and Ritter, K. (2000). Prison suicides in Austria, 1975-1997. Suicide and life-threatening beahaviour, 30, 4, 360-369.

Fruehwald, S., Frottier, P., Matschnig, T. & Eher, R. (2003). The relevance of suicidal behaviour in jail and prison suicides, European Psychiatry, 18, 161 - 165

Fulwiler, C., Forbes, C., Satangelo, S. L., & Folstein, M. (1997). Self-Mutilation and Suicide Attempt: Distinguishing Features in Prisoners, Journal of the American Academy of Psychiatry and Law, 25, 69 - 77.

Gallagher, C.A. and Dobrin, A. (2006). Deaths in juvenile justice residential facilities. Journal of Adolescent Health. 38, 662-668.

Gallagher, C.A. and Dobrin, A. (2007). Risk of suicide in juvenile justice facilities: the problem of rate calculations in high-turnover populations. Criminal Justice and Behavior. 34, 10, 1362-1376

Gould MS, Greenberg T, Velting DM, Shaffer D. (2003) Youth suicide risk and preventive interventions: a review of the past 10 years. Journal of the American Academy of Child and Adolescent Psychiatry, 42(4), 386-405.

Gould, M. S., Marrocco, F. A., Kleinman, M., Thomas, G. T.,Mostkoff, K., Cote, J., & Davies, M. (2005). Evaluating Iatrogenic Risk of Youth Suicide Screening Programs, JAMA, 293, 1635 - 1643.

Grant, E. (2008) Towards Safer and More Congruent Prison Environments for Male Aboriginal Prisoners', PhD thesis, School of architecture, Landscape Architecture & Urban Design, University of Adelaide

Hales, H., Davison, S. Misch, P., Taylor, P.J. ((2003), 'Young male prisoners in a Young Offenders' Institution: their contact with suicidal behaviours by others', Journal of Adolescence, 26, p667-685.

Harrington , R. (2001) Depression, suicide and deliberate self harm in adolescence. Oxford Journal of Medicine, volume 57, Issue 1: 47-60

Harvey, J. (2007). Young Men in Prison

Harvey, J. (2011), 'Young Prisoners and their Mental Health: Reflections on providing therapy', Prison Service Journal, 197, p26-31

Hawton, K., Linsell, L., Adeniji, T., Sariaslan, A., & Fazel, S. (2014) 'Self-harm in prisons in England and Wales: an epidemiological study of prevalence, risk factors, clustering, & subsequent suicide', The Lancet, Vol. 383, Mar 29, p1147-1154

Hawton, K., Saunders, K.E.A. and O'Connor, R. (2012) Self harm and suicide in adolescents. Lancet (2012) 379: 2373-82

Hawton, K.K.E., Townsend E., Arensman, E, Gunnell, D., Hazell, P., House, A., & van Heeringen, K. (1999).Psychosocial and pharmacological reatments for deliberate self harm, Cochrane Collaboration Review

Hayes, L. A. (1999). Suicide Prevention in Juvenile
Correction and Detention Facilities. Office of Juvenile Justice and Delinquecy Prevention: Department of Justice: Washongton, DC.

Hayes, L. A. (2009). Juvenile Suicide in Confinement:
A National Survey. Office of Juvenile Justice and Delinquecy Prevention: Department of Justice: Washongton, DC.

Hayes, L. A. (2011a). Guide to Developing and Revising Suicide Prevention Protocols Within Juvenile Facilities. National Center of Institutions and Alternatives (on-line report)

Hayes, L. A. (2011b). Guiding Principles to Suicide Prevention in Correctional Facilites. National Center of Institutions and Alternatives (on-line report)

Hayes, L. A. (2011c). Avoiding Obstacles to Prevention. National Center of Institutions and Alternatives (on-line report).

Hayes, L. M. (2012). National study of jail suicide: 20 years later. Journal of Correctional
Health Care, 18, 233–245.

Hayes, L. M. (2013). Suicide prevention in correcational facilities: Reflections and next steps, International Journal of Law and Psychiatry, 36, 188-194.

Hayes, A.J., Shaw, J.J., Parker, D. & Gask, L. (2010) 'Improvements to Suicide Prevention Training for Prison Staff in England and Wales', Suicide & Life Threatening Behaviour, Vol 38(6), p708-13

Healthy children, safer communities: a strategy to promote the health and well-being of children and young people (2009), Department of Health, Department of Children, Schools and Families, Ministry of Justice, Home Office.

HM Inspectorate of Prisons (2007) The mental health of prisoners A thematic review of the care and support of prisoners with mental health needs, London: HM Inspectorate of Prisons.

Howell, K., Hall, G., Day, A. (1999) 'The Management of Suicide and Self-Harm in Prisons: Recommendations for Good Practice', Australian Psychologist, Vol 34(3), p157-165

Humber N., Hayes, A., Seniora J., Fahy T., and Shaw, J. (2011) 'Identifying, monitoring and managing prisoners at risk of self-harm/suicide in England and Wales', The Journal of Forensic Psychiatry & Psychology 22(1), pp22–51.

Huey-Dye, M. (2010). Deprivation, importation, and prison suicide: Combined effects of institutional
conditions and inmate composition, Journal of Criminal Justice, 38, 796-806.

Inquest submission to the Justice Committee Inquiry into Youth Justice (2012) Inquest

Isaac, M., Elias, B., Katz, L.Y., Belik, S.L et al. (2009) Gatekeeper training as a preventative intervention for suicide: a systematic review. Canadian Journal of Psychiatry, 54(4), 260-268.

Junker, G., Beeler, A. & Bates, J. (2005). Using Trained Inmate Observers for Suicide Watch in a Federal Correctional Setting: A Win–Win Solution, Psychological Services, 2, 20-27

Kariminia, A., Law, M.G., Butler, T.G., Corben, S.P., Levy, M.H., Kaldor, J.M. and Grant, L. (2007). Factors associated with mortality in a cohort of Australian prisoners. European Journal of Epidemiology. 22, 417-428.

Kellogg, K. J. Kaur, S. & Blank, W. C. (2014). Suicide in corrections:An overview, Disease-a Month, 60, 215-220.

Kiriakidis, S.P. (2008). Bullying and suicide attempts among adolescents kept in custody. Crisis, 29, 216 - 218.

Knoll, J. L. (2010). Suicide in Correctional Settings: Assessment, Prevention, and Professional Liability. Journal of Correctional Health Care, 16, 188 - 204.

Konrad, N., Daigle, M. S., Daniel, A. E., Dear, G. E., Frottier, N., Hayes, L. M. Kerkhof, A., Liebling, A., Sarchiapone, M. (2007). Preventing Suicide in Prisons, Part I, Crisis, 28, 113-121.

Langhinrichsen-Rohling, J., Hudson, K. & Lamis, D. A. (2012). Psychometric properties of a suicide screen for adjudicated youth in residential care. Death Studies, 36, 323-339.

Leibling, A. (1999). Prisoner suicide and prisoner coping. Crime and Justice, Vol 26, 283 - 359

Leibling, A. (2001). Suicides in prison 10 years on. Prison Service Journal, 138, 35 - 41.

Leibling, A. (2002). Suicides in prison and the safer prisons agenda. Probation Journal, 49, 140 - 150.

Leibling, A. (2012). Young adult offenders in custodial institutions: vulnerability, relationships and risks. In F. Losel, A. Bottoms & D. P. Farrington (Eds). Young Adult Offenders: Lost in Transition. London: Routledge.

Leibling, A. & Tait, S. (2006). Improving staff-prisoner relationships. In G. Dear (Ed.), Preventing suicide & other self-harm in prison (pp. 103–117). Basingstoke, UK: Palgrave Macmillan.

Leibling, A., Tait, S., Stiles, A & Harvey, J. (2005). An Evaluation of the Safer Locals Programme. Cambridge Institute of Criminology, Prisons Reseaarch Centre, Cambridge.

Lohner, J. and Konrad, N. (2006). Deliberate self-harm and suicide attempt in custody: distinguishing features in male inmates' self-injurious behavior. International Journal of Law and Psychiatry, 29, 370-385.

Mann JJ, Apter A, Bertolote J et al. (2005) *Suicide prevention strategies: a systematic review*. JAMA: The Journal of the American Medical Association 294(16):2064–2074

Marzano, L., Fazel, S.,Rivlin, A. and Hawton, K. (2011), 'Near-lethal self-harm in women prisoners: contributing factors and psychological processes',
The Journal of Forensic Psychiatry & Psychology 22(6), pp863-884.

Marzano, L., Fazel, S.,Rivlin, A. and Hawton, K. (2011), 'Near-lethal self-harm in women prisoners: contributing factors and psychological processes',
The Journal of Forensic Psychiatry & Psychology 22(6), pp863-884.

Marzano, L., Fazel, S., Rivlin, A. and Hawton, K. (2010). Psychiatric disorders in women prisoners who have engaged in near-lethal self-harm: case-control study. The British Journal of Psychiatry. 197, 219-226.

Marzano, L., Hawton, K., Rivlin, A. and Fazel, S. (2011). Psychosocial influences on prisoner suicide: a case-control study of near-lethal self-harm in women prisoners. Social Science and Medicine. 72, 874-883.

May, A. M., Klonsky, E. D. & Klein, D. N. (2012). Predicting future suicide attempts among depressed suicide ideators: A 10-year longitudinal study. Journal of Psychiatric Research, 46, 946 - 952.

McKenzie, N. & Keane, M. (2007), 'Contribution of Imitative Suicide to the Suicide Rate in Prisons', Suicide and Life-Threatening Behaviour', 37 (5), p538-542.

Meltzer, H., Jenkins, R., Singleton, N., Charlton, J. & Yar, M. (2003). Non-fatal suicidal behaviour among prisoners, International Review of Psychiatry, 15, 148–149

Mills, J.F. & Kroner, D.G. (2005)'Screening for suicide risk factors in prison inmates: Evaluating the efficiency of the Depression, Hopelessness and Suicide Screening Form (DHS), Legal and Criminological Psychology, 10, p1-12.

Ministry of Justice (2014). Safety in Custody Statistics England and Wales Update to March 2014. London: Ministry of Justice Statistics Bulletin.

Morgan, J & Hawton, K. (2004). Self-reported suicidal behavior in juvenile offenders in custody: prevalence and associated factors, Crisis, 25, 8 - 11.

Moss, N. (2006). Comment: racism and custody deaths in the UK: The Zahid Mubarek Inquiry. Social Justice, 33, 142 - 150

National Commission on Correctional Health Care (2013). Prevention of Juvenile Suicide in Correctional Settings.

National Confidential Inquiry into Suicide and Homicide by People with Mental Illness(2011) A national study of self inflicted deaths in prison custody

National Study of Self Inflicted Deaths by Prisoners 2008-2010 (2013) University of Manchester

Naud, H. & Daigle, M. S. (2013). How to improve testing when trying to predict inmate suicidal behavior. International Journal of Law and Psychiatry, 36, 390 - 398.

Nordentoft, M. (2011). Crucial elements in suicide prevention strategies. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 848-853.

O'Driscoll, C., Samuels, A. and Zacka, M. (2007). Suicide in New South Wales Prisons, 1995-2005. Australian and New Zealand Journal of Psychiatry, 41, 519-524.

Opitz-Welke, A, Bennefeld-Kersten, K., Konrad, N., & Welke, J. (2013). Prison suicides in Germany from 2000 to 2011. International Journal of Law and Psychiatry, 36, 386-389.

Pelkonen, M. and Marttunen, M. (2003) Child and adolescent suicide: epidemiology, risk factors and approaches to prevention. Paediatric Drugs, 5(4), 243-65

Penn, J. V., Esposito, C. L., Schaeffer, L. E., Fritz, G. K. & Spirito, A. (2003). Suicide Attempts and Self-Mutilative Behavior in a Juvenile Correctional Facility. Journal of the American Academy of Child and Adolscent Psychiatry, 42, 762- 769.

Perry, A. & Marrandos, R. (2000). Screening and assessment tools used to assess juvenile/young offenders for risk of suicide/self-harm on admission to a prison/secure institution. Campbell Collaboration Review Protocol

Pompili, M., Lester, D., Innamorati, M., Del Casale, A., Girardi, P., Ferracuti, S. Tatarelli, R. (2009). *Preventing suicides in jails and prisons: suggestions from experience with psychiatric inpatients*. Journal of Forensic Science, 54, 1155 – 1162

Prisons and Probation Ombudsman for England and Wales (2014). Learning lessons bulletin
Fatal incident investigations issue 6. http://www.ppo.gov.uk/wp-content/uploads/2014/08/LLB-FII-06_Young-adults-.pdf

Prisons and Probation Ombudsman for England and Wales (2014). Learning from PPO Investigations. Risk Factors in Self-Inflicted Deathsin Prison. http://www.ppo.gov.uk/wp-content/uploads/2014/07/Risk_thematic_final_web.pdf

Rabe, K. (2012). Prison structure, inmate mortality and suicide risk in Europe. International Journal of Law and Psychiatry, 35, 222-230.

Rickford, D (2003) Troubled Inside: Responding to the Mental Health Needs of Women in Prison, London: Prison Reform Trust.

Rivlin A, Fazel S, Marzano L, Hawton K. (2012) Studying survivors of near-lethal suicide attempts as a proxy for completed suicide in prisons. Forensic Science International, 220(1-3): 19-26

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K. & O'Brien, M. (2013). A Systematic Review of School-Based Interventions Aimed at Preventing, Treating, and Responding to Suicide- Related Behavior in Young People, Crisis, 34, 164 – 182.

Robinson, J., Hetrick, S.E. & Martin, C. (2011) 'Preventing Suicide in Young People: Systematic Review', Australian and New Zealand Journal of Psychiatry, 45 (3), p 3-26

Roscoat, E & Beck F. (2013). Efficient interventions on suicide prevention: A literature review. Revue d'E´ pide´miologie et de Sante´ Publique 61 (2013) 363–374.

Royal College of Psychiatrists Council Report on Suicide in Prison (2002). London

Rudd, M. D., Mandrusiak, M & Joiner, T. E. (2006). The Case Against No-Suicide Contracts: The Commitment to Treatment Statement as a Practice Alternative, Journal of Clinical Psychology: In Session, 62, 243 - 251

Sánchez, H. (2013). Suicide prevention in administrative segregation units: what is missing? Journal of Correctional Health Care. 19, 2, 93-100.

Sattar, G. and Killias, M. (2005). The death of offenders in Switzerland. European Journal of Criminology. 2, 3, 317-340.

Senior, J., Hayes A. J, Pratt, D., Thomas, S.D., Fahy, T., Leese, M., Bowen, A., Taylor G. ,
Lever-Green, G., Graham, T., Pearson, A., Ahmed, M., , & Shaw, J.J. (2007) ' The identification and management of suicide risk in local prisons', The Journal of Forensic Psychiatry & Psychology,
18(3): 368 – 380.

Sharkey, L. (2010) 'Does Overcrowding in Prisons Exacerbate the Risk of Suicide among Women Prisoners?', The Howard Journal, Vol 49(2), p111-124

Simon, R. I. (1999). The Suicide Prevention
Contract: Clinical, Legal, and Risk Management Issues, Journal of the American Academy of Psychiatry and Law, 27, 445 - 450.

Snyder, H. N. (2005). Is suicide more common inside or outside of juvenile facilities? Corrections Today, Feb, 84-85.

Stanley, B & Brown, G. K. (2012). Safety Planning Intervention: A Brief Intervention to Mitigate Suicide Risk. Cognitive and Behavioral Practice 19 (2012) 256-264

Steele, M. M. & Doey, T. (2007). Suicidal Behaviour in Children and Adolescents Part 1: Etiology and Risk Factors, Canadain Journal of Psychiatry Suppliment, 52; 21S

Steele, M. M. & Doey, T. (2007). Suicidal Behaviour in Children and Adolescents Part 2: Treatment and Prevention, Canadain Journal of Psychiatry Suppliment, 52; 35S

Statistical Update on Suicide (2014) Health Improvement Analytical Team, Department of Health.

Thompson, M. P., Ho, C., Kingree, J. B. (2007). Prospective Associations between Delinquency and Suicidal Behaviors in a Nationally Representative Sample, Journal of Adolescent Health, 40, 232 - 237.

Thompson, M. P., Kuruwita, C. & Foster, E. M. (2009). Transitions in Suicide Risk in a Nationally Representative Sample of Adolescents, Jounal of Adolescent Health, 44, 458-463.

Towl, G., Snow, L. & McHugh, M. (2002). Suicides in Prison. London: Wiley.

Townsend, E., Walker, D-M,, Sargeant, S., Vostanis, P., Hawton, K., Stocker, & Sithole, J. (2010), 'Systematic review and meta-analysis of interventions relevant for young offenders with mood disorders, anxiety disorders, or self-harm', Journal of Adolescence, 33, p9-20.

Transforming Management of Young Adults in Custody (2013). London: Ministry of Justice

Vollm, B. and Mairead, C. D. (2009)' Self-harm among UK female prisoners: a cross-sectional study', The Journal of Forensic Psychiatry & Psychology, 20(5), p741-751.

Way, B. B., Miragliab, T. R., Sawyer, D. A., Beer, R., Eddy, J. (2005). Factors related to suicide in New York state prisons. International Journal of Law and Psychiatry, 28, 207-221.

Windfur, K., While, D., Hunt, L., Tunbull, P. et al (2008) *Suicide in juveniles and adolescents in the United Kingdom*. National Confidential Inquiry into Suicide and Homicide by People with Mental Illness. Journal of Child Psychology and Psychiatry, 2008 Nov, 49(1): 1155-1165.

Woolgar, M. and Tranah, T. (2010) Cognitive vulnerability to depression in young people in secure accommodation: the influence of ethnicity and current suicde ideation. Journal of Adolescence, 33(5), 653-61

World Health Organization (2007) Preventing suicide in jails and in prisons. Department of Mental Health and Substance Abuse, WHO.

Young Adults in Custody: The way forward (2013) Rob Allen. Barrow Cadbury Trust.

Appendix C

Figure 1 presents a diagram developed by Hawton et al (2012; Figure 2, pp.2375) to organise the multitude of risk and protective factors for self-harm and suicide amongst young people that have been identified in the research literature. This figure has been slightly modified using a figure to describe suicide in prison presented by Liebling (1999; Figure 1, pp305). This figure illustrates how factors at many different levels (e.g. Genetic factors, Negative Life Events) can increase a young adult's risk of self-harm or suicide by causing psychological distress and hopelessness. These are the key psychological states precipitating the proximal antecedents to self-harm/suicide (suicidal ideation and pain alleviation) both outside and within prison (Liebling, 2012).

Figure 1. Risk and Protective Factors for Young People's Self-harm and Suicide in Prison