

PARASUICIDAL BEHAVIOUR IN A FORENSIC-PSYCHIATRIC

POPULATION

AND

RESEARCH PORTFOLIO

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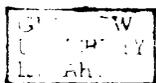
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CHAPTER 1: SMALL SCALE SERVICE EVALUATION PROJECT

A Profile of the Psychology Service to a Community Addiction Team

Written for Submission to the Clinical Psychology Forum
(see appendix 1.1 for Notes for Contributors)

Introduction

The Scottish Needs Assessment Programmes on Addictions (SNAP) (Wrench et al. 1994) listed as one of their recommendations that “a comprehensive psychiatric service should have a Community Addiction Team (CAT) or Misuse Integration Team (S.M.I.T.)”. Furthermore, they recommended that “research should be focused on evaluating and monitoring the needs of clients and the effectiveness of services in meeting these needs”. Thus, as part of the Lanarkshire Community Care plan 1995 - 1998, the Community Addiction Team (CAT) was set up in order to provide a multi-professional, multi-agency approach to working with people who are deemed to have an alcohol, drug or other addiction problem, although at the time of writing, evaluative work had yet to be undertaken.

Despite the fact that the present climate places great emphasis on service evaluation (Barkham 1995, Halstead 1996, Parry, 1992) there is very little reference to CATs in the research literature. Descriptions of Community Drugs Teams and Community Alcohol Teams can be found (Clement 1989, Franey 1993, Schneider 1989) but have tended to provide general descriptions emphasising the diversity of service delivery by the teams. As there is no specific documentation regarding the role of a clinical psychologist in a CAT, it appears that there is a necessity for such a profile to be undertaken.

Background and aims

The community addiction team under study comprised of five psychiatric nurses and two psychiatrists. In addition, one psychologist provided input to the team on a part time basis. In the first six months of the service, twenty nine people were referred to the psychologist and within nine months all had been offered appointments. Although initially there was no formal referral criteria, after four months, the psychologist provided the team with a list of criteria to refer to (see appendix).

As the psychologist was only able to input four sessions to the team, it was recognised that to prevent waiting lists from building up there had to be effective referral procedures as well as efficient use of the psychologist's time. The overall aim of the present study was to offer a profile and evaluate aspects of the psychologist's input in to the CAT in Lanarkshire, with two general questions in mind.

1. Are there effective referral procedures in place?

To explore this question it was decided firstly to profile the types of referrals received and then conduct an evaluation of these in order to ascertain if the referrals met the psychologist's criteria and secondly, to profile the referral procedures and evaluate if the CAT members were satisfied with them.

2. Is the clinical psychologist's time being used effectively?

To investigate whether the psychologist's time was being used effectively, it was decided to profile her input and evaluate it via team members' opinions.

Method

The collection of data involved a combination of information gathering from the 29 case notes and semi structured interviews with the 7 CAT members (see appendix 1.2).

Referrals

Profile

To provide a profile of the referral process and type of referrals, information was gathered from case notes regarding the demographics, source of referral, the nature and status of the addiction problem, involvement by other CAT members and the nature and estimated duration of intervention.

Evaluation

In order to evaluate the referral procedure in terms of whether presenting problems fell within the psychologist's criteria (see appendix 1.3), a comparison had to be made. The department of psychology routinely rated referrals according to EPPIC¹ problem formulation categories and in this instance the psychologist re-rated the individuals post assessment. EPPIC categories consist of 4 categories, 2 broad and 2 fine. Broad categories represent the main presenting problem formulation and there are 14 problems listed. Fine categories represent the detailed problem formulation and there are 67 problems listed. To rate each referral letter, the psychologist picks out information from the letter and codes it according to the problem lists. In order to

¹ EPPIC (Effective Purchasing and Providing in the Community) - Ayrshire and Arran Consulting and Clinical Psychology Dept.

establish whether or not the main problems identified by the referrers and at assessment by the psychologist conformed with the referral criteria, a simple check of the EPPIC diagnostic categories (broad) was made against the list of criterion.

In order to evaluate whether the CAT member's were satisfied with the referral procedure they were asked firstly if they considered there to be any missing criteria and secondly if they believed there to be any criteria they deemed inappropriate or better dealt with by other professionals on the team.

Use of Psychologist's time

Profile

Asking the psychologist to document a typical week's sessions provided a brief profile of the psychologist's time.

Evaluation

Firstly D.N.A rates were calculated by computing the total appointments not attended as a percentage of total appointments offered in order to get a sense of how much of appointment time was wasted.

Secondly, CAT members were asked to express their opinion on how useful they felt different modes of intervention to be. This included individual therapy, group work, consultancy and teaching. They were also asked to rate these on how they believed the psychologist could best use her time.

As part of the interview, the staff were also asked to consider how satisfied they were with the waiting time, and the service in general. In addition, they were asked to make suggestions about improvements to the psychology service to the team.

Results

Referrals

Profile

- *Procedure*- Patients were referred to the psychologist via the weekly team meeting. There was no opt-in system.
- *Demographics* - Clients were accepted for treatment by the CAT if they had an alcohol, drug or other addiction problem as their primary presenting difficulty. The mean age was 41 years and the sample were mostly male (18 males, 11 females).
- *Source* - Of the 29 referrals, 15 were referred by the nursing staff, 10 by psychiatry and 4 by other sources.
- *Addiction problem* - The vast majority (24) of these referrals had an alcohol problem with only 2 having a drug problem and 3 with both. The status of their addiction problem was noted at assessment by the psychologist and of those assessed (8 did not attend their first appointment), 8 were labelled 'controlled'; 7 'ongoing' and 6 'fluctuating'.
- *CAT involvement* -Six out of those assessed had previous CAT involvement and 19 had ongoing CAT involvement.
- *Intervention* - Of those referred, almost two thirds (20) were referred for therapeutic intervention, 8 for neuropsychological assessment and 1 for both. The psychologist also rated whether she considered the client to require long or short

term intervention. Of those assessed, 13 were deemed long term (defined as requiring more than 8 sessions) and 8 as short term (defined as requiring less than 8 sessions).

Evaluation

- *Conformity of presenting problems with criterion-* Looking at the broad EPPIC categories at referral, 9 problems were identified - anxiety, depression, anxiety and depression, behaviour/conduct, habit/dependency, psycho-biological, social adjustment, cognitive functioning and sexual abuse. At assessment, a further 2 were identified - PTSD and 'other' (specified as drug induced psychosis). These identified main presenting problems did appear to conform to the referral criteria.
- *Staff opinions* - With regards staff attitudes about the referral criterion, the results showed that, of the 3 who believed there to be missing criteria, one stated that it would be useful to get psychological input into the addiction problem, another relationship problems, and the third, bereavement counselling. All 7 stated that they believed there to be no inappropriate criteria.

Psychologists time

Profile

Out of the total 4 sessions, the psychologist had 2 1/2 clinical sessions, 1 session for administration and consultation and 1/2 session for the team meeting. The psychologist was to be involved in running a group in the near future and had conducted 1 teaching session to date. Obviously with such little clinical input available it was important to determine the number of wasted appointments that the psychologist encountered. In the 9 months studied for this purpose, the psychologist

had offered a total of 119 appointments to the 29 clients. Of these, 36 were not attended and 8 were cancelled. The overall 'DNA' rate then was at about 30%. More specifically, over a quarter of the clients (8 out of the 29) did not turn up to their initial appointment and, having not responded to subsequent correspondence, were discharged.

Evaluation

CAT members were asked via interview to consider how the psychologist's time is used and to rate different types of interventions used on a scale of 1 to 5 from very ineffective use of time to very effective use of time. The results were as follows with the number staff rating each item presented in table 1, below.

| Rating | Type of intervention | | | |
|------------------------------|-----------------------------|-------------------|--------------------|-----------------|
| | 1 to 1 | Group work | Consultancy | Teaching |
| Very effective use of time | 6 | 2 | | 1 |
| Effective use of time | 1 | | 6 | 5 |
| Don't know/okay | | 3 | 1 | 1 |
| Ineffective use of time | | 1 | | |
| Very ineffective use of time | | 1 | | |

Next, they were asked to rank order the intervention options. The table following shows how many staff ranked the options 1st, 2nd, 3rd or 4th

| Rank | Type of intervention | | | |
|---------------|-----------------------------|------------|-------------|----------|
| | 1 to 1 | Group work | Consultancy | Teaching |
| Ranked first | 6 | 1 | | |
| Ranked second | | 2 | 5 | |
| Ranked third | 1 | 1 | 2 | 3 |
| Ranked fourth | | 3 | | 4 |

It was clear that while the majority of the staff team deemed 1 to 1 individual therapy to be the most efficient use of time, groupwork was the only type of intervention to be viewed unfavourable by any of the team members. The most popular form of intervention, rated by 6 of the 7 staff, was the individual therapy, deemed very effective use of time by 6 and ranked first by the same 6 raters. This was followed by consultancy whereby 5 of the 7 raters ranked it second. However, there was much variance in their opinions over the usefulness of teaching and groupwork as modes of intervention.

The staff were also asked for their general opinions regarding the service. Six out of the seven claimed they were satisfied with the waiting time to see a psychologist (which at the time of interviews stood at 12 weeks, with 10 clients). When asked to rate their general satisfaction with the psychology service 4 claimed they were satisfied, 2 very satisfied and one was somewhat satisfied. When asked for ideas for

changes and improvements, 6 of the staff claimed the service would be improved by increasing the hours from part time to full time.

Discussion

The first objective of this report was to provide a profile of the referral system and the ways in which one psychologist's time is used in the CAT in Lanarkshire - this has been clearly outlined in the above results section.

The second aim of the report was evaluate those aspects of the service. With regards the referral system, it is clear that it was effective in that the main presenting problems as outlined by the EPPIC categories did conform to the referral criteria decided by the psychologist herself. In addition, on the whole, staff were satisfied with the criteria and offered only 3 additional suggestions to be considered by the psychologist.

With regards the use of time the staff were, on the whole, in agreement that individual client time and consultancy, which were the primary means of intervention, were most effective. There was, however, variation in agreement over the perceived effectiveness of groupwork and teaching, neither of which were prominent intervention techniques at the time of the study. It would be of interest in the future to evaluate client opinions regarding modes of intervention to ascertain if their ideas are consistent with the professionals who provide the service.

Another important issue was that it was evident from analysis of appointment attendance that up to a third of psychology appointments were not attended. This is consistent with other research findings (Hughes 1995, Weighill 1983). It was interesting that there was no opt-in system for the CAT as some research has suggested that such a system can have marked effects on D.N.A. and drop-out rates (Markman 1990). It would be a reasonable recommendation to make to consider implementing such a system in the future with the hope that the psychologist's and the rest of the CAT members' time could be used more efficiently.

Finally, all seven CAT member's stated that they were satisfied or very satisfied with the psychology service, with their only recommendation being that they would like it full-time, thus one could propose that psychology has a valid and constructive part to play in community addiction teams.

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CHAPTER 2: MAJOR RESEARCH PROJECT LITERATURE REVIEW**Parasuicidal Behaviour within a Forensic-Psychiatric Population – Background,
Motivational and Psychological Factors.**

Written for submission to *The British Journal of Clinical Psychology*

(see appendix 2.1 for notes for contributors)

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Parasuicidal Behaviour within a Forensic-Psychiatric Population – Background, Motivational and Psychological Factors.

Abstract

Purpose - The purpose of this review was to examine various factors associated with parasuicide in a forensic-psychiatric population. The factors of interest were background variables, motivations, and psychological factors (problem solving ability).

Method - Studies concerning the target factors were reviewed from the forensic-psychiatric literature. However, as very few relevant studies were found to have been conducted in this population, the author sought to review studies from other related areas – in forensic, psychiatric and community populations.

Findings - A number of background factors were found to be associated with parasuicide in the various populations examined. These included previous psychiatric history, previous forensic history, previous sexual abuse, a diagnosis of personality disorder, alcohol and drug abuse, and age.

Various reasons for parasuicidal behaviour were also identified. In some cases, the primary motivation was intent to die, but a number of alternative motives were identified, including symptom relief, psychiatric disturbance, influencing someone and discharging anger.

A number of studies outwith the forensic-psychiatric population reviewed indicated that parasuicide is associated with poor inter-personal problem solving ability. There is an ongoing debate regarding whether poor interpersonal problem solving ability is a trait or state phenomena.

Conclusions - There is very little information regarding parasuicidal behaviour in special hospitals. The few studies which have examined this area have identified some background and motivational factors but have failed to examine psychological factors associated with the behaviour. There is a necessity to further our knowledge of these factors in this population in order to improve assessment and intervention strategies.

Parasuicidal Behaviour within a Forensic-Psychiatric Population – Background, Motivational and Psychological Factors

Introduction

Research into parasuicidal¹ behaviour of individuals residing in forensic-psychiatric populations is limited and in the main appears to be very descriptive in nature. For example, two authors investigating parasuicide over a 6 month period in a special hospital (Burrow, 1992) and in a regional secure unit, (Garner, 1994) both described patterns of incidents (type and severity of self harm, gender distribution, diagnosis, timing and location, and nursing management) and from this recommended clinical management improvements. However, there was no focus upon motives, background factors or psychological factors. Two studies have investigated background factors and a third, motivational factors.

Hillbrand et al. (1994), looking at hospitalised forensic patients in a maximum security hospital compared background variables between fifty-three self-mutilating patients (who had self mutilated at least once in previous year) with fifty patients who had not engaged in self mutilation. They found significant differences in terms of age (self mutilators were younger, $p < 0.01$), diagnosis (self mutilators were more

¹ Research in the area of parasuicide is complicated by the various definitions used in the literature to describe self-harm. Several different terms are used - from general terms (intentional self-harm, self-injury, parasuicide, and self-mutilation) to more specific terms (self-cutting, self-poisoning). It is clear that many researchers use different terms to describe the same behaviour and the same terms to describe different behaviours. Unless the research cited in this paper has used alternative terminology, the term parasuicide, meaning an act of nonfatal, intentional self-harm (Kreitman, 1977) will be used. This is because the term parasuicide does not infer whether the intent of the self-harm act was to cause death, to problem solve by manipulating the environment or to simply escape. It is therefore a useful term to use in any research involving studying individuals whose motivations are unclear.

likely to have a diagnosis of personality disorder or 'mental retardation' ($p < 0.05$) and in terms of legal status (self mutilation was found to be less prevalent in insanity acquittees than civil or correctional patients ($p > .01$)).

In a follow-up study Hillbrand et al. (1996), investigated differences within the self mutilating group, comparing those who had harmed themselves on one occasion in the last year ($n=28$) and those who had engaged in repetitive acts ($n=25$). They examined the same background factors as above and found significant differences only in terms of length of stay, where repeaters had resided in the hospital for longer ($p=0.05$).

Liebling (1997) investigated motivations behind self-harm with women in an English Special Hospital. She interviewed 40 women who had all self-harmed at some point in their lives. Results indicated that for those women who self harmed in the hospital, 50% claimed it was linked to being in the hospital (being locked in, attitudes of staff and patients). The majority of women first self harmed in their teens and claimed that self harm allowed them to cope with sexual, physical and psychological abuse. The reasons given for present self-harm were commonly in order to alleviate depression, to regain control, to reduce feelings of anxiety and to communicate their distress. Most (65%) endorsed their intention to kill themselves. Liebling points to environmental deficits, the ward environment, staff attitudes and inadequate staff training.

In order to examine the background factors and motivation behind parasuicide further one has to look at research from other institutional settings such as prisons and psychiatric hospitals and in community samples.

Background factors

Table 1 summarises pertinent research investigating the background factors associated with parasuicide. The literature regarding background variables associated with parasuicide tends to indicate aspects such as previous psychiatric history (Ivanoff, 1992a; Fulwiler, 1997), previous forensic history (Stevenson and Skett, 1995), previous sexual abuse (Coid and Wilkins, 1991; Yeo and Yeo, 1993; Adshead 1994), a diagnosis of personality disorder (Coid and Wilkins, 1991; Gupta and Trepacz, 1997), alcohol and drug abuse (Coid and Wilkins, 1991; Ivanoff, 1992a) and age, where parasuicide was found to be associated with younger age groups (Coid and Wilkins, 1991; Gupta and Trepacz, 1997).

Insert table 1 here

Motivations

As mentioned previously, parasuicide research is complicated by the different terms used, particularly because some of the definitions carry with them the assumption that the parasuicide act is a form of attempted suicide. While, for some, this is the

primary motivating factor, many people engage in parasuicide without suicidal intent.

A number of studies have identified alternative motives for parasuicide (see table 2 below). The reasons given by people who self harm are very varied, for example, for symptom relief (Bancroft et al. 1976; Coid and Wilkins, 1991); due to psychiatric disturbance (Power and Spencer, 1987; Michel et al. 1994); in order to influence someone (Bancroft et al. 1976; Power and Spencer, 1987; Coid and Wilkins, 1991; Himber, 1994) and discharge of anger (Himber, 1994).

Michel et al. (1994) categorised motivations into two useful broad categories - interpersonal (attempting to influence another) or intrapersonal (attempting to relieve an intolerable state of being). As seen in table 2, most of the reasons given are consistent with those outlined by Michel, in that they can be viewed as being intrapersonal or interpersonal. Leibling in her study (outlined above) found that those women in special hospitals who self harmed also tended to give both intra- and inter-personal reasons.

Insert table 2 here

Psychological factors

A number of researchers have examined the area of interpersonal problem solving skills (IPSS) and parasuicidal behaviour. This was a result of a number of observations. Firstly, as outlined above, a number of people who engage in

parasuicide cite interpersonal problems as a precipitating motivating factor. Secondly, a number of early studies pointed to the fact that parasuicidal individuals have problem-solving deficits as measured by impersonal problem solving measures. For example, Levenson and Neuringer (1971) when studying suicidal adolescents found that they had problem-solving deficits as measured by the Wechsler Adult Intelligence Scale (WAIS) arithmetic subscale and the Rokeach Map Reading Problems Test. However, impersonal problem solving does not correlate highly with interpersonal measures (Schotte and Clum, 1982) thus the same authors pointed to the need to explore interpersonal problem solving deficits in parasuicidal individuals. Since then, several investigators have addressed the issue of how the two interact.

Schotte and Clum (1982) compared college students on IPSS using the Means End Problem Solving Test (MEPS). This assessment provides the respondent with interpersonal situations for which he or she is presented with a stated need and a desired outcome. The participant is instructed to provide the middle portion of the story in which the protagonist is to achieve the stated goal. A number of dimensions can be scored giving insight into the problem solving skills of the individual. The results indicated that those with poor interpersonal problem solving ability and under high life stress were more likely to report very severe suicidal ideation and intent.

In order to understand the relationship between IPSS and parasuicidal behaviour, Schotte and Clum (1987) proposed a diathesis- stress- hopelessness model of suicidal behaviour, where individuals with poor interpersonal problem solving skills are predisposed under stressful situations to feel hopeless and therefore engage in parasuicidal behaviour. They are deemed not to be able to generate enough solutions

to their presenting problem and therefore engage in parasuicidal behaviour in an attempt to cope with the situation.

In their study, Schotte and Clum (1987) examined the support for this model and compared 100 psychiatric inpatients on suicide watch with a control group of non-suicidal psychiatric inpatients on various measures including the MEPS. The suicidal group reported significantly higher levels of negative life stress and had significantly less relevant means on the MEPS. In addition, the level of negative life stress positively correlated with hopelessness and level of suicide intent. An interesting observation was that these results occurred in the absence of differences between the groups in depression, thus depression alone could not account for the poorer MEPS scores.

Similar results have been found by other authors using the MEPS (Goodstein, 1982; McLeavey, 1987; and Evans et al., 1992) and using other measures of IPSS (Sadowski et al., 1993 using D'Zurilla and Nezu's Social Problem Solving Inventory; Dixon, 1991 and Rudd, 1994 both using Heppner's Problem Solving Inventory). There are some difficulties in using measures such as the Problem Solving Inventory, however in that it measures *self-appraisal* of IPSS not *actual* IPS skill.

These results appeared to support the diathesis stress model of suicidal behaviour. The question of whether IPSS is a state or trait phenomena was raised, however, due to the lack of prospective data proving that IPSS difficulties precede the parasuicidal event. Schotte and Clum (1987) suggested that the results could be explained as well

using a state model of IPSS whereby, IPSS deficits are an *artefact* of the parasuicidal situation not a precipitating cause. A number of studies have been conducted in order to examine this further.

Linehan (1987) points out that the MEPS scoring system is inadequate and therefore developed a new scoring system whereby passive solutions (someone else solves the problem) does not equal active self-initiated solutions. The authors looked at the relationship between IPSS, assertiveness and suicidal behaviour and proposed that interpersonal problem solving deficits are stable characteristics (traits). They proposed that differences between groups (parasuicides, ideators and nonsuicides) would be greater with those with no history of parasuicide than those with a history of parasuicide. The findings were that

1. In those individuals with no history of parasuicide, current parasuicide patients were better at active interpersonal problem solving and had less passive problem solving means than ideators
2. When patients with a previous history of parasuicide were compared there were no differences between the groups (ideators and the parasuicides)

The authors suggest that the findings support the hypothesis that interpersonal problem solving deficits are stable characteristics of parasuicide rather than artefacts of the stress of the current parasuicidal episode. They argued that if interpersonal problem solving was in fact a state phenomena then one would expect differences between the groups irrespective of a history of parasuicide.

In furthering their examination of the state-trait debate, Kehrer and Linehan (1996) conducted a prospective study of problem solving and parasuicide, taking measures at four month intervals over a year. The participants were 33 subjects with a recent history of parasuicide. The Revised MEPS was used with further revisions to the scoring where in addition to the active/passive dimension, inappropriate responses (substance abuse, aggression towards others, lying and parasuicidal behaviour) were also examined. The findings were that inappropriate problem solving at the four and eight month assessment points significantly predicted subsequent parasuicide, whereas active and passive responses did not. The authors conclude that the MEPS with its modified scoring criteria is a good predictive tool for parasuicidal behaviour. The results also support the trait theory of problem solving behaviour in that poor problem solving can predispose someone to parasuicidal behaviour.

Schotte et al. (1990) challenged the diathesis-stress-hopelessness model by examining the stability of IPSS in a short term, longitudinal study of hospitalised suicide ideators (n=36) all with current suicide ideation. The results indicated not only a marked reduction in depression and in suicide intent but there was a significant effect for time (over a week) on the MEPS, with IPS skills apparently improving. The authors claimed that the trait vulnerability model would require the patient to remain the same at time 2 and that IPSS are concomitant with, rather than the cause of suicide intent, depression and hopelessness. It is arguable however that to make a firm conclusion about this, it would be necessary to examine the effects of time on a control sample of non-parasuicidal controls.

Ivanoff (1992b) also provides evidence challenging the trait model of suicidal behaviour. He examined the effects of a parasuicidal history among suicidal and nonsuicidal inmates on interpersonal problem solving (MEPS) and standard affective and suicidal measures (BDI, BHS, coping inventory). In those subjects with a parasuicidal history, no differences were found between those who were suicidal and those who were non-suicidal on measures of IPSS. In addition, no differences were found in affective-suicidal or IPSS measures among currently non-suicidal inmates with and without parasuicide histories.

The authors claim that this evidence is contrary to the stress diathesis model and suggests that interpersonal problem solving deficits do not predispose inmates under stress to depression, hopelessness and suicidal ideation. Also, they claim that parasuicide history does not have an effect on current problem solving performance. The authors argue that these combined results provide evidence for a state model of problem solving and suggest that the reason they did not find differences between currently suicidal and currently non suicidal individuals is due to the nature of the population studied (that those in a prison population differ from other populations on variables such as mental health status and substance abuse). The author did suggest however that perhaps the role of IPS deficits in suicidal behaviour may be more complex and interactive than dichotomous – that is neither state nor trait. This is clearly an area for further research.

Despite the fact that it remains unclear about the exact nature of the role of IPSS and parasuicide, it is interesting to note that those interventions, which have had a positive effect upon parasuicide repetition, tend to incorporate IPSS training

(Salkovskis, 1990; McLeavey, 1994; Linehan, 1993). This appears to confirm that IPSS deficits have an important role to play in terms of parasuicidal behaviour and reinforces the need for additional research to further our understanding of the relationship between IPSS and parasuicide.

Conclusions

The findings from above appear to support the hypothesis that people who engage in parasuicidal behaviour and or exhibit suicidal ideation have poorer interpersonal problem solving skills. Although there is some evidence disputing the trait theory, Linehan (1987 and 1996) have shown that the original scoring of the MEPS is limited in scope and that by revising the scoring procedures one can use the MEPS in predicting future parasuicidal behaviour. It would therefore be interesting to rescore the MEPS in the studies that did not support the theory in order to see if the predictive value altered in favour of the trait model.

Further research also appears necessary in the area of suicidal intention. Much of the research assumes self-harm behaviour as being suicidal without any form of analysis of the intention behind the behaviour. At this stage it is difficult to conclude that only suicidal behaviour is linked with IPSS deficits. It may be that parasuicidal behaviour without suicidal intent, even if it is a result of intrapersonal difficulties is also a function of interpersonal problem solving difficulties in that the individual is unable to communicate their distress to others in a 'conventional' manner. Clearly further research is required to clarify this further.

With regard parasuicide in forensic-psychiatric hospitals however, there is a necessity for very basic analysis of problem solving deficits in those patients who self harm. The only work so far has been with non-clinical, psychiatric or forensic populations. It would be interesting therefore to examine whether the association between parasuicide and interpersonal problem solving exists in this population.

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Table 1 Background factors associated with parasuicide (continued on next page)

| Authors | Population | Measures | Participants | Controls | Findings |
|----------------------------|-------------------------|---|---|--|---|
| Coid and Wilkins (1991) | Prison inmates (female) | Clinical interview (DSM-III) and semistructured interview using item sheet. | Remanded women with a history of self-mutilation (n=74) | Remanded women with no history of self-mutilation (n=62) | Self mutilators were younger ($p<0.005$) were more likely to have committed property damage ($p<0.05$) and their first conviction was at a younger age ($p<0.001$). More of the self mutilators had a history of alcohol abuse, impulse disorders and were more likely to have a diagnosis of personality disorder ($p<0.001$). The mutilators were also more likely to report disruptive family experiences before the age of 16 ($p<0.001$) and sexual abuse ($p<0.005$). |
| Stevenson and Skett (1995) | Prison inmates (male) | Semi-structured interview | Inmates who had self harmed (n=22) | Inmates who thought about self harm (n=32) and inmates with no acts or thoughts about self harm (n=20) | Self-harmers were less likely to be single ($p=0.00$) and unemployed ($p=0.00$). They were more likely to have been in prison before ($p=0.03$); to have been convicted of robbery ($p=0.03$); to have self harmed in previous sentences ($p=0.01$) and in the community ($p=0.03$) and to have suffered previous, self reported episodes of depression. |

| Table one continued – background factors associated with parasuicide | | | | | |
|--|------------------------------------|--|--|---|---|
| Authors | Population | Measures | Participants | Controls | Findings |
| Fulwiler et al. (1997) | Prison inmates (male and female) | Standard clinical information protocol | Self mutilators without intent to die (n=15) | Suicide attempters (with intent to die) (n=16) | Significant differences were found in terms of diagnosis with more of the attempters being diagnosed with major affective disorders ($p<0.001$) and more of the mutilators with mixed dysthymic and anxiety symptoms ($p<0.001$). In addition, more of the mutilators had a history of childhood hyperactivity ($p<0.001$) and learning disorder ($p<0.01$) than the attempters. |
| Gupta and Trepacz (1997) | Community sample (male and female) | File reviews and semi-structured interview | Overdose patients (OD) admitted to general hospital (n= 207) | Non-overdose (NO) self injury cases (n=53) and medical/ surgery patients with (SI) suicidal ideation (n=79) | Attempters (OD and NO) were younger than the SI group ($p<0.001$). The OD group was mostly female and the NO and SI group were mostly male ($p<0.001$) More OD cases were separated and more SI were widowed ($p<0.01$). More of the OD group had received inpatient care ($p=0.02$). There were no differences in terms of major DSM-III-R diagnoses, but personality disorder distinguished the groups with the OD group having more borderline patients ($p=0.005$). |

Table 2 – Motives for parasuicide (continued on next page).

| Authors | Population | Measures | Subjects | Controls | Results |
|--------------------------|---|--|--|--|---|
| Bancroft et al. (1976) | Community sample (Male and female) | Semi-structured interview regarding reasons for overdose. | 128 overdose patients (89 women, 39 men) | None | Wish to die - 44 % indicated they wanted to die Other Reasons for OD – seek help (33%); escape situation (42%); relief from state of mind (52%); influence someone (19%) |
| Power and Spencer (1987) | Young offenders institute (male and female) | Beck suicide intent scale, measure of medical lethality, semi-structured interview | 76 male inmates who threatened to or self injured with some degree of suicidal intent being expressed. | None | Mostly low medical lethality and low subjective and objective suicide intent. Motivational precipitants – protection (n=38), manipulation (n=21), emotional upset (n=14) psychiatric disturbance (n=2) |
| Coid and Wilkins (1991) | Prison inmates (female) | Clinical interview (DSM-III) and semi-structured interview using item sheet. | Remanded women with a history of self-mutilation (n=74) | Remanded women with no history of self mutilation (n=62) | 40% in order to gain symptom relief (i.e. anxiety, anger, depression, emptiness), 14% to attract attention, 12% to attempt suicide and 5% to get revenge on others. 69% described their symptoms being relieved by the behaviour. |

Table 2 continued – motives for parasuicide

| Authors | Population | Measures | Participants | Controls | Results |
|-------------------------|---|--|---|---|--|
| Himber (1994) | Psychiatric hospital (female) | Semi-structured open-ended interview. | 8 psychiatric patients who engaged in self cutting | | Suicidality – none of the women intended to commit suicide. Reasons- various overlapping reasons – induction of a pleasurable state, tension release, affect modulation, discharge of anger, communication, self-purification, self punishment and enhancement of self esteem.(no figures were given) |
| Michel et al. (1994) | General and psychiatric hospitals (male and female) | Semi-structured interview exploring reasons for suicide attempt | 66 suicide attempters | | Spontaneous reasons - relationship problems (33%) followed by emotional crisis (21%), and psychiatric illness (15%). Rated motives were more likely to be intrapersonal (relief from an unbearable mental state) than interpersonal (wanting to affect others' behaviour) ($p<0.001$) |
| Fulwiler et al. (1997) | Prison inmates (male and female) | Standard clinical information protocol | Suicide attempters (with intent to die) (n=16) | | Reasons for self mutilation – 1. attempt to manipulate officials (n=5) 2. Relieve anxiety or tension (n=9) 3. Following command hallucinations (n=2) |
| Kemperman et al. (1997) | Psychiatric | Visual Analogue Scale (VAS) measuring affect during typical self-injury. | BPD-P group (n=26) Borderline personality group who self injured and felt pain | BPD-NP group (n=16) Borderline personality self-injurers who felt no pain. | Significant decrease in ratings of negative affect ($p=0.00$), increase in positive affect ($p=0.00$) and decrease in dissociation over the act of self-injury. Only group difference was BPD-NP group had higher rating of dissociation across all states of SIB ($p=0.001$) |

CHAPTER 3: MAJOR RESEARCH PROJECT PROPOSAL

Parasuicidal Behaviour in a Forensic - Psychiatric Population

RESEARCH PROJECT PROPOSAL

Applicant: Karen M Allan

Title: Parasuicidal Behaviour in a Forensic-Psychiatric Population

Summary: The following proposal outlines the author's intent to investigate various factors associated with parasuicidal behaviour in a forensic-psychiatric population. The factors of interest are background variables, motivational factors and psychological factors (problem-solving ability).

The proposed methodology involves comparing two groups of individuals in a special hospital, a parasuicide group (individuals who have engaged in the behaviour in the preceding 2 years, n = 36) and a comparison group (individuals who have never engaged in the behaviour, n = 36).

It is proposed, consistent with previous findings, that differences will be found between the two groups in terms of background factors and in terms of problem solving abilities. With regards to background factors, it is hypothesised that more of the parasuicide group than the comparison group will be younger, have been sexually abused, have a drug and alcohol abuse history and have a diagnosis of personality disorder. With regards to problem solving ability it is hypothesised

that the parasuicide group will be poorer interpersonal problem solvers than the comparison group.

In addition, the parasuicide group will be interviewed for their motivations behind their behaviour with a view to identifying different inter- and intra- personal reasons.

The procedure will involve reviewing case files in order to examine background factors, administering semistructured interviews to identify motivations and using the Means End Problem Solving Procedure to identify differences between the groups on interpersonal problem solving abilities.

It is proposed that the study (which will take place in the State Hospital, Lanarkshire, Scotland) will hopefully aid future assessment and intervention strategies.

Introduction

Research in the area of parasuicide in forensic-psychiatric populations is limited and in the main appears to be very descriptive in nature. For example both Burrow (1992) and Garner (1994) described patterns of incidents and recommended clinical management improvements but did not focus on motives, background factors or psychological factors. Hillbrand et al. (1994), looking at hospitalised forensic patients in a maximum security hospital compared background variables between fifty-three self mutilating patients with a sample of patients who had not engaged in self mutilation. They found significant differences in terms of age (self mutilators were younger), diagnosis (self mutilators were more likely to have a diagnosis of personality disorder or learning disabilities) and in terms of legal status (self mutilation was found to be less prevalent in insanity acquittees than civil or correctional patients)

Liebling (1997) investigated motivations behind parasuicide with women in an English Special Hospital. Results indicated that for those women who self harmed in the hospital, 50% claimed it was linked to being in the hospital (being locked in, attitudes of staff and patients). The majority of women first self harmed in their teens and claimed that self harm allowed them to cope with sexual, physical and psychological abuse. The reasons given for present self harm were commonly in order to alleviate depression, to regain control, to reduce feelings of anxiety and to communicate their distress. Most (65%) endorsed their intention to kill themselves. Liebling points to environmental deficits, the ward environment, staff attitudes and lack of training.

For further information regarding the background, motivational and psychological factors associated with parasuicide one has to look at the research in other areas – psychiatric, forensic or community.

Background factors

The literature regarding background variables associated with parasuicide tends to indicate aspects such as previous psychiatric history (Ivanoff, 1992a; Fulwiler, 1997), previous forensic history (Stevenson and Skett, 1995), previous sexual abuse (Coid and Wilkins, 1991; Yeo and Yeo, 1993; Adshead 1994), a diagnosis of personality disorder (Coid and Wilkins, 1991; Gupta and Trepacz, 1997), alcohol and drug abuse (Coid and Wilkins, 1991; Ivanoff, 1992a) and age, where parasuicide was found to be associated with younger age groups (Coid and Wilkins, 1991; Gupta and Trepacz, 1997).

Motives

Much of the research into parasuicidal behaviour assumes an intent to die. A number of studies have identified alternative motives for parasuicide. The reasons given by people who self harm are very varied, for example, for symptom relief (Bancroft et al. 1976; Coid and Wilkins, 1991); due to psychiatric disturbance (Power and Spencer, 1987; Michel et al. 1994); in order to influence someone (Bancroft et al. 1976; Power and Spencer, 1987; Coid and Wilkins, 1991; Himber, 1994) and discharge of anger (Himber, 1994). Michel et al. (1994) categorised motivations into two useful broad categories - interpersonal (attempting to influence another) or intrapersonal (attempting to relieve an intolerable state of being).

Psychological factors

A number of studies of parasuicide have indicated that persons who engage in parasuicide are poorer interpersonal problem solvers (i.e. Evans et al., 1992; Sakinofsky et al., 1990; Salkovskis et al., 1990; Schotte and Clum, 1987; Linehan 1987). Much of the research assumes that parasuicidal behaviour is suicidal in intent without any form of analysis of the intention behind the behaviour. At this stage it is difficult to conclude that only suicidal behaviour is linked with interpersonal problem solving skill (IPSS) deficits. It may be that parasuicidal behaviour without suicidal intent, even if it is a result of intrapersonal difficulties is also a function of interpersonal problem solving difficulties in that the individual is unable to communicate their distress to others in a 'conventional' manner.

Given there is little information regarding motivations and background factors in a forensic-psychiatric population, there appears to be a necessity to further our knowledge regarding these areas. In addition, given that the relationship between parasuicide and problem-solving has not been investigated in such a population, there is also a necessity for very basic analysis of problem solving abilities in those patients who engage in parasuicidal behaviour.

Aim of study

The principal aim of the present study is to examine parasuicidal behaviour in a forensic-psychiatric population with a view to identifying pertinent factors associated with the behaviour. This will hopefully aid assessment and intervention strategies.

The factors of interest are background variables, motivational factors and problem solving abilities.

In attempting to investigate the variables associated with parasuicide in a forensic-psychiatric population, several questions will be raised.

1. *Are there differences between those who engage in parasuicidal acts and those who do not in terms of 'background' factors?*

A well recognised approach to examining risk factors for a problem behaviours is to look for differences in demographic and clinical factors between a group exhibiting the 'target' behaviour and those who do not. This kind of information can be useful in identifying pertinent factors that could be utilised in assessment procedures. It is hypothesised in accordance with the literature reviewed that differences will be found between the two groups with the parasuicide group being more likely to:

1. be younger,
2. have been sexually abused,
3. have a drug and alcohol abuse history and
4. have a diagnosis of personality disorder

2. *What is the function of parasuicide for those individuals in the hospital?*

Although the literature on parasuicide in various settings - general population, psychiatric settings and in forensic populations gleans useful information regarding why people commit parasuicide, it is difficult to generalise this to a setting such as a special hospital. This is due to the fact that the hospital has by definition more mechanisms in place to prevent such incidences from occurring. In fact over the last

25 years, although 14 suicides have occurred in the State Hospital, only 1 of these has occurred in the last 10 years. Measures to ensure patient safety appear very successful and it is possible this may mask the fact that although people are suicidal, they may not be 'allowed' the same opportunities to commit suicide. It is possible then that those acts of parasuicide are suicide gestures that have been 'foiled' by the vigilance of the nursing staff. Clearly, if the parasuicide incidents are indicative of suicidal ideation then implications for treatment are different than for those for whom parasuicide has a different function.

3. Are there differences in terms of problem solving abilities between those who do and do not commit parasuicide?

It is important to examine the relationship between parasuicide and problem solving with a view to determining if this group would be 'candidates' for psychological intervention aimed at increasing their problem solving skills. It is hypothesised that those patients who have engaged in parasuicidal behaviour in the hospital will be poorer interpersonal problem solvers than those who have never engaged in such behaviour.

As it is unknown as yet what level of current suicidal ideation and previous suicidal intent is associated with the population to be studied it will be of interest to look at problem solving as related to these factors.

Plan of Investigation

Participants

Participants in the research will form 2 groups -

1. Parasuicidal Group (PG) - All those who have engaged in parasuicide on at least one occasion in the last 2 years. (n = 36)
2. Comparison group (CG)- A sample of patients with no history of parasuicide matched for duration of residence in the hospital (n = 36)

Procedure and Measures

In order to answer the above 3 research questions, the following procedure will be adhered to:

Question 1. All participants' files will be reviewed using a standard protocol (see appendix 3.1). The information collected will include demographics, diagnosis and psychiatric history, alcohol and drug history, offending profile and any history of sexual and physical abuse.

Question 2. All participants will be interviewed using a semi-structured interview (see appendix 3.2) to establish a subjective account of parasuicidal behaviour. The length of this will clearly be determined by the subject's response to an initial question on whether they have ever engaged in parasuicidal behaviour. The reasoning behind asking all those including the comparison group is to establish if there are any 'hidden' episodes of parasuicide which may be less obvious or serious in terms of physical impact and therefore more easily hidden from staff. To

determine the function of such behaviour it is envisaged that the individuals who report a recent history of parasuicide will be interviewed regarding their motivation and intentionality. The interview will be semi-structured and will provide qualitative data. In addition, the Beck Suicidal Ideation Questionnaire (Beck et al. 1979) would be used to determine the current level of suicidal ideation and previous level of suicidal intent with regard to the most recent incident.

Question 3. All participants will be asked to complete the Means-End Problem Solving Test (MEPS); Platt et al. (1975). This assessment provides the respondent with situations for which he or she is presented with a stated need and a desired outcome. The participant is instructed to provide the middle portion of the story in which the protagonist is to achieve the stated goal. A number of dimensions can be scored giving insight into the problem solving skills of the individual.

Settings and Equipment

The data will be collected at the State Hospital, a Scottish facility for the forensic-psychiatric population.

Data analysis

It is envisaged that statistics will be, in the main, descriptive in nature. This is particularly so with the data regarding the reasons for parasuicide. The information from the review of the files will be analysed using non-parametric means (chi-squares) for nominal data and parametric statistics (t-tests) for the interval data. With regards the data from the MEPS, statistical analysis will involve parametric means comparisons tests (t-tests).

Practical Applications

As mentioned previously, it is hoped that the information gathered from the above study will contribute to the identification of factors associated with parasuicide and guide psychological assessment and intervention.

Ethical Approval

This is a prerequisite of research in the State Hospital and on application, has been approved by the State Hospital Ethics Committee.

Time Scales

It is envisaged that the data collection will take place between April and June 1998

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CHAPTER 4: MAJOR RESEARCH PROJECT PAPER**Parasuicidal Behaviour within a Forensic-Psychiatric Population**

Written for submission to *The British Journal of Clinical Psychology*

(see appendix 4.1 for notes for contributors)

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Parasuicidal Behaviour within a Forensic-Psychiatric Population

Abstract

Objectives: The primary aim of the present paper was to identify background, motivational and psychological factors associated with parasuicidal behaviour in a forensic-psychiatric population (a special hospital). It was hypothesised that the parasuicide group (PG) would be differentiated from the comparison group (CG) on a number of background variables. It was also hypothesised that the PG would be poorer interpersonal problem solvers than the CG. Further investigation was directed at examining the motivations of those who engage in such behaviour.

Methods: In order to investigate background factors, the case files of the PG (n = 36) and the CG (n = 36) were reviewed using a standard protocol. In the case of motivations, semi-structured interviews were administered to those in the PG whose consent for interview was obtained (n = 18). To examine problem solving abilities the same number (n = 18) in both groups were administered the Means End Problem Solving Procedure.

Results: The PG group were significantly more likely to have been sexually abused and to have a lengthier psychiatric history than the CG. Motivations behind parasuicide were categorised into intra- and inter-personal reasons and post hoc analysis indicated that suicidal intent was associated with intra-personal reasons. There were no differences in between the groups on the interpersonal problem solving measure.

Conclusions: The results regarding background and motivational factors were discussed in terms of implications for assessment and treatment. The results regarding problem solving were discussed in terms of the methodological limitations of the study and recommendations were made for future research.

Parasuicidal Behaviour within a Forensic-Psychiatric Population

Introduction

Research in the area of parasuicide in forensic-psychiatric populations is limited and in the main appears to be very descriptive in nature. Hillbrand et al. (1994), examining hospitalised male forensic patients in a maximum security hospital, compared background variables between self mutilating patients and controls. They found that self mutilators were younger, were more likely to have a diagnosis of personality disorder or learning disabilities and were more likely to be civil or correctional patients than insanity acquittees.

Liebling (1997) investigated motivations behind parasuicide with women in an English Special Hospital. The majority of women first self harmed in their teens and claimed that the behaviour allowed them to cope with sexual, physical and psychological abuse. The reasons given for present self harm were commonly in order to alleviate depression, to regain control, to reduce feelings of anxiety and to communicate distress. The majority (65%) endorsed their intention to kill themselves.

In order to obtain further information regarding the background, motivational and psychological factors associated with parasuicide it is necessary to examine the research in other settings, for example, in the psychiatric, forensic and community literature.

The literature regarding background variables associated with parasuicide tends to indicate aspects such as previous psychiatric history (Ivanoff, 1992a; Fulwiler, 1997), previous forensic history (Stevenson and Skett, 1995), previous sexual abuse (Coid and Wilkins, 1991; Yeo and Yeo, 1993; Adshead 1994), a diagnosis of personality disorder (Coid and Wilkins, 1991; Gupta and Trepacz, 1997), alcohol and drug abuse (Coid and Wilkins, 1991; Ivanoff, 1992a) and age, where parasuicide was found to be associated with younger age groups (Coid and Wilkins, 1991; Gupta and Trepacz, 1997).

Much of the research examining why people engage in parasuicidal behaviour assumes an intent to die. However, a number of studies have identified alternative motives. The reasons given by people who engage in the behaviour are very varied, for example, for symptom relief (Bancroft et al. 1976; Coid and Wilkins, 1991); due to psychiatric disturbance (Power and Spencer, 1987; Michel et al. 1994); in order to influence someone (Bancroft et al. 1976; Power and Spencer, 1987; Coid and Wilkins, 1991; Himber, 1994) and discharge of anger (Himber, 1994). These various motivations have been categorised into two useful broad categories - interpersonal (attempting to influence another) or intrapersonal (attempting to relieve an intolerable state of being) (Michel et al., 1994).

A number of studies of parasuicide have also indicated that persons who engage in the behaviour are poor interpersonal problem solvers (i.e. Evans et al., 1992; Sakinofsky et al., 1990; Salkovskis et al., 1990; Schotte and Clum, 1987; Linehan, 1987). There is an ongoing debate regarding the relationship between interpersonal problem solving skills (IPSS) and parasuicide. The debate revolves around the

question of whether IPSS deficits are a trait (where someone with poor IPS skills is predisposed under stressful situations to feel hopeless and therefore engage in parasuicidal behaviour in order to cope with the situation) or state phenomena whereby IPSS deficits are viewed as an artefact of the situation, not a precipitating cause. The debate appears to be far from resolved with evidence for both trait (Linehan and colleagues, 1987 and 1996) and state theories (Schotte et al., 1990; Ivanoff, 1992b).

The principal aim of the present study was to examine parasuicidal behaviour in a forensic-psychiatric population with a view to identifying pertinent factors associated with the behaviour. It was hoped that this would aid assessment and intervention strategies. The factors of interest were background variables, motivational factors and problem solving abilities:

It was hypothesised, in accordance with the literature reviewed, that an investigation of background variables would result in differences between those who engage in parasuicide and those who do not with the former group being more likely to be younger, to have been sexually abused, to have a drug and alcohol abuse history and a diagnosis of personality disorder.

No specific hypothesis was forwarded with regard motivation behind parasuicide as it was assumed that there would be numerous inter- and intra-personal reasons given for the behaviour by the individuals concerned.

It was further hypothesised, according to the research literature, that those patients who have engaged in parasuicidal behaviour would have poorer interpersonal problem solving skills than those who have never engaged in such behaviour.

As suicidal intent was to be investigated as part of understanding motivations behind parasuicide, it was unknown as yet what level of suicidal intent would be associated with the population to be studied. As much of the research described previously assumes a link between suicide intent and poor problem solving abilities it was hypothesised that suicidal intent would be associated with poorer problem solving abilities.

As current suicidal ideation was also assumed to be associated with poor problem solving abilities (Schotte and Clum, 1982) it was also hypothesised that those individuals who exhibit current suicidal ideation will be poorer problem solvers than those without suicidal ideation.

Method

Participants

Participants formed two groups. The parasuicidal group (PG) comprised of 36 patients residing in the State Hospital who, according official records, had engaged in parasuicidal behaviour in the previous two years. The mean age was 34 years (range = 21 to 53 years). Of the 36 patients, 7 were female. From this group, 11 were refused consent for interview by their consultants on the grounds that they felt

that the patient was too ill or unstable to be interviewed. In addition, a further 7 individuals declined to be interviewed when approached by the author. Thus, although files were reviewed for all 36 patients, only 18 patients were interviewed.

The primary matching criteria for the comparison group was duration of stay in the State Hospital. Two individuals, matched with each PG participant for duration of stay, were provisionally selected (n=72). However, as it was noted through initial file reviewing procedures that a number of the parasuicidal individuals (n=9; 6 of whom were interviewed) had a diagnoses of learning disabilities, it was deemed important to match these individuals with non-parasuicidal individuals with similar levels of disability. Within the previous six months, a review of level of intellectual disability of learning disabled clients in the State Hospital had been conducted by the clinical psychologist assigned to this client group, thus a data base existed for matching purposes. Although recently measured Intelligence Quotients were not recorded in the file for all the individuals reviewed, each individual was categorised according to their degree of learning disability (borderline, mild, moderate, severe). Suitable comparison individuals were thus selected by definition of their assigned level of disabilities and duration of stay in the hospital.

These comparison group files (n = 81, including the 9 individuals with learning disabilities) were systematically reviewed for written evidence of parasuicide history. Seventeen individuals were excluded due to reports of previous parasuicide. Of those remaining, consent for interview was sought from consultants and approved for 47 cases. From these, 36 cases which most closely matched with the PG counterpart

for duration of stay and level of learning disability were selected for participation in the study. This left a 'reserve' group of 11 individuals.

Eighteen individuals were initially approached for interview, but 3 refused and 2 individuals admitted previous parasuicide and were therefore excluded. Thus, 5 additional individuals who satisfied the above criteria were selected from the 'reserve' group.

The final comparison group therefore comprised 36 individuals, nine of whom were learning disabled. The mean age was 36 years (range = 22 to 51 years). The comparison sample were comprised entirely of male participants, due to the fact that there is a very small number of women in the hospital, all of whom have self harmed at some point in their lives. As the focus of the research was to identify differences between those who engage in parasuicide and those who do not then it was deemed the most viable way of undertaking the research. Of the comparison group, files were reviewed for 36 but only 18 were interviewed (six of whom were learning disabled), as for the parasuicide group.

Measures

1. Case Notes Structured Protocol

All identified individuals' files ($n = 72$) were systematically reviewed using a structured protocol (see appendix 4.2). The information collected included demographics, diagnosis and psychiatric history, alcohol and drug history, offending profile, and any history of sexual abuse and physical abuse. Although, it would have

been possible to interview participants in order to check the information in their files, this was not undertaken because of the lengthy process involved and questionable reliability of participant's recall. However, as medical sub committee reports are compiled on a yearly basis, any information such as diagnosis was relatively recently reviewed by the professionals involved.

2. Beck Scale for Suicidal Ideation (SSI)

The SSI (Beck et al., 1979), a 19 item clinician rated instrument, was used to determine firstly present levels of suicidal ideation and secondly previous level of suicidal intent with regard to the most recent incident. Although the Beck Suicide Intent Scale (1974) is a more comprehensive measure of suicidal intent, it was felt that brevity was of importance in this population and thus, the item in the SSI relating to previous suicide attempts was adapted to query intent behind the last parasuicidal act. Each participant was therefore asked to rate their suicidal intent on a scale of 0 to 3 where 0 indicates no suicidal intent; 1, low intent; 2, moderate intent and 3, high intent. The scale has high inter-rater reliability (0.83) (Beck et al., 1979) and good validity, being able to discriminate hospitalised suicidal individuals from depressed outpatients. (Beck et al. 1979)

3. Semi-Structured Interview

The parasuicide patients, whose consent was granted, and their matched controls were interviewed using a semi-structured interview (see appendix 4.3) to establish a subjective account of parasuicide behaviour. Although standardised interviews such as the European Parasuicide Interview Schedule (EPSIS; Kerkhof et al., 1993 a) are available, the duration of this interview is between one and four hours and thus due

to time constraints not deemed viable in the present study. The interview was constructed by the author and included two introductory questions on 'stress' experienced in the hospital. The rationale for commencing the interview with these questions was in order to build rapport with the participant through discussing sources of stress and their means of combating stress. The remainder of the interview was brief and was aimed at eliciting spontaneous reasons for incidences of parasuicide. The author prior to the interview had recorded the reported incident(s) of parasuicide from the incident register and thus had a means of checking whether the participant was engaging in dialogue about the most recent incident.

4. Means End Problem Solving Procedure (MEPS)

All relevant participants were asked to complete 3 stories (see appendix 4.4) from the Means-End Problem Solving Procedure (MEPS) (Platt et al., 1975). This assessment provides the respondent with situations for which he or she is presented with a stated need and a desired outcome. The participant is instructed to provide the middle portion of the story in which the protagonist is to achieve the stated goal. A number of dimensions can be scored giving insight into the problem solving skills of the individual. In addition to the standard dimensions scored (relevant and irrelevant means), additional categories were measured (Kehrer and Linehan, 1996) in order to determine if there were differences in active, passive and inappropriate strategies employed by the participants. Satisfactory reliability has been demonstrated for the original scoring system and the developers have provided data supporting the validity of the MEPS (Platt et al. 1975). Schotte and Clum in 1982 established inter-rater reliability on the MEPS as 0.9 and test-retest reliability for 5 weeks (0.64). In

addition they found high levels of internal consistency (KR- 20 = 0.8 to 0.82, odd-even = 0.82 to 0.84).

Although there are a total of 10 stories in the procedure, Platt and Spivac (1975) demonstrated through factor analysis that all the stories loaded on a single factor and therefore appeared to be measuring the same dimension. They indicate therefore that it may not be necessary to administer all the stories in order to obtain a valid estimate of means-end cognition. In line with this most researchers in the field have opted to use a subsample of stories ranging from three (Kehrer and Linehan, 1996; Linehan et al, 1987) to five (Schotte and Clum, 1987). As brevity of interview was deemed a priority, the lower number of three was chosen. As other research was being conducted in the State Hospital at the time using the MEPS, the same three stories were chosen in order to allow for consistency across the two research projects.

Procedure

The file reviews, using the standard protocol, were conducted by the author and took up to 40 minutes each to complete. In order to obtain consent for participation, the appropriate consultant psychiatrists were provided with an information sheet (appendix 4.5) and individual consent forms (appendix 4.6) for each patient selected for the study. Once consent was granted, the participants were approached individually by the author and were provided with both written and verbal information regarding the study. Each participant was informed that even if they consented to interview, they could terminate it at any time.

The interviews lasted up to 30 minutes in duration and verbal responses were written verbatim by the interviewer. The procedure followed a standardised format whereby each participant was interviewed using the semi-structured interview (including the SSI) followed by the MEPS. It was anticipated that by administering the MEPS at the end of the session, that its neutrality and lack of personal reference would ensure that the interview would not be terminated on a negative note.

Results

- Background variables

In order to investigate background variables associated with parasuicide, analyses were conducted on information gathered from the 72 file reviews. For those variables that were interval in nature, independent t-tests were performed. As can be seen from table 1, (appendix 4.7) there were no significant differences between the two groups in terms of number of children, age at interview, age at admission, total duration of stay in the State Hospital, (taking into account previous admissions), number of previous admissions to the State Hospital, total previous convictions or age at first conviction.

There was, however, a significant difference between the two groups in terms of age of first psychiatric contact ($t = -3.32$, $d.f. = 58$, $p < .01$), whereby the parasuicide group were younger (mean age 15 years) than the comparison group (mean age 21) at first contact.

Those background variables which were nominal in nature were subjected to chi-square analysis (see table 2 – appendix 4.8). As can be seen from the table, there were no differences between the groups in terms of marital status, qualifications, primary or secondary diagnosis, physical abuse, age of physical abuse, substance abuse or age of sexual abuse.

Significant differences were, however, found between the two groups with regard history of sexual abuse. More of those people in the parasuicide group were recorded as being sexually abused than in the comparison group (chi-square = 10, d.f. = 1, $p < .01$). A significant difference also occurred in terms of which institution the individuals were referred from. The parasuicide group were more likely than the comparison group to have been admitted from psychiatric hospital rather than from prison (chi-square = 8, d.f. = 1, $p = .005$).

These results provide evidence in support of 1 of the 4 specific hypotheses forwarded with respect to background variables. The parasuicide group were more likely to have been sexually abused. However, the parasuicide group were not likely to be younger and were not more likely to be diagnosed with a personality disorder or have abused alcohol or drugs. Additional findings which did not support the hypotheses forwarded was that the parasuicide group tended to be younger when they first came into contact with the psychiatric services and were more likely to have been referred to the State Hospital from their local psychiatric hospital.

- Motivational factors

All those interviewed were assessed using the SSI (Beck, 1979) in order to determine present levels of suicidal ideation and previous levels of suicidal intent. None of those interviewed admitted to any current suicidal ideation. However, seven admitted to suicidal intent at the time of their parasuicidal act.

The parasuicidal group's (n = 18) responses to interview (outlined in table 1 below) were categorised into inter- or intra-personal responses (c.f. Michel et al., 1994). Interpersonal motives were defined as those which either indicated a desire to communicate distress (the cause of which could be internal or external) to others or because of an inability to cope with a challenging interpersonal situation. Intrapersonal motives were defined as those which indicated internal distress (depression, anxiety, psychotic symptomatology) without any reference to interpersonal motives. For example while six participants indicated that their parasuicide act was a result of depressive symptoms (internal distress), three indicated that the act was an attempt to let others (staff) know that they were not coping but the remaining three individuals indicated that the act was in itself undertaken in order to escape or gain relief from their symptoms. Thus, on the basis of the definition above, the former three were deemed to have interpersonal motives and the latter, intrapersonal.

Insert table 1 here

The table also includes whether the interviewee claimed that the parasuicidal act was suicidal in intent. It is interesting to note that more of the individuals in the 'intrapersonal' category appeared to indicate suicidal intent as a motive for their act. Analysis in the form of the Fisher's exact test was performed in order to determine the statistical significance of the observed differences. The analysis indicated that more of those who gave intrapersonal reasons for their parasuicide act had claimed that they were suicidal at the time ($p = .013$)

All but two of those interviewed claimed they had engaged in parasuicidal behaviour prior to their admission to the State Hospital and the majority of them had been harming themselves since adolescence.

- Interpersonal Problem Solving Skills

A number of scores were calculated from the MEPS and statistical analyses in the form of independent t-tests were completed, (as seen in table 3 – appendix 4.9). There were no statistically significant differences between the two groups on any of the scores, whether they were the original scoring criteria (c.f. Platt and Spivac, 1974) or the revised procedures (c.f. Kehrer and Linehan, 1996). Thus, there was no support for the hypothesis that those individuals in the hospital who had engaged in parasuicidal behaviour in the previous two years are less efficient in terms of interpersonal problem solving, as measured by the MEPS, than a group of patients who had never engaged in such behaviour.

Due to the fact that a substantial proportion of the sample (twelve individuals - six in each group) were learning disabled, the question arose as to whether their inclusion would influence the results. Although there are no published studies on the relationship between intelligence and the MEPS, Platt and Spivac (1975) include data from their own studies in the MEPS handbook. A number of correlations between MEPS scores and scores on the Scholastic Aptitude Test, California Test of Mental Maturity, Quick test of Intelligence, Revised Beta and the Stanford Achievement Test were provided. The correlations were low to moderate ranging from $r = 0.00$ to $r = -0.43$ and there was no information regarding statistical significance. Clearly, there is a case for further examination of the relationship between intelligence and MEPS and in the absence of such data it was deemed pertinent to ensure that the presence of learning disabled individuals in the sample did not influence any results. To assess this, two post hoc analyses were performed. Firstly, learning disabled participants as a group were compared with the remainder of the participants on all the MEPS scores, to investigate whether there were differences in their abilities to problem solve. As a number of assumptions for parametric tests were broken (different sample sizes, small sample sizes and unequal variances in the two groups), a non parametric method of analysis was chosen (Mann-Whitney U). There were significant differences whereby the learning disabled group gave less relevant means ($Z = -2.816$, $p = .005$) and less active means ($Z = -2.919$, $p < .005$) than the remainder of those interviewed. (see table 4 – appendix 4.10).

A second analysis was therefore performed to assess if there were significant differences between the parasuicide and comparison group if learning disabled

individuals were excluded from the analysis. Parametric statistics were used (t tests – see table 2 below) but, as with the original sample, no significant differences were found between the groups on any of the MEPS scores.

Insert table 2 here

An additional research question was about the relationship between suicidal ideation and intent and performance on the MEPS. However, since none of the patients interviewed admitted any present suicidal ideation, this relationship could not be investigated.

With regards to suicidal intent at the time of the parasuicidal incident, there were 7 individuals who indicated a degree of suicidal intent, and 11 who claimed that their parasuicidal incident was for reasons other than attempted suicide. However, statistical analysis was not deemed appropriate due to the fact that there were 4 learning disabled individuals in the ‘suicidal intent group’ and 2 in the ‘non intent group’. As it appears that learning disabilities is associated with poorer problem solving in this sample, it would be necessary to exclude those individuals from analysis of the relationship between suicide intent and IPSS. However, to do so would result in a sample too small for statistical analysis.

Discussion

The research presented here has attempted to investigate background factors, motivations and problem-solving abilities with respect to parasuicidal behaviour in a forensic-psychiatric population. Each will be discussed separately.

It is important at this point to consider the difficulties encountered in recruiting an appropriate sample. The 'ideal' sample would have been matched for gender and would have omitted individuals with learning disabilities. Unfortunately, due to a number of practical constraints, this was not possible within the context of the present study. It is therefore important to emphasize that any results discussed are only generalisable to the complex population studied, that is, individuals who engage in parasuicide in a Special Hospital.

- Background factors

The results above indicate that with regards to background factors in this population, parasuicidal individuals can be discriminated from non-parasuicidal individuals in terms of a number of variables. There was support for the hypothesis that those who engaged in parasuicidal behaviour were more likely to have been sexually abused. These results are consistent with previous research (i.e. Liebling, 1997; Coid and Wilkins, 1991) but should be interpreted with some caution as the study relied solely upon case records rather than formal clinical assessment and no other form of check was made to establish the reliability of the case records.

Another finding was that individuals who engage in parasuicide acts were more likely to have been referred from hospital than from the prison services. In addition, the parasuicidal individuals were more likely to have come into contact with psychiatric services at a younger age. Taken together, these results indicate that overall, those patients who engage in parasuicidal behaviour have a lengthier history of psychiatric difficulties. This is unsurprising given that most of those interviewed claimed they had been engaging in such behaviour since their adolescence. There were no differences between the groups in terms of number of previous convictions, although investigation into the nature of those convictions would have to be conducted in order to establish if there are any qualitative differences between participants regarding type of offences (i.e. property offences versus violent offences) and in terms of nature of sentences passed.

No differences were found in terms of diagnosis. Unlike the English legal system, under Scottish law an individual cannot be detained in the State Hospital on the grounds that they have a personality disorder as a primary diagnosis. Individuals can only be detained if they have a psychiatric illness or a learning disability. It was interesting to note that more of the parasuicide group had a secondary diagnosis of personality disorder than the comparison groups although this was not a statistically significant finding. Once again, as the study relied upon case records for diagnosis, there is a possibility that personality disorder diagnoses have been omitted. Further research using standardised clinical interviews would be recommended to examine this further.

- Motivations

The range of reasons given for parasuicidal behaviour appears consistent with prior research. Using the broad categories of inter- and intra- personal motivation (Michel 1994), the results indicate that 11 individuals gave primarily interpersonal reasons for their parasuicidal act in that they were either unable to cope with a difficult interpersonal situation or they felt unable to communicate their distress to others without resorting to parasuicide. Seven individuals claimed they were seeking relief from, or responding to, internal distress (anxiety or depression in the case of the former and psychotic symptoms in the latter). Interestingly, only one of those individuals who indicated they were seeking relief from symptoms claimed that they had been successful in doing so. These results must, however, be interpreted with caution as the study relied upon a non-standardised interview schedule with emphasis upon spontaneous replies. A potentially more thorough way of eliciting motivations for parasuicide would have been through the use of a shortened standardised interview with more closed questions requiring participants to rate the importance of various motivations behind parasuicide.

Furthermore, although the participants responses to the questions regarding motivations were categorised according to Michel et al's. (1994) classification, the reliability of the process would have been increased through the use of a second rater.

An additional methodological limitation was the inclusion of introductory questions regarding the experience of stress in the hospital. It is possible that by starting with

such questions that bias was introduced. Once again, the use of a standardised interview would be recommended.

These results nevertheless appear to have clear implications for assessment and treatment, depending on the reasons given for parasuicide. In the case of those struggling with interpersonal difficulties, one would expect that interpersonal problem solving, assertiveness training and social skills training would be appropriate. In the case of those struggling with symptom-related problems, one would expect that psychological intervention aimed at developing coping strategies would be useful. It is clear that within the context of this population, it is very difficult to make assumptions about individuals, and that careful assessment of each individual is required with the ultimate goal of attempting to replace parasuicide with more effective ways of dealing with their distress.

It was also noted through post hoc analysis that suicide intent at the time of the act was associated with intrapersonal reasons rather than interpersonal reasons. This merits further investigation with a larger sample size and with standardised interviews in order that more definitive conclusions can be made.

- **Interpersonal problem solving**

The results indicate no differences between the parasuicide group and the comparison group in terms of interpersonal problem solving skills (IPSS), even when revised scoring procedures were included and when learning disabled individuals were excluded from the analysis.

An important limitation to any interpretation of these results is that only 18 of the original 36 parasuicide patients were interviewed, and only 12 were included in the final analysis. It is possible that the sample interviewed were not representative of the population studied, in that some of them were 'unwell' at the time of the interviews. Although none of those interviewed were exhibiting any signs of suicidal ideation, it is possible that a number of those not interviewed were, thus differentiating them from the group assessed.

Another possible limitation was the use of only 3 stories. It is possible that the use of more stories would have allowed for greater variability in scores thus differences between the two groups would have been more apparent.

A final methodological limitation is with reference to the possible relationship between IQ and the MEPS. Given that there is little information regarding this relationship it would have been pertinent to ensure that IQ was controlled for across the sub-groups of non-learning disabled participants. To ensure this, future research would benefit from the inclusion of a measure of intellectual ability.

Despite the limitations, these results appear to contradict those found by researchers advocating a trait theory of interpersonal problem solving. The trait model assumes that an individual with poor interpersonal problem solving skills is predisposed to parasuicide under stressful situations (Linehan 1987). Under this theory, IPSS deficits would remain stable even after the event, unless the individual had undergone psychological intervention aimed at improving IPSS. If the trait theory is

correct then one would expect differences between the two groups. However, as the MEPS was not developed or standardised for this population, it is possible that whilst poor IPS skills are associated with parasuicide in the forensic-psychiatric population, the MEPS is not sensitive enough to discriminate between two groups of poor problem solvers. The mean scores are lower (even without the learning disabilities population) when compared with those means available in the literature (Schotte et al., 1990; Schotte et al., 1982). This appears to lend support to the possibility that there is a 'floor effect' whereby because the population as a whole are poor problem solvers thus there is little variation in the sample and differences are not detectable between the two groups.

With regards the state theory (Schotte et al., 1990), IPSS deficits are seen as an artefact of the stressful situation. Accordingly, one would expect interpersonal problem solving deficits to occur only at times of stress and would remit in times of less stress. However, the results in this study cannot directly provide support for this theory. In order to do so it would have been necessary to measure 'stress' and its relation to IPSS. However, the results do not wholly contradict the state theory in that it is clearly feasible that if the parasuicide individuals were assessed at the time of their self harm, the results may well have indicated poorer IPSS at that time.

The fact that no individuals interviewed admitted current suicidal ideation precluded any exploration of the relationship between suicidal ideation, parasuicidal behaviour and IPSS. Seven of the 18 parasuicide individuals interviewed claimed that they had suicidal intent, and therefore suicidal ideation, at the time of their most recent incident. It would have been interesting to have examined their IPS skills at that

time. Further research using a forensic-psychiatric population would therefore benefit from identifying individuals with suicidal ideation and assessing their IPS skills.

It is clear that a small and retrospective study of this nature is not sufficient to fully explore the relationship between IPSS and parasuicide. Further research ideally would involve a larger sample size and be prospective in that IPS skills are measured before (at admission), immediately after and at a follow-up point when any suicidal ideation has ceased.

Conclusions

The findings from the study of parasuicide in a psychiatric-forensic population are to a certain extent consistent with previous research in similar areas. The findings indicate that those parasuicidal individuals in this population are more likely to have been sexually abused and have a lengthier psychiatric history than individuals who do not engage in parasuicide. These findings are important and useful particularly in terms of assessment and treatment of individuals at risk of parasuicidal behaviour.

The reasons given for parasuicide also appear to be consistent with previous research in that motivations are varied but can be defined either as intra or interpersonal. It has been proposed that different intervention strategies may be effective depending on the motivations forwarded by an individual and this highlights the necessity for thorough psychological assessment.

There were no differences between the two groups in terms of interpersonal problem solving and although this appears to be contrary to the trait theory of IPSS and parasuicide, the results do not firmly contradict the state theory of IPSS. There were a number of methodological limitations to this study and further prospective research is recommended, particularly in light of the results of various studies (Salkovskis, 1990; McLeavey, 1994; Linehan, 1993) which indicate that successful reduction of parasuicidal behaviour is facilitated by IPSS training as a component of treatment.

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Table 1

| Table 1 - Reasons given for parasuicide act | | | | | |
|---|---|------------|---------------|--|------------|
| Interpersonal | | | Intrapersonal | | |
| No. | Reason | Intent | No. | Reason | Intent |
| 3 | Attempt to communicate distress regarding interpersonal situation to others | Non suic. | 4 | Command hallucinations | Suic. |
| 7 | Attempt to communicate distress regarding interpersonal situation to others | Suic. | 5 | Relief from anxiety | Non. Suic. |
| 10 | Attempt to communicate distress (depression) to others | Non. Suic. | 6 | Command hallucinations | Suic. |
| 17 | Attempt to communicate distress (depression) to others | Non. Suic. | 11 | Relief from depression | Suic. |
| 23 | Attempt to communicate distress (depression) to others | Non. Suic. | 14 | Relief from depression | Non. Suic. |
| 28 | Frustration at stressful interpersonal situation | Non. Suic. | 15 | Relief from depression | Suic. |
| 29 | Frustration at stressful interpersonal situation | Non. Suic. | 25 | Relief from paranoid delusions | Suic. |
| 30 | Frustration at stressful interpersonal situation | Non. Suic. | 36 | Relief from intolerable (unspecified) symptoms | Suic. |
| 32 | Frustration at stressful interpersonal situation | Non. Suic. | | | |
| 35 | Frustration at stressful interpersonal situation | Non. Suic. | | | |

Table2

| Independent t tests comparing MEPS scores between the parasuicide group and the comparison group excluding individuals with learning disabilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|----------|-------------|----------------------|----------|-----------|-------------|--|-----|----|------|------|-------|----|------|----|----|------|------|--|-----|----|------|------|-------|----|------|----|----|------|------|--|-----|----|------|------|-------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|----|----|------|------|--|-----|----|------|------|------|----|------|
| Variable | Self harm | N | Mean | Std Deviation | T | Df | Sig. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relevant means total | Yes | 12 | 2.50 | 1.08 | -0.19 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 2.58 | 0.99 | | | | Irrelevant means total | Yes | 12 | 0.50 | 0.67 | 0.00 | 22 | n.s. | No | 12 | 0.50 | 0.67 | No means total | Yes | 12 | 0.17 | 0.39 | -0.92 | 22 | n.s. | No | 12 | 0.33 | 0.49 | Active means total | Yes | 12 | 2.41 | 1.08 | -0.19 | 22 | n.s. | No | 12 | 2.50 | 1.00 | Passive means total | Yes | 12 | 0.08 | 0.28 | 0.00 | 22 | n.s. | No | 12 | 0.08 | 0.28 | Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | No | 12 | 0.25 | 0.45 | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. |
| Irrelevant means total | Yes | 12 | 0.50 | 0.67 | 0.00 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.50 | 0.67 | | | | No means total | Yes | 12 | 0.17 | 0.39 | -0.92 | 22 | n.s. | No | 12 | 0.33 | 0.49 | Active means total | Yes | 12 | 2.41 | 1.08 | -0.19 | 22 | n.s. | No | 12 | 2.50 | 1.00 | Passive means total | Yes | 12 | 0.08 | 0.28 | 0.00 | 22 | n.s. | No | 12 | 0.08 | 0.28 | Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | No | 12 | 0.25 | 0.45 | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | |
| No means total | Yes | 12 | 0.17 | 0.39 | -0.92 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.33 | 0.49 | | | | Active means total | Yes | 12 | 2.41 | 1.08 | -0.19 | 22 | n.s. | No | 12 | 2.50 | 1.00 | Passive means total | Yes | 12 | 0.08 | 0.28 | 0.00 | 22 | n.s. | No | 12 | 0.08 | 0.28 | Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | No | 12 | 0.25 | 0.45 | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | |
| Active means total | Yes | 12 | 2.41 | 1.08 | -0.19 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 2.50 | 1.00 | | | | Passive means total | Yes | 12 | 0.08 | 0.28 | 0.00 | 22 | n.s. | No | 12 | 0.08 | 0.28 | Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | No | 12 | 0.25 | 0.45 | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Passive means total | Yes | 12 | 0.08 | 0.28 | 0.00 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.08 | 0.28 | | | | Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | No | 12 | 0.25 | 0.45 | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inappropriate means total | Yes | 12 | 0.41 | 0.51 | 0.84 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.25 | 0.45 | | | | Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | No | 12 | 0.75 | 0.21 | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of relevant means | Yes | 12 | 0.77 | 0.29 | 0.26 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.75 | 0.21 | | | | Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | No | 12 | 0.72 | 0.22 | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of active means | Yes | 12 | 0.75 | 0.28 | 0.19 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.72 | 0.22 | | | | Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | No | 12 | 0.02 | 0.07 | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of passive means | Yes | 12 | 0.03 | 0.09 | 0.20 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.02 | 0.07 | | | | Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of inappropriate means | Yes | 12 | 0.13 | 0.16 | 0.75 | 22 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 12 | 0.08 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CHAPTER 5: SINGLE CASE CLINICAL RESEARCH STUDIES: ABSTRACTS

SINGLE CASE CLINICAL RESEARCH STUDY - I

Psychological Intervention with Psychopathology Associated with Angina

Pectoris

Abstract

The following paper presents the case of a woman suffering from symptoms of anxiety and depression related to health problems (in particular angina pectoris) she had been experiencing since suffering a minor myocardial infarction (MI) three years previously. It was proposed that a combination of factors led her catastrophically attribute each episode of angina as being the onset of a myocardial infarction and that this resulted in marked psychopathology. It was hypothesised that suitable cognitive behavioural intervention would result in a reduction in symptoms of anxiety and depression, a decrease in the impact of cardiac symptoms on her day to day living and an improvement in her quality of life. The outcome of intervention indicated that there were marked improvements in terms of quality of life (including a reduction in the number of reported anxiety inducing angina attacks) but not so as measured by objective assessments. These results were discussed in light of the very tragic deaths of close family members. The case exemplifies the role of causal attributions regarding the aetiology of cardiac disease and the effects of such attributions in terms of perceived controllability over the prognosis of the disease.

SINGLE CASE CLINICAL RESEARCH STUDY - II

Cognitive Behavioural Therapy with an Adolescent Sufferer of Alopecia Areata

Abstract

Alopecia Areata (AA) is a dermatological complaint which involves varying degrees of hair loss to the scalp and body. Psychological distress, namely depression and anxiety is sometimes associated with the disease. The following paper describes the case of an adolescent girl with AA who presented with low self esteem and depressive symptoms related in part to her hair loss. It was proposed that she held dysfunctional assumptions regarding her peer's acceptance of her being contingent on her having a 'full head of hair'. It was hypothesised that cognitive behavioural therapy aimed at challenging her assumptions would result in a decrease in objectively measured depression, an increase in her objectively measured self esteem and an increase in her subjective record of mood state. Intervention resulted in positive changes in both objective and subjective measures, although the former were not marked. The results are discussed in the context of her relationships with her peers and her family. It is proposed that a cognitive behavioural model is useful when attempting to understand the difficulties encountered with hair loss and further research is recommended.

SINGLE CASE CLINICAL RESEARCH STUDY - III

Treatment Compliance and Cognitive Behavioural Intervention with Post Traumatic Stress Disorder – A Case Study

Abstract

The following paper outlines the case of an individual suffering from Post Traumatic Stress Disorder (PTSD) following accidental injury. Due to the individual's reluctance to engage in imaginal exposure, intervention followed a cognitive behavioural (CBT) model without this recommended treatment component. It was proposed that by initially concentrating upon those aspects of treatment most acceptable to him (behavioural work aimed at overcoming avoidance of external reminders of the accident and cognitive work aimed at challenging dysfunctional assumptions) then the individual would be more amenable to engage in more challenging aspects of the treatment process. This, however, was not the case and although there were some gains in terms of quality of life, objective measures (specifically the Revised Impact of Events Scale- RIES) showed only limited improvement. It was proposed that the omission of an imaginal exposure component *may* be the main reason why the intervention failed to result in more significant gains. However, the lack of comprehensive measurements of PTSD symptomatology which includes measures of cognitive *and* behavioural avoidance is also discussed as a possible reason for the lack of objective gains.

APPENDICES
(CHAPTERS 1 TO 4)

| | |
|---|-----------------|
| APPENDIX 1: SMALL SCALE SERVICE EVALUATION PROJECT | 91 - 92 |
| APPENDIX 2: MAJOR RESEARCH PROJECT LITERATURE REVIEW | 93 - 95 |
| APPENDIX 3: MAJOR RESEARCH PROJECT PROPOSAL | 96 - 101 |
| APPENDIX 4: MAJOR RESEARCH PROJECT PAPER | 102-114 |

Appendix 1.1 – notes for contributors (Clinical Psychology Forum)

CLINICAL PSYCHOLOGY FORUM

Clinical Psychology Forum is produced by the Division of Clinical Psychology of The British Psychological Society. It is edited by Steve Baldwin, Jonathan Calder, Lesley Cohen, Simon Gelsthorpe, Craig Newnes, Mark Rapley and Arlene Vetere, and circulated to all members of the Division monthly. It is designed to serve as a discussion forum for any issues of relevance to clinical psychologists. The editorial collective welcomes brief articles, reports of events, correspondence, book reviews and announcements.

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Send two copies of your contribution, typed and double spaced. Contributors are asked to keep tables to a minimum; use text where possible.

News of Branches and Special Groups is especially welcome.

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Appendix 1.2

SEMI STRUCTURED INTERVIEW WITH STAFF IN THE COMMUNITY ADDICTIONS TEAM

1/ At present the psychologist's clinical input is largely 1-to-1 direct contact with patients. However, there are other modes of service available from psychology. Can you rate these on a scale of 1 to 5 to reflect your opinion on whether you believe them to be an effective use of the psychologist's time.

| | | | | | |
|----------------------------------|---|---|---|---|---|
| A/ 1-to-1 direct patient contact | 1 | 2 | 3 | 4 | 5 |
| B/ group work | 1 | 2 | 3 | 4 | 5 |
| C/ consultancy to staff team | 1 | 2 | 3 | 4 | 5 |
| D/ teaching to staff team | 1 | 2 | 3 | 4 | 5 |

1 = very ineffective use of psychologist's time

2 = very effective use of psychologist's time

2/ Now can you rank order the above to reflect your opinion of how the psychologist would best use her time within the CAT

1=

2=

3=

4=

Initially, referrals were not based on any formal criteria. However, 4 months into the service the psychologist provided this.

Can you identify any criterion which, in your opinion, are missing?

Yes No

Please specify

Appendix 1.2 continued

- Can you identify any criterion listed you believe to be inappropriate and/or more suitably treated by other professionals on the team?

Yes No

Please specify

4/ Are you satisfied with the length of time before a patient is seen by the psychologist?

Yes No

Please specify

5/ Are you satisfied by the service provided by the psychologist?

- 1 very satisfied
- 2 satisfied
- 3 somewhat satisfied
- 4 unsatisfied
- 5 very unsatisfied

6/ can you recommend any changes/improvements to the service?

Yes No

Please specify

Appendix 1.3

Guidelines for Referral to the Psychological Service within the CAT

Since the service is specifically to the CAT

1. The psychological problem should be directly relatable to the addiction problem either as
 - a) a precipitant of the addiction problem
 - b) a consequence of it or
 - c) other cases in which psychological intervention may avert relapses or maintain a positive situation
2. Preferably referrals should not be cases where previous lengthy psychological treatment has been given to no avail
3. Suggestions for appropriate referral problem categories –
 - Reactive depression with obvious precipitants/life events
 - Abnormal grief reactions
 - Psychological problems contingent on sexual abuse
 - Post traumatic stress disorder
 - Anger management problems
 - Psychological input in management of drug/alcohol induced psychosis
 - Severe anxiety disorders which have a good prognosis of benefiting from psychological intervention
 - Neuropsychological assessments which are appropriate and have obvious utility
4. Other problems not subsumed under the above categories can obviously be discussed with the psychologist

Appendix 2.1 – notes for contributors (Journal of Clinical Psychology)

NOTES FOR CONTRIBUTORS

1. The *British Journal of Clinical Psychology* publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour, e.g. neuropsychology, age associated CNS changes and pharmacological (in the later case an explicit psychological analysis is also required), through studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis. The general focus of studies is on abnormal behaviour such as that described and classified by current diagnostic systems (ICD-10, DSM-IV) but it is not bound by the exclusive use of such diagnostic systems. The Journal is catholic with respect to the range of theories and methods used to answer substantive scientific problems. Studies of samples with no current psychological disorder will only be considered if they have a direct bearing on clinical theory or practice.
2. The following types of paper are invited:
 - (a) Papers reporting original empirical investigations.
 - (b) Theoretical papers, provided that these are sufficiently related to empirical data.
 - (c) Review articles which need not be exhaustive, but which should give an interpretation of the state of research in a given field and, where appropriate, identify its clinical implications.
 - (d) Brief Reports and Comments (see paragraph 6).Case studies are normally published only as Brief Reports. Papers are evaluated in terms of their theoretical importance, contributions to knowledge, relevance to the concerns of practising clinical psychologists, and readability. Papers generally appear in order of acceptance, except for the priority given to Brief Reports and Comments.
3. The circulation of the Journal is worldwide, and papers are reviewed by colleagues in many countries. There is no restriction to British authors, and papers are invited from authors throughout the world.
4. The editors will reject papers which evidence discriminatory, unethical or unprofessional practices.
5. Papers should be prepared in accordance with The British Psychological Society's *Style Guide*. Contributions should be kept as concise as clarity permits, and illustrations kept as few as possible. Papers should not normally exceed 5000 words. A structured abstract of up to 250 words should be provided (see Volume 35(2), pp. 323 (1996), for details). The title should indicate exactly but as briefly as possible the subject of the article, bearing in mind its use in abstracting and indexing systems.
 - (a) Contributions should be typed in double spacing with wide margins and only on one side of each sheet. Sheets should be numbered. The top copy and at least three good duplicates should be submitted and a copy should be retained by the author.
 - (b) This journal operates a policy of blind peer review. Papers will normally be scrutinized and commented on by at least two independent expert referees as well as by the editor or by an associate editor. The referees will not be made aware of the identity of the author. All information about authorship including personal acknowledgements and institutional affiliations should be confined to a removable front page and the text should be free of such clues as identifiable self-citations ('In our earlier work...'). The paper's title should be repeated on the first page of the text.
 - (c) Tables should be typed in double spacing on separate sheets. Each should have a self-explanatory title and should be comprehensible without reference to the text. They should be referred to in the text by arabic numerals. Data given should be checked for accuracy and must agree with mentions in the text.
 - (d) Figures, i.e. diagrams, graphs or other illustrations, should be on separate sheets numbered sequentially 'Fig. 1', etc., and each identified on the back with the title of the paper. They should be carefully drawn, larger than their intended size, suitable for photographic reproduction and clear when reduced

in size. Special care is needed with symbols: correction at proof stage may not be possible. Lettering must not be put on the original drawing but upon a copy to guide the printer. Captions should be listed on a separate sheet.

- (e) The Journal proposes to adopt *structured abstracts*. Guidelines on the preparation of structured abstracts are available from the Journals Office.
- (f) Bibliographical references in the text should quote the author's name and the date of publication thus; Hunt (1993). They should be listed alphabetically by author at the end of the article according to the following format:

Moore, R. G. & Blackburn, I.-M. (1993). Sociotropy, autonomy and personal memories in depression. *British Journal of Clinical Psychology*, 32, 460-462.
Stepoe, A. & Wardle, J. Cognitive predictors of health behaviour in contrasting regions of Europe. In C. R. Brewin, A. Septoe & J. Wardle (Eds), *European Perspectives in Clinical and Health Psychology*, pp. 101-118. Leicester: The British Psychological Society.

Particular care should be taken to ensure that references are accurate and complete. All journal titles should be given in full.

- (g) SI units must be used for all measurements, rounded off to practical values if appropriate, with the Imperial equivalent in parentheses (see *BPS Style Guide*).
 - (h) Authors are requested to avoid the use of sexist language.
 - (i) Supplementary data too extensive for publication may be deposited with the British Library Document Supply Centre. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The materials should be submitted to the Editor together with the article, for simultaneous refereeing.
6. Brief Reports and Comments are limited to two printed pages. These are subject to an accelerated review process to afford rapid publication of research studies, and theoretical, critical or review comments whose essential contribution can be made within a small space. They also include research studies whose importance or breadth of interest is insufficient to warrant publication as full articles, and case reports making a distinctive contribution to theory or method. Authors are encouraged to append an extended report to assist in the evaluation of the submission and to be made available to interested readers on request to the author. To ensure that the two-page limit is not exceeded, set typewriter margins to 66 characters maximum per line and limit the text, including references and a 100-word abstract, to 150 lines. Figures and tables should be avoided. Title, author and name and address for reprints and date of receipt are not included in the allowance. However deduct three lines from the text each and every time any of the following occur:
- (a) title longer than 70 characters,
 - (b) author names longer than 70 characters,
 - (c) each address after the first address,
 - (d) each text heading (these should normally be avoided).
- A character is a letter of space. A punctuation mark counts as two characters (character plus space, and a space must be allowed on each side of a mathematical operator).
7. Proofs are sent to authors for correction of print, but not for introduction of new or different material. They should be returned to the Journals Manager as soon as possible. Fifty complimentary copies of each paper are supplied to the senior author on request; further copies may be ordered on a form supplied with the proofs.
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Appendix 3.1 - Protocol for File Reviews

| Details | Info | Code |
|--|--|------|
| Participant No. | | |
| DOB | | |
| Marital status | 1= married, 2=single, 3=divorced, 4=separated, 5=cohabiting | |
| No of children | | |
| Qualifications | 0=none, 1=O grades, 2=H grades, 3=Degree, 4=Higher Degree | |
| Recent primary diagnosis | 1= schizophrenia, 2=other schizophrenia, 3=psychosis, 4=affective disorder, 5=personality disorder, 6=substance abuse, 7=organic impairment, 8=learning disability | |
| Recent secondary diagnosis | 1= schizophrenia, 2=other schizophrenia, 3=psychosis, 4=affective disorder, 5=personality disorder, 6=substance abuse, 7=organic impairment, 8=learning disability | |
| Age at interview | | |
| Date of Admission to SH | | |
| Age at admission | | |
| Length of present stay | | |
| Where admitted from | 1=hospital, 2=YOP, 3=prison(convicted), 4=prison(remand) | |
| No. of previous admissions | | |
| Duration of past stay | | |
| Total months in SH | | |
| 1 st contact with psych. Services | | |
| Total convictions. | | |
| Age of first conviction | | |
| Index offence | | |
| Alcohol/drugs history | 1= alcohol, 2=drugs, 3=drugs and alcohol, 4=none | |
| Self harm in the SH | 1=yes, 2=no | |
| Self harm prior to SH | 1=yes, 2=no | |
| Age of onset of self harm | 1=childhood. 2=adolescence, 3=adulthood | |
| History of sexual abuse | 1=yes, 2=no | |
| Age of onset | 1=childhood. 2=adolescence, 3=adulthood | |
| History of physical abuse | 1=yes, 2=no | |
| Age of onset | 1=childhood. 2=adolescence, 3=adulthood | |

Appendix 3.2 continued**History of Self Harm**

3. Have you ever thought about or actually deliberately hurt yourself in any way?

- How many times (approximately)-
- in the last 2 years (in hospital and out)?

- ever?

- When did you begin to harm yourself?

- When was the last time you harmed yourself?

Description of Most Recent Incident

4. Please tell me what you did when you last harmed yourself (method and place and circumstances)

Appendix 4.1 – notes for contributors (Journal of Clinical Psychology)

NOTES FOR CONTRIBUTORS

1. The *British Journal of Clinical Psychology* publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour, e.g. neuropsychology, age associated CNS changes and pharmacological (in the later case an explicit psychological analysis is also required), through studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis. The general focus of studies is on abnormal behaviour such as that described and classified by current diagnostic systems (ICD-10, DSM-IV) but it is not bound by the exclusive use of such diagnostic systems. The Journal is catholic with respect to the range of theories and methods used to answer substantive scientific problems. Studies of samples with no current psychological disorder will only be considered if they have a direct bearing on clinical theory or practice.
2. The following types of paper are invited:
 - (a) Papers reporting original empirical investigations.
 - (b) Theoretical papers, provided that these are sufficiently related to empirical data.
 - (c) Review articles which need not be exhaustive, but which should give an interpretation of the state of research in a given field and, where appropriate, identify its clinical implications.
 - (d) Brief Reports and Comments (see paragraph 6). Case studies are normally published only as Brief Reports. Papers are evaluated in terms of their theoretical importance, contributions to knowledge, relevance to the concerns of practising clinical psychologists, and readability. Papers generally appear in order of acceptance; except for the priority given to Brief Reports and Comments.
3. The circulation of the Journal is worldwide, and papers are reviewed by colleagues in many countries. There is no restriction to British authors, and papers are invited from authors throughout the world.
4. The editors will reject papers which evidence discriminatory, unethical or unprofessional practices.
5. Papers should be prepared in accordance with The British Psychological Society's *Style Guide*. Contributions should be kept as concise as clarity permits, and illustrations kept as few as possible. Papers should not normally exceed 5000 words. A structured abstract of up to 250 words should be provided (see Volume 35(2), pp. 323 (1996), for details). The title should indicate exactly but as briefly as possible the subject of the article, bearing in mind its use in abstracting and indexing systems.
 - (a) Contributions should be typed in double spacing with wide margins and only on one side of each sheet. Sheets should be numbered. The top copy and at least three good duplicates should be submitted and a copy should be retained by the author.
 - (b) This journal operates a policy of blind peer review. Papers will normally be scrutinized and commented on by at least two independent expert referees as well as by the editor or by an associate editor. The referees will not be made aware of the identity of the author. All information about authorship including personal acknowledgements and institutional affiliations should be confined to a removable front page and the text should be free of such clues as identifiable self-citations ('In our earlier work...'). The paper's title should be repeated on the first page of the text.
 - (c) Tables should be typed in double spacing on separate sheets. Each should have a self-explanatory title and should be comprehensible without reference to the text. They should be referred to in the text by arabic numerals. Data given should be checked for accuracy and must agree with mentions in the text.
 - (d) Figures, i.e. diagrams, graphs or other illustrations, should be on separate sheets numbered sequentially 'Fig. 1', etc., and each identified on the back with the title of the paper. They should be carefully drawn, larger than their intended size, suitable for photographic reproduction and clear when reduced

in size. Special care is needed with symbols: correction at proof stage may not be possible. Lettering must not be put on the original drawing but upon a copy to guide the printer. Captions should be listed on a separate sheet.

- (e) The Journal proposes to adopt *structured abstracts*. Guidelines on the preparation of structured abstracts are available from the Journals Office.
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Moore, R. G. & Blackburn, I.-M. (1993). Sociotropy, autonomy and personal memories in depression. *British Journal of Clinical Psychology*, 32, 460-462.
Stephoe, A. & Wardle, J. Cognitive predictors of health behaviour in contrasting regions of Europe. In C. R. Brewin, A. Steptoe & J. Wardle (Eds), *European Perspectives in Clinical and Health Psychology*, pp. 101-118. Leicester: The British Psychological Society.

Particular care should be taken to ensure that references are accurate and complete. All journal titles should be given in full.

- (g) SI units must be used for all measurements, rounded off to practical values if appropriate, with the Imperial equivalent in parentheses (see *BPS Style Guide*).
 - (h) Authors are requested to avoid the use of sexist language.
 - (i) Supplementary data too extensive for publication may be deposited with the British Library Document Supply Centre. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The materials should be submitted to the Editor together with the article, for simultaneous refereeing.
6. Brief Reports and Comments are limited to two printed pages. These are subject to an accelerated review process to afford rapid publication of research studies, and theoretical, critical or review comments whose essential contribution can be made within a small space. They also include research studies whose importance or breadth of interest is insufficient to warrant publication as full articles, and case reports making a distinctive contribution to theory or method. Authors are encouraged to append an extended report to assist in the evaluation of the submission and to be made available to interested readers on request to the author. To ensure that the two-page limit is not exceeded, set typewriter margins to 66 characters maximum per line and limit the text, including references and a 100-word abstract, to 150 lines. Figures and tables should be avoided. Title, author and name and address for reprints and date of receipt are not included in the allowance. However deduct three lines from the text each and every time any of the following occur:
 - (a) title longer than 70 characters,
 - (b) author names longer than 70 characters,
 - (c) each address after the first address,
 - (d) each text heading (these should normally be avoided).A character is a letter of space. A punctuation mark counts as two characters (character plus space) and a space must be allowed on each side of a mathematical operator.
7. Proofs are sent to authors for correction of print, but not for introduction of new or different material. They should be returned to the Journals Manager as soon as possible. Fifty complimentary copies of each paper are supplied to the senior author on request; further copies may be ordered on a form supplied with the proofs.
8. Authors should consult the Journal editor concerning prior publication in any form or in any language of all or part of their article.
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Appendix 4.2 - Protocol for File Reviews

| Details | Info | Code |
|--|--|------|
| Participant No. | | |
| DOB | | |
| Marital status | 1= married, 2=single, 3=divorced, 4=separated, 5=cohabiting | |
| No of children | | |
| Qualifications | 0=none, 1=O grades, 2=H grades, 3=Degree, 4=Higher Degree | |
| Recent primary diagnosis | 1= schizophrenia, 2=other schizophrenia, 3=psychosis, 4=affective disorder, 5=personality disorder, 6=substance abuse, 7=organic impairment, 8=learning disability | |
| Recent secondary diagnosis | 1= schizophrenia, 2=other schizophrenia, 3=psychosis, 4=affective disorder, 5=personality disorder, 6=substance abuse, 7=organic impairment, 8=learning disability | |
| Age at interview | | |
| Date of Admission to SH | | |
| Age at admission | | |
| Length of present stay | | |
| Where admitted from | 1=hospital, 2=YOP, 3=prison(convicted), 4=prison(remand) | |
| No. of previous admissions | | |
| Duration of past stay | | |
| Total months in SH | | |
| 1 st contact with psych. Services | | |
| Total convictions. | | |
| Age of first conviction | | |
| Index offence | | |
| Alcohol/drugs history | 1= alcohol, 2=drugs, 3=drugs and alcohol, 4=none | |
| Self harm in the SH | 1=yes, 2=no | |
| Self harm prior to SH | 1=yes, 2=no | |
| Age of onset of self harm | 1=childhood. 2=adolescence, 3=adulthood | |
| History of sexual abuse | 1=yes, 2=no | |
| Age of onset | 1=childhood. 2=adolescence, 3=adulthood | |
| History of physical abuse | 1=yes, 2=no | |
| Age of onset | 1=childhood. 2=adolescence, 3=adulthood | |

Appendix 4.3 continued**History of Self Harm**

3. Have you ever thought about or actually deliberately hurt yourself in any way?

4. How many times (approximately)-

- in the last 2 years (in hospital and out)?

- ever?

- When did you begin to harm yourself?

- When was the last time you harmed yourself?

Description of Most Recent Incident

5. Please tell me what you did when you last harmed yourself (method and place and circumstances)

Appendix 4.3 continued

6. Why did you harm yourself? - (determine suicidal intent via Beck Scale for Suicidal Ideation)

7. Please describe what happened immediately after the incident

8. Did people find out about it?

9. How did you feel afterwards?

Appendix 4.4

MEPS Stories

1. H loved his/her girlfriend very much, but they had many arguments. One day she/he left him/her. H wanted thing to be better. The story ends with everything fine between him/her and his/her girlfriend/boyfriend. You begin the story with his/her girlfriend leaving him/her after an argument.
2. J noticed that his/her friends seemed to be avoiding him/her. J wanted to have friends and be liked. The story ends when J's friends like him/her again. You begin where he/she first notices his/her friends avoiding him/her.
3. One day G was standing around with some other people when one of them said something very nasty to G. G got very mad. G got so mad he/she decided to get even with the other person. The story ends with G happy because he/she got even. You begin the story when G decided to get even.

Appendix 4.5 - Research Study Information Sheet

Explanation for patients

I am a Trainee Clinical Psychologist working at the State Hospital and I would appreciate your collaboration in some research that I am carrying out. I will be interviewing a number of people in the hospital in order to find out more about the types of problems which people experience in the hospital. This is with a view to finding out how people deal with these problems.

The interview will consist of a series of questions looking at the types of stress that you encounter. It will also focus in part on asking you about any 'low points' that you may have experienced where you may have thought about or actually have harmed yourself. The interview will also involve an exercise where you will be asked to fill in the blanks of a number of short stories. The interview and exercise will take up about an hour of your time. You would be free to withdraw from the interview at any point if you wished.

The information that you give will be used for both research and clinical purposes. I am particularly interested in the pattern of problems across patients as a group; although you will not be identified individually in our results a summary of the information you give will be entered into your medical files.

I will be happy to answer any questions you ask about the nature of the research. I would also be grateful if you would indicate your willingness to participate by signing the consent form.

Yours sincerely

Karen Allan
Trainee Clinical Psychologist

Appendix 4.6

Research Consent Form

Part 1 (to be signed by the patient)

I, agree to be involved in the study being carried out by Karen Allan, Trainee Clinical Psychologist. I am satisfied that the purpose and procedures of the study have been fully explained to me and that I have also received a written explanation of the study.

I agree to the information I provide being made available to members of my care team. I understand however that my involvement in the study will be entirely without prejudice to me and that I can withdraw at any time.

Signed Date



Part 2 (to be signed by the RMO)

I,, Responsible Medical Officer to the above named patient, hereby give my approval to his/her involvement in the research project conducted by Karen Allan. I have received a written explanation of the study and am satisfied that the patient is capable of giving consent to his/her involvement in the proposed research project.

Signed..... Date

Appendix 4.7

| Independent t tests comparing means between the parasuicide group and the comparison group on background variables | | | | | | | |
|---|---------------------|----------|-------------|----------------------|----------|-----------|-------------|
| Variable | Para-suicide | N | Mean | Std Deviation | t | df | Sig. |
| No. of children | Yes | 36 | 0.11 | 0.52 | -1.587 | 53 | n.s. |
| | No | 35 | 0.40 | 0.95 | | | |
| Age at interview-months | Yes | 36 | 406.35 | 98.15 | -1.267 | 70 | n.s. |
| | No | 36 | 437.10 | 107.58 | | | |
| Age at admission-months | Yes | 36 | 341.20 | 94.01 | -1.268 | 70 | n.s. |
| | No | 36 | 370.96 | 104.87 | | | |
| Length of present stay-months | Yes | 36 | 65.15 | 54.59 | -0.019 | 70 | n.s. |
| | No | 36 | 64.41 | 61.02 | | | |
| Total duration in SH-months | Yes | 33 | 89.70 | 81.12 | 0.746 | 67 | n.s. |
| | No | 36 | 76.74 | 62.76 | | | |
| No. of previous admissions to SH | Yes | 36 | 0.56 | 1.00 | 1.422 | 58 | n.s. |
| | No | 36 | 0.28 | 0.61 | | | |
| Age at 1st psychiatric contact-months | Yes | 35 | 184.15 | 67.92 | -3.320 | 58 | P=0.002 |
| | No | 35 | 254.99 | 106.39 | | | |
| Total convictions | Yes | 36 | 7.58 | 10.06 | -1.220 | 70 | n.s. |
| | No | 36 | 12.31 | 20.92 | | | |
| Age at 1st conviction | Yes | 18 | 16.96 | 3.18 | -1.888 | 37 | n.s. |
| | No | 26 | 19.94 | 7.09 | | | |

Appendix 4.8

| Chi-square calculations for background factors differentiating the parasuicide group from the comparison group | | | | | | |
|--|---------------------------|--------------------|-----------------|---------------------|----|--------|
| Variable | | Parasuicide (n) | Non-para (n) | Chi-square value | df | Sig. |
| Marital status | Married/cohab | 4 | 5 | Fishers exact | | 1.00 |
| | Single/divorced/separated | 32 (36) | 31 (36) | | | (n.s.) |
| Qualifications | O/H Grades | 7 | 5 | 0.4 | 1 | (n.s) |
| | None | 29 (36) | 31 (36) | | | |
| Primary diagnosis | Psychotic disorder | 27 | 27 | 0 | 1 | (n.s) |
| | Learning disability | 9 (36) | 9 (36) | | | |
| Secondary diagnosis | Personality Disorder | 12 | 6 | 0.157 | 1 | (n.s) |
| | Other | 9 (21) | 6 (12) | | | |
| Referring institution | Hospital | 24 | 12 | 8.00 | 1 | 0.005 |
| | Prison | 12 (36) | 24 (36) | | | |
| Substance abuse history | Yes | 16 | 20 | 0.223 | 1 | n.s. |
| | No | 20 (36) | 18 (36) | | | |
| Sex abuse History | Yes | 11 | 1 | 10.0 | 1 | 0.002 |
| | No | 25 (36) | 35 (36) | | | |
| Physical abuse history | Yes | 7 | 8 | 0.084 | 1 | n.s |
| | No | 29 (36) | 28 (36) | | | |

Appendix 4.9

| Independent t tests comparing MEPS scores between the parasuicide group and the comparison group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------|----|------|---------------|-------|----|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|------|-------|----|------|----|----|------|------|---------------------------------|-----|----|------|-----|-------|----|------|----|----|------|-----|---------------------------------|-----|----|------|-----|-------|----|------|----|----|------|-----|---------------------------------|-----|----|-----|-----|------|----|------|
| Variable | Self harm | N | Mean | Std Deviation | t | df | Sig. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relevant means total | Yes | 18 | 2.12 | 1.25 | -0.14 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 2.22 | 1.06 | | | | Irrelevant means total | Yes | 18 | 0.56 | 0.62 | -0.55 | 34 | n.s. | No | 18 | 0.67 | 0.59 | No means total | Yes | 18 | 0.44 | 0.78 | 0.24 | 34 | n.s. | No | 18 | 0.39 | 0.61 | Active means total | Yes | 18 | 2.11 | 1.23 | 0.14 | 34 | n.s. | No | 18 | 2.06 | 1.16 | Passive means total | Yes | 18 | 0.06 | 0.24 | -1.05 | 28 | n.s. | No | 18 | 0.17 | 0.38 | Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | No | 18 | 0.22 | .43 | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. |
| Irrelevant means total | Yes | 18 | 0.56 | 0.62 | -0.55 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.67 | 0.59 | | | | No means total | Yes | 18 | 0.44 | 0.78 | 0.24 | 34 | n.s. | No | 18 | 0.39 | 0.61 | Active means total | Yes | 18 | 2.11 | 1.23 | 0.14 | 34 | n.s. | No | 18 | 2.06 | 1.16 | Passive means total | Yes | 18 | 0.06 | 0.24 | -1.05 | 28 | n.s. | No | 18 | 0.17 | 0.38 | Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | No | 18 | 0.22 | .43 | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | |
| No means total | Yes | 18 | 0.44 | 0.78 | 0.24 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.39 | 0.61 | | | | Active means total | Yes | 18 | 2.11 | 1.23 | 0.14 | 34 | n.s. | No | 18 | 2.06 | 1.16 | Passive means total | Yes | 18 | 0.06 | 0.24 | -1.05 | 28 | n.s. | No | 18 | 0.17 | 0.38 | Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | No | 18 | 0.22 | .43 | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | |
| Active means total | Yes | 18 | 2.11 | 1.23 | 0.14 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 2.06 | 1.16 | | | | Passive means total | Yes | 18 | 0.06 | 0.24 | -1.05 | 28 | n.s. | No | 18 | 0.17 | 0.38 | Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | No | 18 | 0.22 | .43 | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Passive means total | Yes | 18 | 0.06 | 0.24 | -1.05 | 28 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.17 | 0.38 | | | | Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | No | 18 | 0.22 | .43 | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inappropriate means total | Yes | 18 | 0.33 | .49 | 0.73 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.22 | .43 | | | | Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | No | 18 | 0.67 | 0.26 | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of relevant means | Yes | 18 | 0.67 | 0.34 | 0.00 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.67 | 0.26 | | | | Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | No | 18 | 0.62 | .30 | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of active means | Yes | 18 | 0.64 | .33 | 0.31 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.62 | .30 | | | | Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | No | 18 | 0.05 | .12 | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of passive means | Yes | 18 | 0.02 | .08 | -0.97 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | 0.05 | .12 | | | | Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quotient of inappropriate means | Yes | 18 | .11 | .16 | 0.65 | 34 | n.s. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | No | 18 | .07 | .14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Appendix 4.10

| Mann Whitney U analysis of differences in MEPS scores between learning disabled individuals and non learning disabled individuals | | | | | | |
|--|--------------------------|----------|------------------|---------------------|----------|-------------|
| Variable | Primary diagnosis | N | Mean rank | Sum of ranks | Z | Sig. |
| Relevant means total | Psychotic disorder | 24 | 21.83 | 524 | -2.816 | P=0.005 |
| | Learning disability | 12 | 11.83 | 142 | | |
| Irrelevant means total | Psychotic disorder | 24 | 16.42 | 394 | -1.891 | n.s. |
| | Learning disability | 12 | 22.67 | 272 | | |
| No means Total | Psychotic disorder | 24 | 16.75 | 402 | -1.706 | n.s. |
| | Learning disability | 12 | 22.00 | 264 | | |
| Active means total | Psychotic disorder | 24 | 21.94 | 526 | -2.917 | P=0.004 |
| | Learning disability | 12 | 11.63 | 139 | | |
| Passive means total | Psychotic disorder | 24 | 18.00 | 432 | -0.740 | n.s. |
| | Learning disability | 12 | 19.50 | 234 | | |
| Inappropriate means total | Psychotic disorder | 24 | 19.50 | 468 | -1.038 | n.s. |
| | Learning disability | 12 | 16.50 | 198 | | |
| Quotient of relevant means | Psychotic disorder | 24 | 21.85 | 525 | -2.832 | P=0.005 |
| | Learning disability | 12 | 11.79 | 142 | | |
| Quotient of active means | Psychotic disorder | 24 | 21.88 | 525 | -2.840 | P=0.005 |
| | Learning disability | 12 | 11.75 | 141 | | |
| Quotient of passive means | Psychotic disorder | 24 | 17.96 | 431 | -0.800 | n.s. |
| | Learning disability | 12 | 19.58 | 235 | | |
| Quotient of inappropriate means | Psychotic disorder | 24 | 19.46 | 467 | -0.990 | n.s. |
| | Learning disability | 12 | 16.58 | 199 | | |