

Fifty cases of general hospital parasuicide

Rory C. O'Connor*

Centre for Applied Social Psychology, University of Strathclyde, UK

Noel P. Sheehy

School of Psychology, Queen's University of Belfast, UK

Daryl B. O'Connor

Department of Endocrinology, University of Manchester, UK

Objectives. This study investigates 50 cases of parasuicide (defined as any act of deliberate self-harm irrespective of intention) admitted via an accident and emergency department of a general hospital and identifies differences between parasuicide sub-types.

Design. A cross-sectional design is employed.

Methods. Fifty individuals were interviewed the morning following a parasuicidal episode. Index parasuicides ($N = 24$) were compared with repeaters ($N = 26$). Those who verbalized their desire to die ($N = 21$) were compared with those who did not want to die ($N = 16$) and those who were ambivalent ($N = 13$). The interview schedule measured five risk factor domains including self-report of mental and physical health, perceptions of control, isolation and stressors.

Results. The prevalence of previously reported risk factors was replicated. Those who repeatedly attempted suicide tended to view their actions as more aggressive and were less relieved to be alive than those who attempted suicide for the first time. They also tended to be more angry at being alive and recognized the fatal consequences of their acts. Those who verbalized a wish to die differed from those who did not, and from those who were ambivalent, in terms of perceived aggressiveness of their actions, relief at being alive, anger and perceived risk.

Conclusions. Self-report measures can distinguish repeaters from first-time parasuicides. These findings could be integrated into existing risk assessment procedures and improve their effectiveness.

Parasuicide, defined as any act of deliberate self-harm¹ irrespective of intention, represents a serious public health problem in Europe (Diekstra, 1989). As many as 120,000 patients are admitted annually to general hospitals in England and Wales with self-inflicted injuries (Hawton & Fagg, 1992) and it is one of the most frequent causes

*Requests for reprints should be addressed to Rory C. O'Connor, Centre for Applied Social Psychology, Department of Psychology, University of Strathclyde, Graham Hills Building, 40 George Street, Glasgow G1 1QE, UK (e-mail: rory.o-connor@strath.ac.uk).

¹ 'Parasuicide', 'self-inflicted injuries', 'deliberate self-harm' and 'self-injurious behaviour' are used interchangeably.

for admission to accident and emergency departments of general hospitals (Hattori, Taketani, & Ogasawara, 1995; Schnyder & Valach, 1997). Women are more often admitted for parasuicidal behaviour than men and the incidence is relatively rare under 16 years of age (Hawton, Fagg, & Simkin, 1996a). There has been a large increase in the incidence of parasuicide among 15- to 19-year-olds (Hawton, 1992). The correlates and precipitants of parasuicide have been considered elsewhere (O'Connor, 1997) and only a selective review of studies pertaining to hospital admissions is considered here.

Between 40% and 50% of all parasuicide admissions are repeat episodes (Platt, Hawton, Kreitman, Fagg, & Foster, 1988). Repeaters are more likely to be unemployed (Bille-Brahe, Hansen, Kolmos, & Wang, 1985; Hassanyeh, O'Brian, Holtm, Hurren, & Watt, 1989), have a criminal record, have a history of contact with psychiatric services, and be in financial difficulty (Hawton, 1987). They are more likely to be divorced (Bille-Brahe & Jessen, 1994), separated or living alone and in violent relationships (Kreitman & Casey, 1988). They also tend to be lacking in social support and exhibit reduced psychosocial functioning (Ojehagen, Regnill, & Traskman-Bendz, 1991; Welcher, Rubin, & Nordentoft, 1993). Gupta, Sivakumar, and Smeeton (1995) compared the clinical and social profiles of 42 first-timers with 39 repeaters. The repeaters had experienced more marital breakdown, were more likely to be involved in a violent relationship and had more contact with psychiatric services. The first-timers were significantly more likely to state that they did *not* wish to die. In general, repeaters are significantly more likely to commit suicide than members of the general population and represent a special high risk group (Suokas & Lonnqvist, 1991). Understanding differences between repeaters and first-timers has important implications for primary health care.

A prospective study conducted in Nottingham city followed deliberate self-poisoners for a year after index episode (Owens, Dennis, Read, & Davis, 1994). Those who repeated were more likely to have ingested more than one drug, to report a previous episode of self-poisoning, to be aged between 25 and 54 years, and to have experienced previous psychiatric care or psychiatric admission.

In the North of England, Thomas *et al.* (1996) surveyed self-poisoners presenting to six accident and emergency departments to establish local incidence and patterns of presentation. Similar to previous research (e.g. Owens *et al.*, 1994), a significant percentage had a history of self-harm (37%). Thomas *et al.*'s study, while broadly epidemiological, did not take account of psychological and psychosocial factors. It is generally accepted that socio-demographic risk factors have broad rather than specific predictive value in identifying those who are likely to attempt suicide. Greater attention to psychological and clinical characteristics is required (Hughes & Owens, 1995).

This study aimed to identify psychological and psychosocial factors that describe better those who are at risk from suicidal behaviour *per se* as well as those more likely to repeat. It also aimed to test for differences between those who verbalize a desire to die, those who say they do not want to die, and those who are ambivalent about their wishes.

Method

Semi-structured interviews were conducted with 50 patients, admitted to the observational ward of a general hospital in Greater Belfast, Northern Ireland following a parasuicidal episode. A sample size of 50 was considered to be large enough to detect the most important effects. The interviews were conducted by the

first author and carried out between October 1996 and February 1997. An interview schedule was generated based on previous research to assess psychological, psychosocial and demographic characteristics. The interview schedule used a combination of Likert-type scales, categorical measures and open-ended questions.

Greater Belfast is serviced by two accident and emergency (A&E) departments, located in two local general hospitals. These two A&E departments have patient intake on alternate nights and between them they provide complete A&E cover for the catchment area. Interviews were carried out in only one of these hospitals. All patients admitted overnight to the observational ward of this general hospital were considered for inclusion in the study. Only those patients admitted because of intentional self-harm as defined in ICD-10 codes X60–X84 were included in the study.

Any patient admitted with non-accidental self-injury was considered a possible case of parasuicide. The principal author contacted the hospital each day following patient intake to identify possible cases of parasuicide. The diagnostic procedure was straightforward: the medical consultant classified each admission to the observational ward and indicated whether a patient should be treated as parasuicidal. Ethical approval was obtained for the interviews from both the university and hospital Medical Ethics committees.

Participants

In the course of the study, 78 people were admitted to the observational ward of the hospital following a parasuicidal episode. The authors interviewed 50; three refused to be interviewed, seven discharged themselves before psychiatric assessment and 18 discharged themselves before they could be invited to participate in the study. The majority (60%) were women ($N = 30$) and the mean age was 35.6 years. The mean ages for men (39.3 years) and women (33.3 years) did not differ statistically. There were no significant differences for marital status across sex. The patients' notes often did not include information on their occupation and as many of the interviewees were found to be unemployed, socio-economic status (SES) was not recorded. There were almost equal numbers of Catholics (46%) and Protestants (48%) in the sample. The religious persuasion of the remaining 6% was not recorded.

Semi-structured interviews

The interview schedule was generated after an extensive review of the literature and based on a coding frame used previously (O'Connor & Sheehy, 1997). The schedule was structured around five risk factor domains: (1) Section A: Self-report on mental health; (2) Section B: Self-report on physical health; (3) Section C: Alterations in behaviour/parasuicide episode; (4) Section D: Self-report on perceptions of stressors; and (5) Section E: Self-report on perceptions of social support/control in life.

Measures

For some questions, the patients were asked to record their responses against a 5-point Likert-type scale: (1) Not at all, (2) A little, (3) A moderate amount, (4) Very much, and (5) Extremely/extreme amount. A card outlining the Likert responses was given to the patients to facilitate the assessment procedure. Other questions required categorical (Yes/No) or open-ended responses.

Analyses

To profile the sample, the authors carried out chi-squares on the categorical (Yes/No) responses. Discriminant function analyses were calculated to determine whether ratings on various report measures could discriminate between: (1) first-time parasuicides and repetitive parasuicides; and (2) parasuicides who verbalized a wish to die, those who said they did not want to die and those who were unsure ('ambivalents').

Results

Using information contained in medical records chi-squared analyses revealed no significant differences between those interviewed and those not, in terms of age, sex, marital status or religion.

Method of parasuicide

Previous research identified drug overdose as the most frequently used method among parasuicides. Approximately nine out of ten parasuicides involve self-poisoning and the rest involve physical self-injury or a combination of the two (Hawton, Fagg, Simkin, & Mills, 1994; Platt *et al.*, 1988). Of those interviewed, 92% ($N = 46$) were self-poisoners. Those who injured themselves very seriously (by cutting/piercing) were admitted to the medical wards rather than the observational ward (where this study took place). However, a small number (8%) of those who cut or strangled themselves were admitted to the observational ward for logistical reasons—usually as a result of bed shortages in the medical wards—and these were interviewed.

Analgesics were involved in nearly half (46.5%) of the attempts, often in combination with other drugs. Moreover, analgesics, anxiolytics or antidepressants were implicated in 71.9% of the attempts. Paracetamol was the most frequently used analgesic, being ingested in 46% of cases.

Section A: Self-report on mental health

The interviews examined the incidence of previously reported risk factors. Ninety-four per cent reported feeling depressed in the period leading up to the attempt; women (100%) were significantly ($\chi^2(1) = 7.87, p < .03$) more likely to report feeling depressed than men (85%). Forty-six per cent attributed their depression to interpersonal problems, such as difficulties with a partner, and less frequently to familial problems.

Sixty-eight per cent had been prescribed medication for affective reasons, but less than half felt that the medication did any good. Only 36% said that they would consider going to their GP if they were feeling anxious or depressed. More men (45%) said they would visit their GP than women (30%), and while this difference was not statistically significant the trend goes against previously reported risk factors. Eighteen per cent said that they would not visit their GP for assistance with affective problems because they believed that GPs could not help them.

Section B: Self-report on physical health

Evidence for the role of physical illness in suicidal behaviour was apparent. There were no significant sex differences, although more men (45%) reported concerns about physical health than women (33%) and more often reported that their physical health was interfering with their everyday lives (45% for men and 23% for women). Sixty-seven per cent had been prescribed medication for physical problems, but only 42% of those thought the treatment helpful. Among those who were depressed, about a quarter (26%) thought that their physical condition played a role in their depression. Moreover, 32% thought that in general when they were physically ill they also became somewhat depressed.

Section C: Alterations in behaviour/parasuicide episode

Section C of the interview schedule was structured in two sub-sections. The first concerned behaviour changes prior to the parasuicide episode and the second examined thoughts about the parasuicide episode.

Alterations in behaviour. Men and women were equally likely to report experiencing changes in their behaviour (i.e. change in nature or frequency of behaviour) prior to parasuicide episode. The majority had changed their sleeping (86%) and eating (72%) habits in the weeks prior to the attempt and more than half (56%) had changed their drinking habits. There was no consistent pattern of behaviour change; therefore, it seems that the direction of the change is not of importance, but rather the change itself.

Parasuicide episode. Half (50%) of those interviewed felt that their outlook on life had changed between the time before the deliberate self-harm episode and the morning-after admission to the observational ward. These changes were usually to do with feelings of relief at still being alive. Nevertheless, the other half had not changed their outlook and some still wished they were dead. Two-thirds (68%) were relieved to be alive, although 44% felt angry or annoyed at being alive. Some individuals were both angry and relieved—not surprising, as ambivalence is a salient feature of suicidal cognition. The vast majority (88%) realised *at the time* that they were putting their lives at risk. Not all those who realised they were putting their lives at risk said they wanted to die. Seventy per cent said they had wanted to die at the time of the attempt, but this reduced to 46% when asked if they still wanted to die (post-parasuicide).

Seventy per cent described their attempt as an act of aggression. Most of these said that the episode was directed towards someone (48%), usually a partner, 22% said it was directed towards themselves. A history of self-harm was prevalent among the sample: 52% admitted to having attempted suicide on at least one other occasion. The mean interval between the previous parasuicidal episode and the most recent one was 23 months (SD = 13.7 months; range = 45 months) and there was no significant effect of sex. It seems that in the two years following an attempt the individual is at higher risk of repeating the episode.

The majority of those attempting suicide as an act of aggression (30%) explained that their actions were intended to highlight their personal difficulties, and a further 26% wanted temporary relief from an intolerable situation. Twenty per cent implicated interpersonal problems, some of which were part of an 'intolerable situation'. Personal circumstances were often interpreted as meaningless or troublesome, perhaps as previous research has suggested because suicidal thoughts may be characterized by inflexible thinking or constricted logic. Twelve per cent were under the influence of alcohol and felt they were not fully aware of what they were doing and a further 12% said they did not know why they overdosed.

Section D: Self-report on perceptions of stressors

Almost all (94%) those interviewed considered their lives to be stressful. The stressors ranged from more transient relationship problems to divorce and from being in trouble with the law to long-term sexual abuse. Interpersonal problems were the most frequently cited stressors (38%), followed by work-related stress (10%) and financial problems (10%). Most felt that life was too difficult: 92% felt that things had got on top of them.

Seventy-seven per cent were not working at the time of their parasuicide attempt. Men and women were equally likely to be unemployed. Many of those who were not working

(62%) described this as a source of considerable annoyance. Very few had left work voluntarily (8%) and some wanted to work but were in receipt of either disability or incapacity benefit. These individuals receive support from the State because they are either disabled or unable to work for health reasons. Thirty per cent were in receipt of disability and/or incapacity benefits and 12% had been made redundant. The relationship between unemployment and suicidality was replicated: 52% indicated that they felt that unemployment contributed to their feeling down. Self-esteem may mediate unemployment, depression and suicide risk.

Not surprisingly, a large percentage (94%) said that they often worried and two-thirds felt that they worried unnecessarily. Stressors also seemed to interfere with patients' interaction with others: 74% stated that stress placed a strain on their relationship with others. Among those who drink, 94% tended to drink more when under pressure, and to use alcohol as a coping strategy.

Three questions in this section examined the presence of cognitive rigidity and constricted logic. More than half (58%) said that, in general, they could see solutions to their problems. However, only 36% were able to see solutions to their problems at the time of the attempt, and about the same (34%) could see alternatives afterwards.

A small percentage (8%) either expressed their suicidal intentions before their attempt or made preparations so as not to be found (16%). There were no significant sex differences. The preparations usually involved locking the room or house where the attempt was to take place or to overdose when no one was expected to arrive on the scene.

The method of parasuicide chosen was most often a matter of practicality. Forty per cent said that they had overdosed on tablets because they were available. Twenty-eight per cent indicated that it was the ease of the method which determined their choice and 18% did not know why they had used the means they had.

Section E: Self-report on perceptions of social support/control in life

There were no significant sex differences on any of the items in this section. There was an apparent anomaly in replies to two questions: 60% said that they had at least one close friend in which they could confide, but 72% were recorded as saying that they found confiding in others to be helpful. This anomaly arose because some of those interviewed included their partners as confidants—friends. In addition, 45% of those who did not have someone to confide in found confiding in others helpful. Eighty-four per cent reported feeling lonely, often when there were others around them. Fifty-eight per cent were in relationships at the time of the attempt; men were slightly over-represented (65%) when compared with women (53.3%), albeit not significantly so.

The remaining questions in this section addressed feelings towards doctors and self-perceptions. Seventy eight per cent felt their doctor could be helpful if they were physically ill. Only 48% felt they could be helpful if they were depressed or suicidal. Sixty eight per cent said they would do something about a physical ailment (e.g. take medication or go to the doctor) compared with 46% who said that they would do something about an affective problem. Respondents were more likely to visit their GP for physical ailments (48%) than for affective problems (8%).

To recap, the results implicated the following factors in suicidal behaviour: self-reported depression; interpersonal problems; physical illness; temporary relief from an

intolerable situation; current cognitive constraint; 'forced' unemployment; and self-reported loneliness. In addition, it seems that the parasuicides: exhibit fewer gender-specific differences compared with those reported for completed suicide; exhibit proximal changes in behaviour; and are unlikely to attend their GP for psychological problems.

Differences between first-time (inaugural) parasuicides and those with history of self-harm

First-time parasuicides are thought to differ from those with a parasuicide history. First episodes were defined as those who presented with no previous suicidal history at the index episode. Those with a history of parasuicide were those who had significantly harmed themselves previously.

Demographics and interview schedule. Those with a history of self-harm ($N = 26$) did not differ significantly across demographic variables from those who attempted for the first time ($N = 24$). There were no significant differences (in categorical responses) between those with and without a history of self-harm across any of the interview items (at the 99% level of confidence).

Replies elicited against Likert-type scales were included in a discriminant function analysis to determine which variables discriminated the first-timers from the repeaters. These items were organized into seven sub-scales according to risk factor domains based on the relevant suicide risk factors.

Reliability analysis. All the items included in the analysis were converted to standardized z scores to control for variance differences. Cronbach's alpha was used to assess whether the items within each scale were reliable; the coefficients for the seven scales ranged from .28 to .95. A Cronbach alpha of .60 was adopted as the critical coefficient of reliability and used as the criterion for inclusion in the discriminant function analysis. According to this criterion two of the scales were excluded and the remaining scales were included in a stepwise discriminant analysis. The results revealed that only scale 4 (Wilks' $\lambda = .84$, F to remove = 9.21, $p = .04$) discriminated between those with and without history of self-harm.

This scale is made up of the following four items, hence it was concluded that those with a previous attempt history were: (a) less relieved to be alive than first-timers (C7); (b) more angry at being still alive than first-timers (C7b); (c) realised more strongly that they were putting their lives at risk (C7c); and (d) more likely to think that the parasuicide was an aggressive act (C8).

The mean scores and standard deviations on each of these items are presented in Table 1. The higher the score the greater the agreement. The discriminant function correctly classified 70% of the cases.

Differences between those who verbalize their desire to die compared with those who do not and those who are ambivalent

Individuals who, when interviewed, were still expressing a desire to die were classified as 'verbalizers'. Those who said they did not want to die were labelled 'non-verbalizers' and those who were uncertain were classified 'ambivalents'.

Table 1. Means and standard deviations for items in scale 4

	Scale item	Parasuicidal history	No parasuicidal history
(C7)	Feels relieved that s/he is still alive	0.13 (SD = 1.46)	2.79 (SD = 1.50)
(C7b)	Annoyed that s/he is still alive	1.42 (SD = 1.55)	0.75 (SD = 1.35)
(C7c)	Realised that s/he was putting her life at risk	3.15 (SD = 1.29)	2.63 (SD = 1.28)
(C8)	Thought that this was an aggressive act	1.85 (SD = 1.62)	1.58 (SD = 1.21)

Demographics and interview schedule. There were 21 (42%) verbalizers, 16 non-verbalizers, (32%) and 13 (26%) ambivalents. The three classifications of verbalization of intent did not differ significantly in terms of the demographic characteristics. Interesting differences emerged when the categorical data were analysed. The verbalizers were significantly less likely to be relieved at being alive than the other two groups ($\chi^2(2) = 16.04$, $p < .001$). All of the ambivalents were relieved to be alive and 82% of those who did not want to die were relieved compared with 38.1% of the verbalizers. All of the verbalizers and ambivalents said that they understood the risks associated with their actions compared with nearly two-thirds (62.5%) of the non-verbalizers ($\chi^2(2) = 14.49$, $p < .001$).

Those who wanted to die were least likely to have changed their outlook on life pre- and post-parasuicidal episode ($\chi^2(2) = 7.88$, $p < .02$). Less than one-third (28.6%) had changed their outlook compared with 56% and 77% for the non-verbalizers and ambivalents respectively. Not surprisingly, two-thirds of the verbalizers were more likely to be angry or annoyed at still being alive than the others (non-verbalizers (18.8%) and ambivalents (38.5%), $\chi^2(2) = 8.87$, $p < .05$). More of the verbalizers (76.2%) had a history of self-harm than the non-verbalizers (37.5%) and the ambivalents (30.1%) ($\chi^2(2) = 8.62$, $p < .05$).

It also emerged that those who wanted to die were least likely to feel that confiding in others did any good ($\chi^2(2) = 7.35$, $p < .05$). Of the non-verbalizers and ambivalents, 81% and 92% respectively found confiding in others useful compared to half (52.4%) of the verbalizers. All of the verbalizers reported that the opinion that they held of themselves had changed prior to the attempt ($\chi^2(2) = 7.40$, $p < .05$). The non-verbalizers were least likely to have changed their self-opinion in the time before the parasuicidal episode.

Once again, Scale 4 discriminated between the three groups (Wilks $\lambda = .58$, $F =$ to remove = 16.85, $p < .001$). Table 2 reports the mean responses and standard deviations across these groups in terms of the scale 4 items.

Table 2. Means and standard deviations for the items in scale 4

	Scale item	Wish to die	No wish to die	Ambivalent
(C7)	Feels relieved that s/he is still alive	0.62 (SD = 0.97)	2.69 (SD = 1.49)	3.46 (SD = 0.66)
(C7b)	Annoyed that s/he is still alive	2.00 (SD = 1.64)	0.50 (SD = 1.21)	0.39 (SD = 0.38)
(C7c)	Realised that s/he was putting her life at risk	3.48 (SD = 0.60)	1.81 (SD = 1.61)	3.31 (SD = 0.75)
(C8)	Thought that this was an aggressive act	1.71 (SD = 1.50)	1.38 (SD = 1.50)	2.15 (SD = 1.21)

Surprisingly, the ambivalent group was more relieved at being alive than those who did not want to die. Conversely, those who wanted to die were most annoyed that they were still alive. The ambivalents and those who wanted to die were most likely to realise that they were putting their lives at risk. Not surprisingly, those who did not want to die were least aware of the risk of their actions. Finally, the ambivalents seemed to perceive the parasuicide act as more aggressive than the other two groups. The discriminant function was quite good at discriminating between the groups: it classified 68% of the cases correctly.

Discussion

The findings replicate previous studies which point to the prevalence of self-poisoning among those who deliberately self-harm (Schmidtke, 1997; Vlachos, Bouras, Watson, & Rosen, 1994). Few sex differences emerged. It seems that the psychological pain men and women experience prior to a parasuicide episode does not differ qualitatively. This is in contrast to the gender differences that have been observed among completed suicides (O'Connor & Sheehy, 1997). The identification of gender-specific risk factors will be of limited use in profiling those who deliberately self-harm.

The association between depression and parasuicide is strong. However, many of the 'depressed' parasuicides had not been clinically diagnosed with depression. Hence, it is important to include self-report when considering the contribution of depression. For example, someone who describes him- or herself as being particularly depressed (but not diagnosed as such) may be at greater risk than someone who is clinically diagnosed and on a treatment protocol. Moreover, self-report data are easy to obtain.

One of the underlying aims of this study was to assess the relationship between self-report and suicidal risk. Most of the parasuicides reported feeling alone, but not all of them were living alone. Thus it is not the living arrangement *per se* which is a risk factor but rather its subsequent impact on the individual's psychological well-being (i.e. feeling alone). Similarly, there are many people who live alone through choice and are not at increased risk.

The psychosocial correlates associated with depressed affect and parasuicide in general were particularly evident. Interpersonal problems were most frequently given as the reason for depression, which suggests a need for the promotion of coping strategies to deal with interpersonal relations. However, many people felt that physicians could not offer them solutions to interpersonal problems and associated psychological difficulties. The importance of the link between physical health and depression was also observed.

The majority of those interviewed experienced changes in behaviour in the time prior to the episode. The impact such 'life-style' changes have on psychological health needs to be further investigated. In a developmental context, the aetiology that precedes these changes is quite clear; however, the subsequent repercussions on mental health are vague. These are important variables which, for the most part, have been overlooked. It seems that stressors effect cognitive functioning directly and indirectly. In the first instance, perceived stressors lead to unjustified (often irrational) worry and anxiety which interferes with everyday functioning including regular homeostatic behaviours (i.e. eating and sleeping). These disturbances subsequently impair cognitive processing which in turn

effects on one's psychological well-being. This is a cyclic process, one continually feeding on the other, and this 'dysfunctional' processing culminates in the parasuicide episode. In addition, a critical life event can precipitate the occurrence of the episode. Hence, for the purposes of risk assessment, it is important to look at changes in eating and sleeping behaviours in the context of recent life events. It is not these behaviour changes *per se* which are the risk factors, but rather how they impact on and interfere with psychological well-being. Indeed, it may well be the risk factor is because of a failure to see a link between changes in eating or sleeping and an inability to cope with interpersonal and other difficulties.

The drinking habits of the parasuicides were not as likely to change in the period immediately preceding the episode compared with eating and sleeping. This could be because (a) of patients' unwillingness to provide honest estimates of their drinking habits, or (b) these individuals were normally heavy drinkers. If the latter is the case, they may not be substantially increasing intake.

Unbearable psychological pain and temporary relief from an intolerable situation were the principal reasons given for a suicide attempt. It seems that, for many, the episode is operant: to temporarily stop psychological pain or to highlight a current situation. In terms of prevention and intervention, it is the motivation behind the parasuicide episode, and not the situational variable *per se* (e.g. interpersonal crisis), that is of importance and requires modification. These individuals see suicidal acts as the only way they can (a) temporarily stop their psychological pain, or (b) highlight their current situation. Hence, the identification of constricted logic (coupled with the presence of suicidal risk factors) is central to understanding why people attempt suicide.

It appears that having close friends in which to confide does not buffer against suicide. Of the parasuicides, 60% reported that they had friends in which to confide and 72% felt that confiding in others was useful. This seems counter-intuitive and suggests that confiding in itself is not an effective coping strategy in these cases. Further research needs to look at the types of 'confiding' in which these people engage to determine whether it is qualitatively different from those who do not engage in parasuicide. The possibility that it may be is supported by the finding that the majority of respondents (84%) reported feelings of loneliness even though 60% said that they had close friends in which to confide. Moreover, 58% were in a relationship at the time of the parasuicide episode but only one third felt that their partner was helpful in occasions of need. These people are able to distinguish between a partner and a friend's usefulness in times of need, but still feel lonely even when surrounded by friends. Cognitive distortions pertaining to schemata used to resolve interpersonal difficulties may be important and require further investigation.

Practicality and ease of administration were cited as the main reasons for choosing a particular method of parasuicide. This makes it difficult to arrest the suicide rate by simply reducing access to means, as the majority of parasuicides are ingesting tablets that are readily available over-the-counter.

Seventy per cent said they had wanted to die on the day of their attempt. The fact that nearly half still wanted to die the following day suggests that a failed suicide attempt does not necessarily mark a significant personal threshold that 'changes everything' for the person.

Repeaters

It was hypothesized that first-time attempters would differ from repeat attempters in terms of psychological and psychosocial variables. This was partially supported. Discriminant function analysis revealed that repeaters tended to be less relieved, more angry, more realistic about the risk they had taken, and were more likely to view the attempt as aggression directed towards themselves or others. The repeaters appear more serious about their attempt, express less remorse, and are more angry and aggressive. This supports previous research which posits that repeaters are less distressed, more angry and frequently in violent relationships (Kreitman & Casey, 1988). Hence, it may be useful to include the albeit crude assessment of aggression, remorse and relief in existing risk assessment schedules.

Verbalizers

Repeaters are more likely to state that they want to die than first-timers (Gupta *et al.*, 1995); therefore, it was hypothesized that there would be a relationship between repeat attempt and verbalization of intent (verbalizers). More specifically, it was hypothesized that verbalizers would be more likely to have a history of self-harm than non-verbalizers (or ambivalents). The expected relationship was observed, although it was not significant. Nearly 80% of the verbalizers had a history of self-harm compared to 38% and 30% of the non-verbalizers and the ambivalents respectively.

The final prediction was that the psychological and psychosocial characteristics of the verbalizers would differ from the non-verbalizers and the ambivalents. Few differences between these groups emerged from the analysis of categorical variables. However, the discriminant function analysis revealed that four items from the interview schedule discriminated between the three groups: these were the same variables that discriminated between the first-timers and repeaters. This is not unexpected as there is an established link between verbalization of intent and repeat suicide attempts. The ambivalent group was more relieved at being alive than those who did not want to die. This may reflect their state of mind before the attempt; they realized post-attempt what they 'nearly did' and subsequently expressed greater relief than those who did not want to die. Those who did not want to die (non-verbalizers) were least aware of the risk associated with their actions. Hawton *et al.*, 1996b) recommend that the warnings on medicine dispensers (packets/bottles) should be improved to deter those who are least aware of the serious consequences of ingesting tablets. However, these warnings are unlikely to deter those who already recognize the lethality of their intentions.

This study must be considered in the light of several shortcomings which continually plague this type of research. There may be ethical and methodological concerns about carrying out research so soon after an episode of deliberate self-harm. In terms of ethics, the patients were explicitly informed that participation was voluntary, and that it did not interfere with treatment whatsoever. Many of the patients found it beneficial to talk to someone who was non-judgmental and independent of the hospital authorities. Methodologically, some may argue that there is no merit in data obtained from an interview of this type: perhaps the patients are simply responding to demand characteristics? If this is the case, it also calls into question the psychiatric assessment which took

place, without exception, before the research interview. Nonetheless, the unstable nature of self-report data should be further investigated.

References

- Bille-Brahe, U., Hansen, W., Kolmos, L., & Wang, A. G. (1985). Attempted suicide in Denmark I. Some basic characteristics. *Acta Psychiatrica Scandinavica*, *71*, 217–226.
- Bille-Brahe, U., & Jessen, G. (1994). Repeated suicidal behaviour: A two year follow-up. *Crisis*, *15*, 77–82.
- Diekstra, R. (1989). Suicide and attempted suicide: An international perspective. *Acta Psychiatrica Scandinavica*, *354* (Suppl.), 1–24.
- Gupta, K., Sivakumar, K., & Smeeton, N. (1995). Deliberate self-harm: A comparison of first-time cases and cases with a prior history. *Irish Journal of Psychological Medicine*, *12*(4), 131–133.
- Hassanyeh, F., O'Brian, G., Holtm, A. R., Hurren, K., & Watt, L. (1989). Repeated self-harm: An 18 month follow-up. *Acta Psychiatrica Scandinavica*, *79*, 265–267.
- Hattori, T., Taketani, K., & Ogasawara, Y. (1995). Suicide and suicide attempts in general hospital psychiatry—clinical and statistical study. *Psychiatry and Clinical Neurosciences*, *49*(1), 43–48.
- Hawton, K. (1987). Assessment of suicide risk. *British Journal of Psychiatry*, *150*, 145–153.
- Hawton, K. (1992). By their own hand. *British Medical Journal*, *304*, 1000.
- Hawton, K., & Fagg, J. (1992). Trends in deliberate self-poisoning and self-injury in Oxford, 1976–1990. *British Medical Journal*, *304*, 1409–1411.
- Hawton, K., Fagg, J., & Simkin, S. (1996a). Deliberate self-poisoning and self-injury in children and adolescents under 16 years of age in Oxford, 1976–1993. *British Journal of Psychiatry*, *169*(2), 202–208.
- Hawton, K., Fagg, J., Simkin, S., & Mills, J. (1994). The epidemiology of attempted suicide in the Oxford area, 1989–1992. In A. J. F. M. Kerkhof, A. Schmidtke, U. Bille-Brahe, D. De Leo, & J. Lonnqvist (Eds.), *Attempted suicide in Europe* (pp. 96–106). Leiden: DSWO.
- Hawton, K., Ware, C., Mistry, H., Hewitt, J., Kingsbury, S., Roberts, D., & Weitzel, H. (1996b). Paracetamol self-poisoning. Characteristics, prevention and harm reduction. *British Journal of Psychiatry*, *168*, 43–48.
- Hughes, T., & Owens, D. (1995). Can attempted suicide (deliberate self-harm) be anticipated or prevented? *Current Opinion in Psychiatry*, *8*(2), 76–79.
- Kreitman, N., & Casey, P. (1988). Repetition of parasuicide: An epidemiological and clinical study. *British Journal of Psychiatry*, *153*, 792.
- O'Connor, R. (1997). *Suicide and parasuicide: Aspects of identification and prevention*. Unpublished PhD thesis, Queen's University Belfast.
- O'Connor, R., & Sheehy, N. (1997). Suicide and gender. *Mortality*, *2*(3), 239–254.
- Ojehagen, A., Regnill, G., & Traskman-Bendz, L. (1991). Deliberate self-poisoning: Repeaters and non-repeaters admitted to an intensive care unit. *Acta Psychiatrica Scandinavica*, *84*, 266–271.
- Owens, D., Dennis, M., Read, S., & Davis, N. (1994). Outcome of deliberate self-poisoning. An examination of risk factors for repetition. *British Journal of Psychiatry*, *165*, 797–801.
- Platt, S., Hawton, K., Kreitman, N., Fagg, J., & Foster, J. (1988). Recent clinical and epidemiological trends in parasuicide in Edinburgh and Oxford: A tale of two cities. *Psychological Medicine*, *18*, 405–418.
- Schmidtke, A. (1997). Perspective: Suicide in Europe. *Suicide and Life-threatening Behavior*, *27*(1), 127–136.
- Schnyder, U., & Valach, L. (1997). Suicide attempters in a psychiatric emergency room population. *General Hospital Psychiatry*, *19*, 119–129.
- Suokas, J., & Lonnqvist, J. (1991). Outcome of attempted suicide and psychiatric consultation: Risk factors and suicide mortality during a five year follow-up. *Acta Psychiatrica Scandinavica*, *84*, 545–549.
- Thomas, S. H. L., Bevan, L., Bhattacharyya, S., Bramble, M. G., Chew, K., Connolly, J., Dorani, B., Han, K. H., Horner, J. E., Rodgers, A., Sen, B., Tesfayohannes, B., Wynne, H., & Bateman, D. N. (1996). Presentation of poisoned patients to accident and emergency departments in the north of England. *Human and Experimental Toxicology*, *15*, 466–470.

- Vlachos, I. O., Bouras, N., Watson, J. P., & Rosen, B. K. (1994). Deliberate self-harm referrals. *European Journal of Psychiatry*, 8(1), 25–28.
- Welcher, B., Rubin, P., & Nordentoft, M. (1993). Admission of self-poisoned patients during one year at the Poisoning Treatment Centre, Copenhagen, Denmark. *Acta Psychiatrica Scandinavica*, 371 (Suppl.), 38–44.

Received 24 June 1998; revised version received 12 March 1999