A Typology of Male Prisoners Making Near-Lethal Suicide Attempts

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Abstract. *Background:* Prisoners are at high risk of suicide. *Aims:* This study aimed to develop a typology of prison suicide. *Method:* We interviewed 60 male prisoners who made near-lethal suicide attempts in prison to obtain quantitative and qualitative data regarding psychiatric, psychological, social, and criminological factors. We analyzed this information to develop a typology to classify suicidal prisoners and validated it by having a prison psychiatrist independently rate each interview transcript. *Results:* We developed a typology of five subgroups: attempts that (1) were due to a prisoner being unable to cope in prison, (2) were motivated by psychotic symptoms, (3) had instrumental motives, (4) were "unexpected" by the prisoners themselves, and (5) were associated with withdrawal from drugs. The interrater reliability as measured by Cohen's κ was good to excellent at 0.81 ($p < .001$), 95% CI (0.69, 0.93). *Conclusion:* With further validation in other samples, this typology may assist suicide prevention initiatives in prisons as well as other forensic institutions by informing the assessment and formulation of suicide risk.

Keywords: suicide, prison, prevention, typology, jail, self-harm

Introduction

In most Western nations, including the US, UK, and Australia, suicide is a leading cause of death in prison (Dalton, 1998; Daniel, 2006; Fazel & Benning, 2006; Kariminia et al., 2007). It is estimated that 30–50% of all deaths in custody are by suicide (Fazel & Benning, 2006; Mumola, 2005). In absolute terms, this equates to between 60 and 90 suicides per year in prisons in England and Wales (Fazel & Benning, 2006). Research has consistently shown that rates of suicide in prison are disproportionately high compared to those recorded in the general population (Fazel, Grann, Kling, & Hawton, 2011). For example, in England and Wales between 1978 and 2003 the suicide rate in male prisoners was five times higher than in men in the general population of similar age (Fazel, Benning, & Danesh, 2005). The suicide rate in prisons in other countries was found to be higher than in the general population by factors of 3.7 (Australia), 3.8 (Belgium), 3.4 (Canada), 5.4 (Denmark), 6.3 (England and Wales), 3.1 (Finland), 3.2 (Ireland), 5.7 (The Netherlands), 3.6 (New Zealand), 7.7 (Norway), 5.1 (Scotland), and 5.7 (Sweden) (Fazel, Grann, Kling, & Hawton, 2011). Furthermore, recently released prisoners remain at a much greater risk of suicide, especially in the first month after release (Zlodre & Fazel, 2012). Consequently, national strategies for suicide prevention in the U.S. (US Department of Health, 2012), UK (Department of Health, 2012), and some other countries (e.g., Ireland and New Zealand; Associate Minister of Health, 2006; Health Service Executive & Department of Health and Children, 2005) have included prisoners as a high-risk population requiring specific measures.

One approach to improving the understanding of prison suicide that may aid prevention is through identifying typologies or subgroups of prisoners who have made near-lethal suicide attempts. Such a typology could be helpful for two reasons. Firstly, it can assist in the clinical assessment process by highlighting some patterns that may be overlooked, and in formulating and making sense of suicidal ideation and behavior in prisoners for health care and prison staff. Secondly, with validation, a typology may influence suicide-prevention strategies by assisting in the identification of subgroups that appear to be at higher risk.

Typologies have been developed previously either through psychological autopsy studies of prisoners who have died by suicide or through investigation of those who have made suicide attempts (Table 1). In one of the earliest typologies of prison suicide, based on a case series analysis of official records of small numbers of suicides from single prisons and jails, it was proposed that there were three "types" of person dying by suicide in prison: the disgraced serious offender, the persistent but isolated recidivist, and the "manipulative" suicide attempter whose intention was not to die (Danto, 1973). However, psychological autopsy

Table 1. Summary of typologies of prisoners dying by suicide or attempting suicide developed in previous studies compared with present proposed typology

Author	Country	Typology of prison suicide/attempted suicide	Primary study methods used
Danto (1973)	US	1. Disgraced serious offender 2. Persistent but isolated recidivist 3. "Manipulative" suicide attempter	Psychological autopsy, analysis of prison files
Hatty and Walker (1986)	Australia	1. Previously suicidal, violent offender, remanded in custody 2. Prisoner unfit to plead or facing indefinite prospect of a Governor's Pleasure sentence, transferred to unfamiliar surroundings on a disciplinary measure 3. Young offender with history of convictions for property offences, with no job and no family for support	Analysis of prison files
Dooley (1990)	UK	1. Prison situation 2. Outside pressures 3. Guilt for offence 4. Mental disorder	Analysis of prison files
Liebling (1992)	UK	1. The psychiatrically ill 2. The serious offender facing a life sentence 3. Unpredictable young offender sentenced or facing charges for acquisitive offences and showing similar characteristics to the general prison population	Interviews with suicide attempters broadly defined
Lester and Danto (1993)	US	Based on Durkheim: 1. Egoistic 2. Fatalistic	Literature review
Liebling (1995)	UK	1. Poor copers 2. Long-sentence prisoners 3. Psychiatrically ill	Interviews with suicide attempters broadly defined
The present study	England and Wales	1. Prisoner unable to cope 2. Psychotic prisoner 3. Instrumental motive 4. "Unexpected" attempt 5. Prisoner withdrawing from drugs	Interviews with prisoners making near-lethal suicide attempts

studies are limited by the often poor quality of clinical and prison records, and also by the ability of key informants to be unbiased in their recall of important information.

Departing from the psychological autopsy methodology, Liebling (1992, 1995) formulated a three-fold typology of prison suicide based on interviews with suicide attempters. This included "poor copers" (those who could not cope with prison life), long-sentence prisoners, and the psychiatrically ill. However, interviewing suicide attempters can be problematic because there is little evidence to suggest that it is possible to generalize about those that complete suicide from those *generally* making attempts. Research has consistently found significant differences in terms of populations and causal factors between those attempting and dying by suicide (Beautrais, 2001), for instance, in terms of age (those who attempt suicide are younger than those who die by suicide) (Pallis, Barraclough, Levey, Jenkins, & Sainsbury, 1982), sex (females more likely to attempt, but males more likely to die by suicide) (Dorpat & Boswell, 1963; Dorpat & Ripley, 1967; Linehan, 1986; Michel, 1987; Stengel & Cook, 1958), psychiatric diagnosis (higher rates in suicides) (Pallis et al., 1982), and intent to die (weaker in attempted suicides than suicides) (Pallis & Sainsbury, 1976).

Previous typologies of suicidal behavior in prisoners are also limited because they have been grounded in different theoretical perspectives, which have tended to focus on specific explanatory variables, while overlooking other relevant factors. Sociologically driven typologies have not fully included clinical factors, for instance, while psychological autopsy studies have mostly not fully accounted for environmental or social aspects of suicidal behavior in prisoners.

We have studied prisoners who made near-lethal suicide attempts, on the basis that these provide a proxy for actual suicides (Rivlin, Fazel, Marzano, & Hawton, 2012). This novel approach has, as far as we are aware, only previously been used in a pilot study in prisons research (Borrill, 2004). It allows far greater access to both the psychological and environmental factors that contribute to suicide than do psychological autopsy methods (Marzano, Rivlin, Fazel, & Hawton, 2009). As part of a wider case-control study into the risk factors and suicidal processes associated with near-lethal suicide attempts in prisoners (Marzano, Fazel, Rivlin, & Hawton, 2010; Rivlin, Hawton, Marzano, & Fazel, 2010), we interviewed 60 male prisoners who made near-lethal suicide attempts and assessed them on a range of qualitative and quantitative psychiatric, psychological, social, and criminological measures. We used all these factors to develop a typology of male prison suicidal behavior that was subsequently validated by an independent forensic psychiatrist.

Method

Participating Prisons

Together with the Ministry of Justice Safer Custody and Offender Policy Group for Prisons in England and Wales, we identified 19 male prisons within 100 miles of Oxford with high rates of serious suicide attempts and completed suicide. These included three Young Offenders' Institutes (prisoners aged 18–21 years), three Category A (maximum security) prisons, 12 Category B prisons (establishments for those who do not require maximum security but for whom escape must be made difficult), and one Category C prison (for prisoners who cannot be housed in open conditions but who are unlikely to try to escape). The Category A and B prisons, and the Young Offenders' Institutes, include both pretrial and sentenced prisoners.

Participant Identification

Participants were prisoners aged 18 years or older who had made a near-lethal suicide attempt. These were defined as acts that (1) could have been lethal had it not been for intervention or chance, and/or (2) involved methods that are associated with a reasonably high chance of death (Kresnow et al., 2001). More extensive criteria were developed to aid prison staff referring cases to the study (Marzano et al., 2009; Rivlin et al., 2010) (Table 2).

Cases were interviewed within 4 weeks of the suicide attempt. In determining how long a time period would be suitable to leave between the act and an interview, several theoretical and practical factors were considered. On one hand, it was considered necessary to interview the prisoners as soon as possible after the act so that their responses were, as far as possible, a closer reflection of their mental state at the time of the act and so that they did not forget important aspects of the circumstances surrounding their suicide attempts. However, it was also thought likely that prisoners might be emotionally distressed and physically damaged by the attempt (especially because if it was medically serious, they might be in hospital for a number of days), so an ethical consideration was that they might need some time to recover. Furthermore, it was necessary to leave an amount of time to organize access to each prison and prisoner, and gather the necessary bureaucratic approvals.

There were 42 referrals that were excluded from the study. These were because the prisoner had declined to participate (15), was considered too dangerous (4) or mentally ill (1), could not speak English well enough to participate (8), or because staff shortages or absences meant that the 4-week time limit within which an interview had to be conducted had been missed (6). In eight cases, prisoners were released from prison or transferred to a nonparticipating prison before an interview could be arranged. Included cases were significantly more likely than those excluded to be white (52/60, 87%, vs. 25/42, 60%; odds ratio [OR] = 4.4, 95% confidence interval [CI] 1.7–11.6) and to be serving a life sentence (13/39, 33%, vs. 2/23, 9%, OR = 5.1, 95% CI 1.0–24.9). Other recorded sociodemographic and criminological characteristics did not differ significantly between the included and excluded prisoners.

Interviews

One of the authors (AR) conducted face-to-face interviews with participants in private, after obtaining written informed consent. The interviews lasted between 90 and 120 min. We collected data about the following variables that were chosen based on an extensive evaluation of the literature on factors contributing to near-lethal suicide attempts and completed suicide in prison. These included information on:

1. Sociodemographic, criminological, and medical history: We used a structured questionnaire, adapted from

Table 2. Criteria for identification of near-lethal suicide attempts

Method	Inclusion criteria
Attempted hanging Ligature use Self-strangulation	Unconscious after attempting to hang or use a ligature, or not unconscious but: a) witnessed in suspension or using a ligature and physical evidence of asphyxiation, or b) physical evidence of suspension or using a ligature
Self-asphyxiation Suffocation	Witnessed self-asphyxiating, or any other physical evidence of self-asphyxiation
Cutting Stabbing Wound aggravation or insertion	Sustained a puncture wound penetrating body cavity or major organ, or lacerations that damaged or severed tendons, arteries, or large veins, or came very close to doing so
Ingesting, inhaling, injecting a) Level of consciousness b) Biochemical abnormalities	 a) Objective evidence of altered level of consciousness, or unconscious at presentation or prior to medical facility b) Transferred or admitted to a prison healthcare unit, any outside hospital or accident and emergency department
Jumping from a considerable height	Witnessed jumping or any physical evidence of having jumped from a considerable height, likely to have led to serious injury
Other (e.g., setting fire to self)	Case referral determined on a case-by-case basis

the Oxford Monitoring System for Attempted Suicide (Hawton et al., 2003).
2. Psychiatric morbidity: Psychiatric disorders were assessed using the Mini International Neuropsychiatric Interview (Sheehan et al., 1998), which includes Axis I (psychiatric) and II (personality) DSM diagnoses.
3. Psychological characteristics: We assessed impulsivity (Plutchik & van Praag, 1986), hostility (Buss & Durkee, 1957), self-esteem (Robson, 1989), aggression (Brown, Goodwin, Ballenger, Goyer, & Major, 1979), and depression (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).
4. Life events and childhood trauma: We used the Life Events and Prison Experiences Questionnaire (Singleton, Meltzer, & Gatward, 1998) and a modified 28-item version of the Childhood Trauma Questionnaire (Bernstein, Ahluvalia, Pogge, & Handelsman., 1997; Bernstein, Fink, Handelsman, & Foote, 1994; Fink, Bernstein, Handelsman, Foote, & Lovejoy, 1995).
5. Social support and social networks: These were assessed using the Social Support Scale (Singleton et al., 1998).
6. Self-harm history: This was assessed using a structured questionnaire adapted from the Oxford Monitoring System for Attempted Suicide (Hawton et al., 2003).
7. Suicidal process*:* We conducted a semistructured qualitative interview to gather information about the circumstances surrounding the near-lethal act, including an assessment of suicidal intent using the Suicide Intent Scale (Beck, Schuyler, & Herman , 1974). We also gathered information about suicidal thoughts and imagery, social influences, and trigger events.

Data Analysis

There were two stages of data analysis. In the first stage, the initial analysis of the raw data was carried out. All statistical analyses were conducted using the Statistical Package for the Social Sciences (Version 15.0, SPSS Inc., 2007) and STATA (Version 9.0, StataCorp, 2005). The method used for the analysis of the qualitative data (thematic analysis) was based on that proposed by Braun and Clarke (2006). The interviews were transcribed, read at least twice, and coded using NVIVO (Version 8.0, QSR International, 2008). The individual results of both the qualitative and quantitative analyses have been published elsewhere (Rivlin, Fazel, Marzano, & Hawton, 2011; Rivlin, Hawton, Marzano, & Fazel, 2010), and will not be repeated here.

In the second stage of data analysis, all of the qualitative and quantitative results were considered together in order to take a comprehensive view of the data. One author (AR) re-read all of the interview transcripts (including the results of the quantitative data) and aimed to find common themes between the groups of men who had made near-lethal suicide attempts. This included considering and balancing both the qualitative and quantitative data. These themes were then discussed with other members of the research team, who have extensive experience of suicide and forensic mental health. Consequently, a number of different types of suicide attempter and attempt were proposed and agreed by consensus.

Next, a summary sheet of the draft typology was produced outlining the key defining features of each subgroup. This summary, together with all the interview transcripts and additional data, was passed to an expert (RF) independent of the research team, who is a board-certified forensic psychiatrist with a long experience of clinical work in prisons and was at the time working clinically as a prison psychiatrist. He was asked to categorize each case into one of the subgroups, using the same criteria.

Finally, the classifications of the two assessors were compared. An interrater reliability analysis using Cohen's κ statistic (Cohen, 1960) was performed to determine concordance among raters. Generally accepted score values are as follows: less than 0 indicates no agreement, 0–0.20 indicates slight agreement, 0.21–0.40 is fair agreement, 0.41–0.60 is moderate agreement, 0.61–0.80 substantial agreement, and 0.81–1 can be classified as almost perfect agreement (Landis & Koch, 1977).

Results

We interviewed 60 male prisoners from 19 prisons who had made near-lethal suicide attempts. Prisoners ranged in age from 18 to 57 years (median age = 27 years), the majority were white (n = 50, 87%), two thirds were convicted of a violent index offence (n = 36, 60%) and had received a sentence (n = 39, 65%). All of the prisoners had at least one psychiatric diagnosis at the time of the suicide attempt. The majority had depression (n = 52, 87%), were suffering from drug abuse (n = 42, 70%), and a quarter of the men had a psychotic disorder (n = 15, 25%).

Two thirds (n = 40, 67%) of the near-lethal suicide attempts were by hanging or ligaturing. There were also 12 (20%) incidents of severe cutting, three (5%) self-asphyxiations, three (5%) overdoses of analgesics, one (2%) ingestion of foreign objects (plastic knives), and one (2%) self-immolation. Further details of the sample have been published elsewhere (Rivlin et al., 2010).

The 60 male prisoners who had made near-lethal suicide attempts were classified according to the following five-category typology:
1. Prisoner unable to cope in prison. This comprised prisoners who found prison to be an overwhelming experience, for example because they were considered a "vulnerable prisoner" (i.e., usually a sex offender). Unable to fit in with the day-to-day life of prison, they were also dealing concurrently with a variety of other traumatic life events such as a recent bereavement or relationship break-up. This group attributed their suicide attempts to a combination of past abuse, on-going prison-related troubles, and other serious problems outside prison.
2. Attempt motivated by psychotic symptoms. In this subgroup, prisoners were experiencing psychotic symp-

toms, such as hearing voices telling them to kill or hurt themselves, and/or acute paranoia. They had usually either been, or were in the process of being, transferred to a psychiatric hospital under a mental health order.

3. The instrumental motive. The stated intention of the prisoners in this subgroup was not to die, even though they made medically serious suicide attempts (that fitted the criteria for inclusion in the study). Rather, prisoners apparently wanted to attain a clearly identifiable goal, such as a move to another prison wing or cell.
4. The "unexpected" attempt. Here, otherwise apparently well-adjusted prisoners appeared to be overwhelmed in a short space of time by a series of adverse life events taking place both in and outside prison. The prisoners were unlikely to have attempted suicide or self-harmed previously. Importantly, the term *unexpected* refers to the prisoner's own understanding of their suicide attempt; they viewed it as unexpected, unforeseen, and out of character.
5. Attempt associated with withdrawal from drugs. The defining feature of this group of suicide attempters was that they attributed their act, for the most part, to withdrawing from drugs (usually heroin).

Interrater Reliability

Comparison of the allocation to subgroups within the above typology by the research team and by the independent forensic psychiatrist rater showed agreement in 51 of 60 cases (85%). The interrater reliability as measured by Cohen's κ was 0.81, 95% CI (0.69, 0.93) ($p < .001$).

There were nine occasions where the classifications differed between the two raters. In six of these instances, one rater identified the act as being "unexpected" (Category 4) while the other rater identified it is as being due to a prisoner being unable to cope in prison (Category 1). In two of the other three mismatched cases, one rater classified the case as being motivated by drugs (Category 5) while the other classified it is as due to a prisoner being unable to cope in prison (Category 1). In the third case, the raters identified the act as being either motivated by instrumental purposes (Category 3) or due to a prisoner being unable to cope (Category 1).

Detailed Description of the Subgroups Within the Typology

In this section we present further details of the subgroups, including an overview of their characteristics based on both quantitative and qualitative data (Table 3 and 4). We have omitted the nine cases for which there was disagreement between the ratings of the research team and the independent rater.

Subgroup 1: Prisoner Unable to Cope in Prison

There were 17 (33%) prisoners in this subgroup. They appeared to find prison overwhelming (Case vignette 1). Since their initial reception into prison, they had found it impossible to become accustomed to prison life. This may have been for a variety of reasons. For example, some were vulnerable prisoners, which, in prison jargon, usually means a sex offender. These prisoners are usually despised in the prison system, find themselves at the bottom of the prison hierarchy, and are usually segregated for their own protection. Alternatively, there was sometimes a very specific reason for the prisoner's difficulty. Prisoner 50 reported he had been raped in the same prison on an earlier sentence, while prisoner 6 said his brother died by suicide on the same wing in the same prison the previous year. Another common reason to have found prison intolerable was if the prisoner believed he was wrongly accused or convicted:

> Being here when I know I haven't done anything wrong. I spoke to my solicitor last week and he told me that if it does come out that I do get found guilty, then I'll get lifed off [given a life sentence]. Crap… especially knowing damn well I've not done it … being in prison for something that I haven't done.

Prisoners in this subgroup were sometimes being bullied by other prisoners, and instances of severe physical attacks amongst this group were not uncommon. One prisoner, for instance, was stabbed in the face with a penknife by another prisoner. In some instances, a prisoner's fear for their physical safety could be longstanding:

> I have been in prison for the last 2 years. I started my sentence at the age of 17… that was in juvenile where I had problems with bullying and I had fights. I had more friends there. I was confident that it was over because he [the bully] wouldn't want to take the risk again. But I've come here on my own. I haven't got any people that I can rely on in here, and him and a lot of his mates are here. They all confronted me and threatened me over at the chapel, which is the reason for me being on F-wing [segregation for your own protection]. It is difficult. I have had to adjust. It's not as easy as the officers say it is. They can say just walk away from it, turn away and walk away if someone starts on you but it's not that easy because I turn away from someone and that makes me even more vulnerable. Even if I stand up for myself, I still risk getting beaten up and so what do I do?

These prisoners generally had very poor relationships with staff and had usually been involved in an abusive verbal attack or physical confrontation with them:

> I think the support in here is terrible. An officer… come in here smiling. Yesterday he come by… he kept knocking things off my walls. I said, "What are you doing knocking the batteries off?" He said, "Maybe you need to kill yourself? If you do, let me know." All day he's been coming in my pad.

When these prisoners were in contact with family or friends, they missed them greatly and found the social

Table 3. Typology of near-lethal suicide attempts: summary of characteristics of individuals in each sub-group

	Prisoner unable to cope in prison	Psychotic prisoner	The instrumental motive	The "unexpected" attempt	Prisoner withdrawing from drugs
Number of prisoners in subgroup	17	10	9	8	7
Summary	Prison completely overwhelming for the prisoner, who is usually also dealing concurrently with a catalogue of other very traumatic life events	Acutely psychotic prisoner usually in process of being sectioned or has been sectioned and awaiting transfer	Prisoner does not want to die but self-harms in order to achieve a clearly identifiable goal	Relatively well-adjusted prisoner experiences a series of adverse life events that overwhelms their normal ability to deal with prison life	Recently imprisoned prisoner undergoing first-stage detoxification (usually from heroin), which directly contributes to suicide attempt
Characteristics common to prisoners in group	• Finds prison very difficult and is unable to become accustomed to prison's daily life, especially missing family/friends and being locked up • Bullied by other prisoners • Poor relationships with staff (may have been involved in physical confrontation) • Experiencing a series of adverse life events, e.g., bereavement • Likely to have suffered childhood trauma and be from a disadvantaged background • Suicide attempt attributed to mix of past abuse, on-going prison troubles, and other serious problems outside prison	• Long history of self-harm and suicide attempts • Likely to have had inpatient and outpatient psychiatric care, and to have a number of comorbid disorders • Several prior prison sentences • Might also be withdrawing from drugs	• Usually angry about an aspect of life in prison • Finds prison very hard and have difficulty fitting in: bullied by other prisoners and bad relationships with staff • Unlikely to have social support outside prison • Considerable history of self-harm and attempted suicide, sometimes for same reasons • No awareness of how dangerous behavior might be because repeated acts desensitize them to severity of method	• Usually does not find prison difficult • Receive frequent visits, letters and phone calls • Geographically close to family/friends • Good relationships with staff and prisoners • Unlikely to have history of severe psychiatric illness or co-morbid disorders • Several prior prison sentences • Little history of previous self-harm or suicide attempts • Suicide attempt precipitated by a number of adverse life events and is usually impulsive • Suicide attempt 'out of character' • Unlikely to be recognized as at-risk of suicide	• Imprisoned on a specialist drug detoxification wing • Spends most of the day locked up in cell • Bad relationships with staff • Unlikely to be identified as being at-risk of suicide

dislocation of prison particularly hard. Finally, another recurring theme among this group was that "bang-up" (i.e., being locked up in their cell) was especially difficult:

> Being locked up all the time is hard. Seriously, as soon as you get a free moment before you know it you're back in your cell and locked up again. And then when you get banged up it's even worse because you're sitting there, you've got nothing, and there's nothing you can do about it. There's nothing out there, nothing anyone can do for me out there 'cause I'm in here.

While these prisoners found prison very difficult, they were also likely to be dealing concurrently with a variety of other very traumatic life events, e.g., a recent bereavement or relationship break-up. The reasons given for the suicide attempt were usually a mix of past abuse, on-going prison-related troubles, and other serious problems outside prison:

> When I got raped in 2000 I started cutting and I haven't stopped since. It's just been a never-ending nightmare in here and out there. There's a lot of things going on at the moment. I knew I got a review coming up for my constant watch. My methadone was getting messed about. My mum was going to have an operation on her lung. I had problems outside with my missus and the kids asking where I am and why I ain't been home. I just had enough. I get stressed out and then I start adding up things in my head… what life's about and can I go through the rest of my sentence….Everything just got on top of me… if I don't cut up every couple of weeks, I start to get frustrated… I can't sleep… stressed out all the time. I phone up my family and I stress them out and then I get worried that I've stressed them out too much. It's just the build up of thoughts and then I just explode.

These prisoners were likely to be from even more disadvantaged and damaged backgrounds than the general prison population and they were likely to be disruptive in the prison system, becoming branded as "trouble makers" by the prison authorities. They lacked the inclination to ask for help for their problems, especially if they perceived the prison authorities as "out to get them" or believed they would be bullied further by other prisoners for being "weak." They felt isolated and they often saw their suicide attempt as the only way out of a desperate situation:

> It wasn't an attempt. It was the bloody real thing. I wanted to get out of here and I didn't want to wake up with my problems again. I couldn't face the next day.

Subgroup 2: Prisoner Experiencing Psychotic Symptoms

In this subgroup there were ten (20%) prisoners who were acutely psychotic and had usually either been, or were in the process of being, sectioned under the Mental Health Act (Case vignette 2). Their suicide attempts were driven in large part by symptoms such as hearing voices telling them to kill or hurt themselves and/or by acute paranoia:

> I get my mum's voice in my head and I get a girl called Joanne's… her voice is in my head. And Joanne is pregnant

> and she is trying to get me to come to her and the only way I can go to her is to kill myself.

> I heard voices just telling me to do it. They are telling me every day, waking me up at night telling me to do it.

> I was hearing voices and seeing visions. It was just getting on my nerves….I feel like… a lot of the time I feel like it because… you hear voices and you just want to get rid of them… try any means to get rid of them and then you can't get rid of it so… My padmate has got an alarm and it was commanding me to do it so I just thought, "Oh well, I'll do it then." And I was seeing my vision as well so I got on a chair and started to tie up.

Prisoners in this category may have had a long history of self-harm precipitated by voices and/or other psychotic symptoms. They were likely to have had previous psychiatric treatment, either as inpatients or outpatients, or both, and to have been in prison many times before. They also all had comorbid psychiatric disorders, especially depression, substance misuse, and posttraumatic stress disorder. All prisoners in this sample had four or more disorders and three cases were also withdrawing from drugs. Despite the severity and nature of their symptoms, only half of this sample was identified as being at-risk of suicide at the time of the incident.

Subgroup 3: The Instrumental Motive

There were nine prisoners (18%) in this subgroup; prisoners who did not intend their self-harm to lead to death (Case vignette 3). Rather, the act was intended to achieve an intelligible nonfatal goal. Prisoners were often also very angry at the time of the attempt. For example, prisoner 12 had asked prison officers to move cells to be with his brother-in-law. "They weren't listening to me," he said. Angry at being ignored, he therefore attempted to hang himself in his cell with his cellmate present and awake in the belief that the act would make the prison officers take his request more seriously:

> I just wanted to be with my brother-in-law who is in here.

Prisoner 47 was disabled and in a wheelchair and, one evening, was moved to a smaller cell on a different wing. He told staff that he wanted to move to another, larger, cell but, because the officers did not move him, he cut his torso and left arm extensively but superficially. Again, the officers did not move him so he carried out a near-lethal act:

> The next day I got up in the morning and I said, "I can't be in that cell. You know I'll cut up." I says, "I'll try and drown myself. I cannot take that. It's too, too small. I cannot. I was fine in that other cell." Mr. A says, "There is nothing they can do." I says, "Well I'm supposed to go back to my own cell." He says, "You can't go back over there just now. Someone else is there." I said, "Well, I'll just end up hurting myself. You know I'll hurt myself. I will even try and drown myself." They put me back in the same cell again….. I've got a diabetic pack that is in a carrier bag. So I put that bag over me head.

Prisoner 20 also wanted to move cells. He was upset at having been placed in a cell with a sentenced child sex offender:

> I knew straight away there was something wrong with that bloke and I waited for him to go to work … and I picked some mail up and I found that he is on the sex register.

He then cut his wrists and went to tell staff to move the pedophile out of his cell, which they did. However, his next cellmate was also a pedophile. Upon discovering this he felt so annoyed and frustrated that he took an overdose. The purpose of his act was not to die but to let the prison staff know that he "was not to be messed around with."

The prisoners in this subgroup had a considerable history of self-harm and suicide attempts, some for the same types of instrumental reasons. Because similar acts in the past had apparently been successful in achieving the desired results, the prisoner had learned that in an overcrowded prison system self-harm is a particularly effective way of manipulating the staff in order to achieve a specific outcome. Prisoners usually had no apparent awareness of how dangerous their behavior was, seemingly because repeated acts appeared to desensitize them to the severity of their chosen methods.

Prisoners in this subgroup found prison very hard to cope with. They had difficulty fitting in and were habitually bullied by other prisoners and/or found themselves regularly in physical altercations with prison staff:

> Sometimes I feel like punching their [prisoners] heads in. But I can't. I have parole. If I didn't have parole I would grab them and smack them up. They [staff] are fools as well, man. One of them told one of the lads the other day what I was doing. And he started taking the piss. Some of these Govs [Prison Governers] … telling me to hang myself and shit. Telling me to fucking get on and do it. One of them said he was going to come in and bang my head off the wall so I said, "Come in and try do it now then if you think you're a big man." I can look after myself. I ain't frightened. If someone wants to fight me, let's go.

Often, they also had no meaningful relationships so were socially isolated. Prisoner 47 had been emotionally, physically, and sexually abused by his father and was now estranged from his family:

> I hardly talk to them. I'm the only one that's on here. So I never see anyone.

Subgroup 4: The Unexpected Attempt

There were eight (16%) prisoners in this subgroup who all recounted that their suicide attempt had appeared *to them* as being "out of the blue," unplanned and a great shock. They were likely to be relatively well-adjusted to prison life (Case vignette 4). Having had several prior sentences, they were used to the daily prison routine and did not find it particularly difficult. One prisoner, for example, who had been in prison about 40 times, felt that prison was:

> …just like a home from home… 'cause I can see all my pals… piece of piss. You get fed three times a day. You get your canteen that'll last you a week. What more do you want? It's only female company…

Similarly, prisoner 48 had spent most of his life in prisons:

> Safe. It's what I know. It's an institution. I am totally institutionalized.

Since they were usually incarcerated in their local prison establishment, prisoners in this group were geographically close to their family and friends, who were therefore able to visit them regularly. They knew, and, in some cases, were fairly friendly with prison staff and other prisoners, and were usually able to approach either for help or support if needed:

> Brilliant. I have got to say this is the best prison I have been to. This is a staff-run prison, not a prisoners-run prison. In here they do things for you… like the staff will bend over backwards for you if you ask and if you treat them how you want to be treated… I like the staff here, I have not come across one bad member of staff. And that is God's honest truth. And I mean that. I swear to God, not one bad member of staff.

Prisoners in this group had no, or very little, previous history of self-harm or suicide attempts either in prison or outside. Apart from depression, these prisoners were very unlikely to have a history of severe psychiatric illness (e.g., psychosis or a history of psychiatric in- or outpatient treatment) or to have comorbid disorders (apart from drug or alcohol abuse).

The defining feature of individuals in this subgroup is that they were overwhelmed in a short space of time by a series of adverse life events taking place both in and outside prison. If just one or two of these incidents had taken place, it is likely that the prisoners would have been able to draw on their preexisting support networks or psychological skills to overcome their problems. However, the cumulative effect of these events acted as a type of tipping point pushing prisoners "over the edge" so that they were no longer able to cope in prison:

> Well I'd lost my job. I split up with the missus and I was trying to make things better. I had just been run over and beat up by the police. I was back in jail and I made a promise that I would never come back. Low self-esteem. Taking drugs. The crowd I was mixing with outside prison. Missing my baby and that. Just everything all at once. I was like an elastic band and when you stretch it I just snapped in the middle and that was it.
>
> I don't even know what really happened. I just snapped.
>
> Everything seemed to come together at one point. Sentenced to the block, the thing with the Gov, thinking about things … some of my friends that got killed on the roads and then it all just got to me. Some days I thought, "Oh shit, I need to speak to him," and then I remember that he's dead and it feels weird. And one time I phoned his number and I forgot he was dead. It pissed me off. It was two friends as well. One month after the other, about 6 months ago. I was ultra upset, I mean it was Christmas time.

At this point in the suicidal process, the purpose of the act was always, unambiguously, to die:

> Honestly when I done this I was ... I just wanted to do it. I just really wanted to do it. I thought to myself I don't want to be in this world no more. And I thought I ain't going to do one easy scratch on my arm or nothing like that… I'm just going to cut my throat and that's what I done.
>
> To kill myself. I did at the time. It wasn't a cry for help, I was very down then.

Since the suicide attempt was usually impulsive, these prisoners were unlikely to have been recognized as being at risk of suicide by the prison authorities. Thus, only two of the prisoners in this group were previously identified as being at risk of suicide, and they were both in a safer cell (a cell in which ligature points have been removed) at the time of the incident.

The suicide attempt was viewed as "out of character" by the prisoner, who was likely to be deeply shocked, embarrassed, and ashamed of the incident. Usually these prisoners stated that the act had "woken them up" and that they would never attempt suicide again. If family and friends found out about the incident, they were also shocked and concerned for the prisoner's safety since they also recognized that this type of behavior was not normal for the person in question:

> They were very shocked. I've got a visit off my mum this weekend and that's going to be hard because in all the years I've been in jail my mum has never come on a visit and I know this is serious now for my mum to come into the jail to see me. I don't know what she's going to want to say to me.
>
> Oh, my family obviously were really concerned.

Subgroup 5: Prisoner Withdrawing From Drugs

There were seven (14%) prisoners in this subgroup. They were recently imprisoned with a drug abuse problem (usually heroin, Case vignette 5). They were usually undergoing a detoxification program on a specialist drug detoxification prison wing, but some were withdrawing without medical assistance in a normal prison location. The defining feature of prisoners in this subgroup was that they attributed their suicide attempt to their drug withdrawal:

> All they had given me was 10 mg of diazepam and that weren't doing nothing. I think the withdrawing was making me feel down… because I was feeling down that's happened ... I wasn't, how can I put it? I wasn't down because of what was going on outside or anything like that. Everything was okay. My partner was with me still … she weren't leaving me. I was in contact … I had all my contacts so you know there was no depression or nothing like that. It was just my withdrawal.
>
> All I wanted was my medication [methadone], that's it and because I wasn't getting my medication, if you're not getting a medication, no one can really speak to you and say anything to you because that's all you want …So I had to rattle for that

Table 4. Case vignettes of examples of each subgroup of typology

Case vignette 1: Prisoner unable to cope in prison James* was 21 years old and was serving a 5-year sentence for rape and kidnap. Although segregated for his own protection on a vulnerable prisoners' unit, he was being bullied and physically assaulted by other prisoners both on his wing and in the wider prison system. He believed that the staff were interfering in his relationship with his family and blamed them for his family disowning him. As a result of his crimes, his partner had left him and he had not seen his daughter in 18 months. James was very depressed and felt extremely guilty for his crimes. He had attempted suicide previously in custody but had never done so while outside prison. On the morning of his near-lethal attempt he had received news that he would be transferred to an adult prison imminently, which he was very scared about, believing that the abuses he was suffering would escalate. James waited for his cellmate to leave for work, packed away his belongings, wrote a suicide note, and tried to hang himself with his bedding.
Case vignette 2: Attempt motivated by psychotic symptoms Alan* was 25 years old when he attempted, again, to take his own life in custody. He had a long history of severe mental illness and had been sectioned on at least three previous occasions. He had also been to prison several times prior to the current spell. Alan had been sectioned and was awaiting transfer to a secure psychiatric unit. At the time of his attempt he was experiencing acute psychotic symptoms, including hearing voices and paranoia. He believed that the police had inserted hundreds of "tags" into his body to monitor him and that they were setting him up for the murders of hundreds of women. On the day of his attempt, he was feeling increasingly stressed from the voices that kept telling him to harm himself and eventually he swallowed a bag and put another over his head in order to try to take his life.
Case vignette 3: The instrumental motive Paul* was 40 years old and, following a number of previous lengthy prison spells, was now serving a life sentence for murder. Since the age of 13 years, he had been self-harming and attempting suicide prolifically both in and outside prison. The purpose of the self-harm, he said, was to "get attention… to have doctors or officers or whoever baffled and running around after me. They would get me stuff… food, clothes, phone calls… whatever." The week before his near-lethal act, Paul found out he had contracted hepatitis C when he was taken hostage by another prisoner. At the same time, he was trying, but failing, to reestablish contact with his mother. The morning of his near-lethal act, Paul was working in the kitchen where he had an argument with an officer. Angry, he quit his job and stormed back to his room. On the spur of the moment, Paul attempted to hang himself, not, he said, because he wanted to die, but because he knew that he would have to be transferred to hospital and he wanted to leave the prison.
Case vignette 4: The unexpected attempt At the time of the interview, John* was 45 years old and, having turned state's evidence, was in the witness protection program. A self-confessed "hard man" who had been in and out of secure juvenile establishments and prison for years, sometimes serving very long sentences (e.g., 20 years for attempted murder), he claimed to be "institutionalized." For him, prison was safer than being "on the out" since he was able to "hold his own" on the wing because of his semiprofessional boxing career. The last time John was released from prison he went back to the gang areas of the inner city that he was forbidden from visiting, and, in doing so, placed his family in great danger. He was rearrested and sent back to prison. The guilt and shame of his reckless behavior made him very angry with himself. He said he felt worthless. At around the same time, his mother passed away and was not found for a number of days and he was having recurring vivid nightmares about her being dead with maggots coming out of her eyes. His house was being repossessed and his baby daughter had also recently died. One morning, having never made a suicide attempt or self-harmed before, he rang his partner to say goodbye and in the afternoon he attempted to hang himself. He was very shocked and embarrassed about his act, and stated that he would never do it again.
Case vignette 5: Attempt motivated by withdrawal from drugs Kevin* was in his late 20s and serving a short sentence for robbery. He had recently arrived into prison for the ninth time and was a long-term drug user addicted to heroin. Kevin had a long history of nonsuicidal self-harm and suicide attempts, which, he stated, were for a variety of reasons, including his drug dependence. On the afternoon of his attempted hanging, Kevin missed his regular methadone treatment because of a misunderstanding with staff. His withdrawal symptoms, which were already bad, became worse. In the early hours of the following morning, Kevin attempted to hang himself stating that he could not take the severity of his withdrawal symptoms any longer.

Note: * Names have been altered to preserve anonymity.

> night again … and I was in a single cell, and I just sat there thinking … I was withdrawing and I just tried to hang myself.

Prisoners on specialist drug detoxification wings can spend up to 23 hr a day locked up. Some believed that they were discriminated against by the prison staff for being drug addicts and consequently had very poor relationships with them:

> You do get some officers who don't like alcoholics and drug addicts. You can tell that they don't like alcohol and drug addicts because of the way they treat us. There is an officer here that is very mean to me.

These prisoners were unlikely to approach staff for help if they were feeling suicidal:

> There's no one to speak to in jail. I'm not going to go and speak to the officers. I don't speak to officers. I wouldn't speak to anybody.

As a result, many were not identified as being at-risk of suicide. In this sample, only two prisoners were identified as being at-risk of suicide before their near-lethal attempts.

Discussion

We have described an analysis of the qualitative themes and quantitative findings from 60 interviews with male prisoners who had made near-lethal suicide attempts, which allowed us to develop a typology of the prisoners and their acts. The typology included five subgroups: attempts that (1) were due to a prisoner being unable to cope in prison, (2) were motivated by psychotic symptoms, (3) had instrumental motives, (4) were unexpected, and (5) were associated with withdrawal from drugs.

When comparing this typology with those from previous research, there is some overlap. For instance, Liebling's (1995) "poor copers" subgroup is very similar in many characteristics to Category 1 (prisoner unable to cope in prison). They both emphasize the importance of the way that prison is experienced by vulnerable prisoners. Also, Danto's (1973) "manipulative" suicide attempter may be more or less equivalent to the third category – those who injure themselves in order to achieve a particular end or goal, rather than die. We would argue that, because our approach is more comprehensive in terms of

the range of factors examined than in previous prison suicide research, the typology we have developed is based on a more complete picture of the suicidal individual.

One point to consider is if the stated intention of the interviewee was to achieve a particular goal other than death, should this then be classified as a suicide attempt? Opinion in the literature is divided regarding whether emphasis should be more on suicidal intent or on lethality of the act (Daigle & Cote, 2006; Silverman, Berman, Sanddal, O'Carroll, & Joiner, 2007). We decided to adopt lethality as the main criterion. These men typically did extremely dangerous things to themselves that may have resulted in death. Formulating policies and interventions to reduce this type of behavior is also therefore likely to be an important component of a wider suicide prevention strategy. Moreover, even though suicidal intent was not one of the inclusion criteria, on average the prisoners scored very highly on the Suicide Intent Scale (Rivlin et al., 2010).

Several implications arise from our typology. Firstly, prisoners who are unable to cope with the pressures of prison life may be hard to identify because they may not appear different from many other prisoners. They may be difficult, disruptive, bullied and bullying, as well as confrontational with staff. It is possible that focusing on improving the "moral" performance of the prison (Liebling & Arnold, 2004) may help to mitigate some of the aspects of imprisonment that these prisoners find particularly difficult. For instance, the emphasis on "purposeful" daily routines that include constructive activities for all prisoners, whether pre-trial or sentenced, could reduce levels of boredom that some prisoners highlighted as a contributory factor in their suicide attempts. Also, these prisoners are likely to benefit from access to other services such as bereavement counseling, as they were also likely to have experienced the recent loss of a partner or family member.

Secondly, it would appear that prisoners experiencing psychotic symptoms may be at increased risk for suicidal behaviors in prison, as individuals with schizophrenia are in the community (Hawton, Sutton, Haw, Sinclair, Deeks, 2005). This underscores the importance of sensitive screening procedures on arrival in prison, speedy referrals to mental health professionals when these symptoms are first apparent, prompt treatment with antipsychotic medication, and transfer to external psychiatric hospitals (Earthrowl, O'Grady, & Birmingham, 2003; Fazel & Baillargeon, 2011).

Thirdly, prisoners who do not want to die but injure themselves seriously present a particular problem for prison staff. Not responding to a prisoner's request can increase the likelihood that the severity of the self-harm will escalate. On the other hand, prisoners may learn that such potentially lethal behavior may lead to their requests being met and it possibly encourages them and other prisoners to engage in further acts of self-harm. A case-by-case approach in order to determine the best management strategy could be considered.

Fourthly, some suicide attempts were unexpected in that they appeared to occur to the prisoners themselves without warning. Thus, prison staff should be vigilant for prisoners who may appear relatively well-adjusted but who are experiencing a large number of concurrent adverse life events, even if they do not have any previous history of self-harm. This implies that staff need to know prisoners well and have enough time to enable this to happen, which may not be possible in busy prisons with large turnovers, especially large local establishments (which take pre-trial and sentenced prisoners). Following a suicide attempt by such prisoners, staff should be aware that they are likely to be embarrassed, shocked, and ashamed of their acts.

Finally, our finding that suicide attempts appear to be precipitated for some prisoners by drug withdrawal highlights the need for an integrated approach between healthcare and first-night centers to ensure that medically-ill prisoners, especially those experiencing heroin withdrawal, are provided with appropriate pharmacological and related care (Stallwitz & Stover, 2007).

Strengths and Limitations of the Study

A strength of developing a typology is that it attempts to incorporate research findings both from the current research and from previous, mainly psychological autopsy, studies of prison suicide. There have been conflicting findings in previous research, for example, about the association between prisoner suicide risk and gender, detainee/remand status, and race/ethnicity (Fazel, Cartwright, Norman-Nott, & Hawton, K., 2008). One reason for these contradictory findings is that it is unlikely, as has been discussed by others (e.g., Liebling, 1995), that there exists a single profile of the suicidal prisoner. Therefore, there may be different risk factors for, and situational and environmental determinants of, suicide that are salient for different subgroups. For example, remand status may be an important factor for those believing they are unjustly accused, but in prisoners experiencing psychotic symptoms, its relative impact may not be as significant.

However, there are some problems with a "typologies approach" to prison suicide. Firstly, a typology is inevitably bound by time (when the data were collected) and space (which prisons and prisoners were included in the study). This is a limitation of many cross-sectional studies and could be remedied as we suggest by the validation or otherwise of this typology in other prison suicide studies.

Secondly, the extent to which the categories within a typology of prison suicide overlap with each other is potentially problematic. If categories are not mutually exclusive, the usefulness of the typology might decrease. In this study, there were a small number of areas where categories appeared to overlap. For example, out of ten prisoners who were placed in Category 2 (psychotic symptoms), three were also withdrawing from drugs at the time of their suicide attempt. Because of the relatively small numbers in the study and in these categories, it is hard to say whether this is a chance finding or evidence of a typology that does not sufficiently discriminate between subgroups. Further research is needed to investigate this potential problem. Nevertheless, the level of consistency between raters for the typology in its current form was high.

Thirdly, the sample sizes on which typologies have been based are usually relatively small and they are almost never tested post hoc or in a different sample, making their generalizability to the wider prison system questionable. In order to assess its robustness, this typology was validated by an expert independent of the research team, but it also requires further examination in other samples of prisoners. Another approach would be to provide the data and interview transcripts from this study to an independent person and ask them to come up with their own typology. If there was a high level of agreement between the two typologies, then in future research the extent to which this typology is applicable to prisoners in institutions beyond the 19 prisons included in this study, perhaps in prisoners in other countries, could be examined. The extent to which it applies to completed suicide in prison could also be investigated (Rivlin et al., 2012). Fourthly, the current typology is limited to men, and it is possible that different mechanisms are more prominent in women prisoners (Marzano, Hawton, Rivlin, & Fazel, 2011).

Finally, as with almost all research involving human participants, there may be issues around recall and self-presentation biases. In this study, two types of such bias may have been present. Firstly, social desirability bias may have meant that the interviewees told us what they thought we wanted to hear to make themselves appear "better" in some way. Secondly, although part of the consent process involved explaining to prisoners that we could not influence their care or treatment inside prison, it is still possible that discussing with them traits or issues that may be perceived as potentially having an impact on correctional care could have affected their answers.

Conclusion

We have proposed a typology to classify male prisoners who made near-lethal suicide attempts that may have implications for suicide prevention in prisoners. The typology should, however, be viewed as hypothesis-generating and requiring validation in other prison settings. Nevertheless, owing to the wide range of risk and protective factors examined in this study, this typology adds to the evidence base of the range of explanatory factors that may contribute to prison suicide.

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