SUICIDAL IDEATION AND PROBLEM SOLVING SKILLS OF UNIVERSITY STUDENTS OF IRELAND

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UNIVERSITY OF PESHAWAR

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APPROVAL CERTIFICATE

This is to certify that the Present Research entitled "Suicidal Ideation and Problem Solving Skills of University Students of Ireland" Submitted by Farah Deeba confirm to Acceptable Standards, and as such is fully adequate in scope and quality. It is therefore Approved as the Fulfillment of the Dissertation Requirement for the Degree of Doctor of Philosophy in Psychology.

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FARAH DEEBA

ABSTRACT

To investigate whether suicidal ideation is an indicator of suicide risk, a study was undertaken to examine the ability of suicidal ideation to distinguish population segments on the basis of their attitudes to suicidal behaviour and their own problem solving ability. Three hundred and fifty students attending University College Cork, Ireland were randomly selected and administered the questionnaire used was designed specifically for the present study and comprised four self-report measures in English language appeared in the following order. Demographic information was modified from the socio-demographic section of the European Parasuicide study Interview schedule (Kerkhof et al., 1994), Four factorially derived Clinical Scales from the Suicide Opinion Questionnaire (Domino et al., 1996), Suicide History Questionnaire was modified from the demographic section of the Suicide Opinion Questionnaire (Domino et al., 1982), The Self-rating Problem Solving Scale (McLeavey and Daly, 1988). The mean age of the sample was 19.1 years, with a model age of 18. Age ranged from 17 years to 25 years. Respondents were allocated to one of three groups on the basis of their lifetime suicidal ideation history: Non-ideators: 239 respondents (69%) who had never considered suicide in their lifetime; Ideators: 109 respondents (31%) who had considered suicide at least once; Planners: 21 Ideators who had made a plan for self-harm. Non-ideators had the highest problem solving scores and were significantly better than planners ($p < 0.001$) and Ideators ($p < 0.001$).

Ideators without a plan scored higher than planners (p<0.435). Male and female respondents did not differ significantly overall, but they did exhibit distinctly different patterns in problem solving across ideation levels. Non-ideators were significantly less in agreement than the Ideators and Planners (p < 0.001) with the attitude that suicidal behaviour is normal. Non-ideators were also significantly less in agreement than Ideators (p < 0.001) and Planners (p < 0.015) with the behaviour that people have the right to take their own lives. There were no significant gender differences on any of the attitude scores. Test-retest correlations were significant for all scales (p < 0.01). One-quarter of the Planners reported that they were more likely than not to attempt suicide while only 2% of Non-ideators and Ideators respectively expressed this estimate. Step-wise selection of predictor variables indicated that gender; normality and problem- solving scores were effective as gender and all five scales combined correctly classifying one-third of the Ideators and approximately half of the Planners. The findings are evaluated in terms of predicting the suicide risk.

CHAPTER-I

INTRODUCTION

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INTRODUCTION

The present study examines thoughts of suicide, thoughts relating to suicidal behaviour and the ways in which these may be inter-related. Although the majority of historical evidence and scientific researches relate to cross-cultural attitudes towards completed or attempted suicide, the focus of the present research study is primarily on suicidal ideation.

Attitudes mediate not only people's orientations to suicidal behaviour as a concept, but also the ways in which people accommodate self-harming behaviour in them and in others (Morrison & Downey, 2000). A growing body of research suggests that attitudes to suicidal behaviour delineate the thresholds at which people will entertain suicidal thoughts and possibly engage in self-harm (Limbacher & Domino, 1986; Linehan, Goodstein, Nielson & Chiles, 1983, Linehan, Camper, Chiles, Strosahl & Shearin, 1987).

Suicide is complex because it lies outside the 'cause-and-effect' classification of behaviour and its low incidence makes research difficult (Tierney, Ramsay, Tanney & Lang, 1990). Suicide-related cognitions however are measurable in every person and provide information that may help to distinguish those who consider engaging in suicidal behaviour from those who do not (Wu, Margulies, Davis & Karam, 2001). It is a leading cause of death among adolescents in many countries, including the United States, making identification of depression and suicidal ideation in this age group vitally important. These cognitions include among

other variables, people's attitudes both to suicidal behaviour and to coping more generally (Carlton & Deane, 2000). Suicide has been defined by the WHO as:"..an act with a fatal outcome which the deceased, with the knowledge and expectation of a fatal outcome, had himself planned and carried out with the object of bringing about the changes desired by the deceased," (Retterstol, 1993,p2). Suicidal thoughts have been defined as: "behaviour that can be directly observed where the person concerned states that he or she is thinking about putting an end to his or her life. The category of suicidal thoughts include thoughts which are spontaneously reported to others, or which are confirmed when the person concerned is asked," (Retterstol, 1993). Currently, the Diagnostic and Statistical Manual (DSM-IV) categorises suicidal ideation, attempt and specific plans to self-harm as diagnostic criteria for major depressive episode and major depressive disorder (American Psychiatric Association, 1994). However, nowhere in the DSM-IV or the International Classification of Diseases (ICD-10) are suicidal behaviours accorded a separate diagnostic category.

Suicidal ideation is exemplary of the problems encountered in defining suicidal behaviour. It has been defined as plans and wishes to attempt suicide (Beck, Kovacs & Weissman, 1979). In contrast O' Carroll, Berman, Maris, Moscicki, Tanney & Silverman (1996) define ideation as self reported thoughts of engaging in suicide-related behaviour. This means that ideation does not have to include suicidal intent. Suicidal ideation has been taken to incorporate a whole range of different thoughts including: attitudes to suicidal behaviour e.g. considering the suicidal act as

a potential coping option and contemplations involved in articulating plans and preparations for self-harm.

Attitudes may be described as mental responses (McGuire,1985) that inform behaviour to different degrees. Attitude as a hypothetical construct can be broadly applied in two ways: describing individual dispositions and cultural trends (Allport, 1935; Inglehart, 1997). It is important to consider attitudes historically because they are often fluid and have probably changed more than any other suicide variable such precipitant, method, or motive; and also because past attitudes inform our present ones. The history of suicidal behaviour and its influence on attitudes is examined purely from a western perspective, to illuminate some of the salient features of the attitudes measured in the present study.

As the meaning of suicidal behaviour has evolved across time and societies, so have the attitudes towards it. Cultural acceptance and rejection of suicide conveyed through attitudes have served to facilitate or inhibit this behaviour at different times and in different contexts. When knowledge around suicidal behaviour is lacking it is attributed to irrational factors. During the 20th century, mental illness had been the context within which psychologists and psychiatrists- both for the purposes of research and prevention have addressed suicidal behaviour. Many will regard suicide and attempted suicide as an act, which in itself is so abnormal that it is an expression or symptom of a psychiatric illness. (Rettersol, 1993). Although the mental illness model in itself does not depict suicidal behaviour as irrational, the 'Pathologising' of suicidal behaviour has been transformed within the public psyche into a predominant

frame of reference that qualifies the act as illogical and in consistent. However, suicide is thought to feature in the human behavioural repertoire since the evolution of humanity (Alvarez, 1972; Rosen, 1971) although human response to it and other forms of suicidal behaviour has not been uniform across time:

Suicide has been practised for thousands of years in primitive and historic societies, but the ubiquity of the phenomenon has been associated with a wide diversity of attitude and feeling in the judgement of suicidal behaviour. Societal responses to the act of self-destruction can be viewed as a spectrum ranging from outright condemnation on the one hand through mild disapproval to acceptance and incorporation into the socio-cultural system on the other (Rosen, 1971).

Attitudinal trends in relation to suicide can be briefly described as a process of gradual transformation from tolerance to intolerance to tolerance, over a 2,000-year period (MacDonald and Murphy, 1990). Suicidal behaviour has received approval and disapproval from different institutions at the same time and response has varied according to the circumstances of the person involved. On an individual level, numerous variables including experience, knowledge, personality, and value orientations determine attitudes to suicidal behaviour.

Rates of suicidal behaviour are thought to vary according to tolerance (Marks & Riley, 1976) socio-cultural setting (Shaffer, 1994, 1998; Shaffer, Garland, Fisher & Trautman, 1998) and the extent of integration within societies (Durkheim, 1897). During times of strong social control, attitudes towards suicide have become embedded in emotional and irrational explanations (Farberow, 1975). In primitive

societies, attitudes conveyed through belief in magic and superstition acted as a form of social-behavioural control. In later civilisations, residual attitudes and taboos derived from superstition became lodged in organised religious faith and beliefs. In this way, orientations to suicide have evolved according to the dominant organised systems or institutions including supernatural, religious, philosophical, legal and pathological frameworks.

Interpretation of suicide

Attitudes play an important role in the interpretative process. "Aristotle equated suicide with the annulment of contract between an individual and society and in some cases as an offence against the state, while Pythagoras is said to have compared suicide with a soldier abandoning his post (Williams, 1997)". "Plato considered suicide to be acceptable only in specific situations (Marietta and De Leo, 1997)".

Over 17th centuries later Freud (1917) was expounding a psychoanalytic theory of suicide in terms of self-directed anger while Menninger (1938) was articulating the unconscious motives of suicidal person as 'the wish to kill…the wish to be killed, and…the wish to die' in predominantly psychodynamic contexts (Shneidman, 1998).

The effect of motive on attitude

In the 20th century, the motivation for nonfatal suicidal behaviour has most often been interpreted as a cry for help (Farberow & Shneidman, 1961; Stengel, 1975). This behaviour is attributed primarily to the person's desire to save their own

life by appealing for help, rather than seeking an exit through death. Non-fatal self-harm is understood to be a 'weak' form of suicidal behaviour and ironically, the implications for attitudes have been negative as it is less inclined to be taken seriously (Perrone and Domino, 1993). Canetto (1998) argues that in western cultures, gender role expectations are instrumental in the form of suicidal behaviour selected. The motivations of people holding attitudes are as important as the motivations they impute from the suicide victim or attempter. One of the main reasons for condemnation of suicide during the Roman Empire was economic, often to prevent loss of slaves to suicide. Saint Augustine was a representative of the Catholic Church, condemned suicide in order to impede the Donatist practice of self-destruction and to set it apart from Christian martyrdom (Van Hooff, 1990). These motivations shaped church law at the Council of Braga CE 563, where the act of suicide was condemned by the Church and later again in CE 1284 at the Synod of Nimes, where the denial of suicide burial in consecrated became a canon law.

Medical and moral interpretations

Medical and moral vulnerability to suicide have at times been indistinguishable. In the 17th century, melancholy was sometimes regarded as a human flaw preceding the sin of suicide and at other times as a psychological disorder arising from a "*humoral excess*" or "*imbalance*". Increasing medical knowledge of suicide therefore had moral implications. As knowledge of mental disorder accumulated, it was increasingly considered a basis for suicide, often overriding moral culpability (Neser, 1613; Sym, 1673).

The treatment of suicide in Ireland

If suicide is a contextually and culturally specific behaviour, its meaning in Ireland has been partly shaped by the effects of institutional and lay disapproval (Fogarty, Ryan & Lee, 1984). The framework in which suicide has been interpreted throughout the 20th century has been a combination of psychopathological, legal and moral contexts.

As Sheehan (1993, C3) has said "For someone to commit suicide in Ireland they have to be sinful, unlawful or insane". The decriminalisation of suicide and attempted suicide in Ireland occurred only in 1993, although the denial of sacred burial to suicide victims by the Catholic Church was at the discretion of the local priest and had been gradually diminishing long before this (Kelleher, 1998). Individual and institutional responses were often contradictory because of differing institutional and personal motivations. While the Church wished to define the notion of the sanctity of human life and God's exclusive right to end it, priests were frequently more motivated to assist surviving families and save them from the stigma or extra torment that a refusal of sacred burial would create.

If the increasing incidences of suicide and Para suicide are taken as an index of change in the meaning of these behaviours, it would appear that attitudes to suicidal behaviour have also evolved considerably in a compressed period of time. The meaning given to suicide within youth culture is particularly important for an understanding of its rising incidence (Boldt, 1987; Kelleher and Chambers, 1998). This may be because of the limited life experience and sensitivity to socialisation that

characterises this age group. Taken together, these factors may contribute particularly to the onset of suicidal tendency in young non-clinical populations. Bille-Brahe (1998) argues that recent generations of children have not been provided with stable values or norms and that this does not facilitate the development of good coping strategies in young people in Ireland, the increases in suicide among young people (15-19 year olds and 20-24 year olds) from 1970-1985 were higher than in any other European country (Retterstol, 1993).

Engaging in suicidal behaviour is largely dependent on its cultural availability and acceptability within ideological and behavioural repertoires. As an example, concepts of 'rational suicide' and the 'right to suicide' feature commonly in social discourse. The subtext of such popular terminology is that suicide is perceived in some subcultures as a useful coping strategy when stressful situations are encountered (Boldt, 1987). Attitudes that view suicide as a solution to life problems may have a particularly potent impact on the behaviours of young, non-clinical populations and in the onset of suicidal behaviour (Shaffer, 1994).

Environmental factors

During the 16th and 17th centuries, environmental factors were becoming as important as 'Personological' factors within social and medical fields. The association between suicide and mental illness encouraged broader debate about social stresses and risk factors for suicide. The environmental perspective had a similar effect to that of psychopathological frameworks in removing responsibility from the individual and fostering less punitive attitudes to suicide (Rosen, 1971).

The availability of reliable records during the 19th century stimulated concern over the apparent rise in suicide (Rosen, 1971). It also created urgency among doctors, reformers and statisticians to find the cause of this increase and necessitated a scientific approach. While suicide was attributed to social problems and examined in the same category as poverty, disease and alcoholism (Durkheim, 1897/1952), the mental health field, synonymous with medical science, was already sufficiently mobilised to deliver treatment to a proportion of those people identified as at-risk. Medical science was also appealing because its approach to all illness was to seek out the single simplest 'common denominator' (Isacsson and Rich, 1997).

The development of suicidology

According to Silverman (1997) suicide and suicide-related behaviours have become the subject matter of formalised study over the past 100 years. Out of growing awareness of the broad range of factors contributing to suicidal behaviour – including pathological, psychological, social, and cultural factors among others- the need was recognised for a pooled, multidisciplinary approach to the study of suicide. Suicidology has also provided a domain for the accumulation of documented knowledge on suicidal behaviour internationally. Its greatest success has been in harnessing ongoing multidisciplinary debate to produce workable, comprehensive models of suicide prevention. These have moved increasingly towards multi-sectorial and culturally-specific application.

Endurance of a medical model

Despite the elaboration of debates in research on suicidal behaviour, Pabst-Battin (1995) argues that the broader issues of suicide have been almost entirely ignored in the public domain over the past twenty years. At the same time there has been an almost exclusive focus on freedom of choice concerning euthanasia for example and on the other hand the need for prevention (Pabst-Battin, 1995; Marietta and De Leo, 1997). The main dialectic in contemporary western society therefore is between:

1. Suicide prevention, based on the assumption that suicide is a painful, irrational aberration and that people are coerced into suicide through difficult circumstances
2. Patients' rights advocacy and self-determination based on the notion of suicide as a welcome option, voluntarily chosen when physical or psychological pain or deterioration occurs as in earlier times, opposing attitudes have coexisted that represent the positions of dominant institutions and domains. At present, contrasting views are held both within and between the mental health field and the human rights movement respectively.

Determinist perspectives

Pabst- Battin (1995) argues that contemporary western scientific treatment of suicide is now primarily "*determinist*", envisioning suicide as something that

happens to an individual, over which they have no personal control. This perspective characterises the following approaches to suicide:

1. Suicide as an outcome of mental illness;
2. Suicide as a cry for help;
3. Suicide as an outcome of social factors outside of an individual's control;

An alternative approach has been provided by the action theory perspective (Michel, Dey & Valach, 1998), which interprets suicidal behaviour in terms of person's goal rather than some cause beyond their control. It might also be argued that the Cry for Help nature of self-harm – which Pabst- Battin (1995) attributes to a determinist perspective-is instead an adaptive part of a person's coping mechanism through which they achieve assistance from other people (Linehan, Camper, Chiles, Strosahl & Shearin, 1987).

Suicidal behaviour and mental illness

Psychiatrists have always had diverse views regarding suicidal behaviour. Some researchers have regarded suicide as a unique form of insanity and others have conceptualised it as a common accompanying of mental illness rather than a separate, distinct disease. Esquirol (1838) – founder of a school of psychiatry- emphasised that almost all who commit suicide are mentally ill. More recently, researchers of the medical model point out that suicidal behaviour cuts across diagnostic categories and are symptom-specific rather than category-specific in diagnostic terms (Kienhorst,

1998; Van Praag, 1998). However the relationship varies according to the form of suicidal behaviour and age of the victim. For example, a significant proportion of young suicides have no defined psychiatric illness (Brent *et al.*, 1993b).

Briere de Boismont (1856) asserted that some suicides are not due to insanity. He enumerated alternatives causes, including somatic illness, family and relationship problems, and financial problems. It is now generally accepted that only a small proportion of those who suffer from mental illness attempt or commit suicide (Roy, 1991).

Studies of completed suicide, called Psychological Autopsy Studies, indicate a minority of cases that do not involve any psychiatric disorder (Robins, Murphy, Wilkinson, Gasner & Kayes, 1959; Barraclough, Bunch, Nelson & Sainsbury, 1974). In three such studies, 93% of each sample of suicides was diagnosable with a mental illness (Barraclough, Bunch, Nelson & Sainsbury, 1974; Henriksson *et al.*, 1993; Kelleher, Keeley & McAuliffe, 1998). However because a large amount of the information used in this type of methodology can be second-hand, coming from relatives rather than direct assessment of the dead person, these proportions are questionable. The mental illness hypothesis becomes weaker in younger suicides because psychiatric diagnoses are less common (Brent, Perper, Moritz, Baugher & Allman, 1993). The commonest precipitant is some kind of interpersonal conflict, usually within 72 hours of the death (Hoberman and Garfinkel, 1998; Hawton and Fagg, 1992).

Suicidal thoughts and behaviours have been associated with clinical depression more than any other psychopathology. Those who have ended or want to end their lives or who seem to want to do so are often assumed to be depressed in the sense of being mentally ill, rather just miserably unhappy (Fairbairn, 1995, p28). However, it should not be forgotten that other psychiatric syndromes also carry an increased risk of suicide. It is the commonest cause of death in those diagnosed with schizophrenia (Kelleher, Hynes & Keeley, 1998). Despite this strong association evidence suggests that the suicide rate has increased independently of the mental illness rate. The relationship between suicidal behaviour and mental illness is not a uniform one. In addition, symptoms of mental illness as it is experienced are not becoming more severe (Casey, 1997, p12). Barraclough, Bunch, Nelson & Sainsbury, (1974) argue that the cause of suicidal behaviour may be as much a cultural issue as a mental illness one. People live in attitudinal contexts, which influence the impact of psychopathological risk factors on rates of suicidal behaviour. McKenna & Wasserman (1997,p62) have explained that there was no compelling evidence to suggest that mental illness was significantly more common today than it was thirty years ago. Rather a depressed person today is more likely to consider suicide as an option than a similarly depressed person two or three decades ago.

Contemplation of self-harm (suicidal ideation) is mediated by the ways people conceptualise and evaluate suicidal behaviour in general and their own coping behaviour in particular. When suicide is regarded as an effective means of solving

one's own problems, there is greater risk of eventual self-harm (Strosahl, Chiles & Linehan, 1992; Linehan, Camper, Chiles, Strosahl & Shearin, 1987).

Recently irrational thoughts relating to suicidal behaviour have been re-conceptualised as 'maladaptive attitudes' in the broader context of coping skills. Attitude measures as opposed to psychiatric disorder are now more commonly used to measure cognitive deficits or risk factors for suicide. This has led to the study of suicide attempters' evaluations of self-efficacy, independent of psychopathology (Schotte & Clum, 1982; Linehan, Camper, Chiles, Strosahl & Shearin, 1987; McLeavey, Daly, Murray, O' Riordan & Taylor, 1987; McLeavey, Daly, Ludgate & Murray, 1994). All of this evidence indicates that the mental illness hypothesis of suicide is neither necessary nor sufficient to explain suicide trends.

The common psychological denominator

Suicide is now widely recognised as a multifaceted entity that incorporates biological, social, cultural, interpersonal, intrapsychic and philosophical characteristics, among others. Shneidman (1996) sees suicide as one outcome of individual and societal failure to respond to the frustrated psychological needs or psychache of the suicidal individual. He insists that it is nevertheless fundamentally a psychological process that unfolds in the person's mind: I retain the belief that, in the proper distillation of the event, its essential nature is psychological, (Shneidman, 1996, p5). He points to the study of human emotion as the focus for suicide prevention efforts and on the basis of his research, Suicide Prevention Centres were

established throughout North America from 1958. Having access to suicide notes and documentation of a large cross-section of cases of suicide, Shneidman recognises emotional pain as the most prevalent common denominators. The rationale behind Shneidman's view is that some cases of suicide occur when a person is mentally ill but almost every case of suicide is an outcome of excessive psychache. Everyone who commits suicide feels driven to it- indeed feels that suicide is the only option left, (Shneidman, 1996,p13). Furthermore, he regards being suicidal as a 'state of mind' and draws this theory largely from his study of suicide notes and case histories of failed suicides. He interprets each 'history' in terms of the most important needs of the person. When these needs are frustrated or go unmet, Shneidman argues that the felt pain or perturbation of subjective distress- regardless of underlying cause- provides the motivation for suicide.

Fairbairn (1995) like Shneidman, focuses on internal events rather than the consequences of self-harm. He argues that it is these internal events that determine whether a person enters a suicidal state and also the goal or aim that they will formulate. He chooses to define and conceptualise suicidal behaviour on the basis of the individual's intention and argues that we should focus on the importance of the person's intention in acting as he does and on the significance that his act has for him (Fairbairn, 1995,p58). Fairbairn's (1995) theory leads back to the distinction between what the individual means by the act and the way in which others choose to interpret the act. In practical decisions, what is generally important is not the actual intention of the person, but rather the intention that others believe he had in acting" (Fairbairn,

1995, p57). This is closely related to two important features of attitudes to suicide historically. The motive of the person who is suicidal and the motive of the person who attributes cause to the suicidal act: Fairbairn's observation is also a critique of current methods, which rely exclusively on second-hand information for studying the motivations and intentions of people who are already dead. To a large extent suicidal ideation is a process of consideration and is an integral part of the formulation of suicidal intent: Suicidal ideation and the individual's attitudes to suicide obviously play a central role in lethality. It is considerably more likely however that a person who is suffering will be "driven" to suicidal behaviour if the culture or subculture in which they operate is one that evaluates suicidal behaviour as something that is normal and useful (Boldt, 1987).

Most measures of suicidal intent tend to take into account primarily the proximal characteristics of the individual's behaviour, such as the degree of preparation, the circumstances in which the act was carried out, the person's knowledge of their chosen method's lethality etc. An alternative approach is to examine the recalled 'ideation' within the broader context of a person's narrative. When elicited, this account allows the person to articulate the goal they had in harming themselves and how far back in time the narrative starts (Michel, 1998). When this approach is carefully applied, attributions of motive made by helping professionals are found to be more accurate.

Towards attitude measurement

Research into suicide causation has traditionally informed models for prevention (Shaffer, 1994) and classification (O' Carroll *et al.*, 1996) of suicidal behaviour. Psychological and psychiatric treatments of suicide have primarily operated from the premise of pathology. Unfortunately by limiting studies to maladaptive traits and risk factors present in suicidal populations, other important characteristics were being ignored (Linehan, Goodstein, Nielson & Chiles, 1983). The more recent contextual shift since the 1970s towards nonclinical (general population samples without psychiatric diagnoses) through community studies and cross-cultural analysis of suicide, has been largely due to the realisation that this focus was too narrow. There has been increasing awareness that only a minority of people diagnosed as mentally ill attempt or commit suicide and that most cases occur outside treatment settings but within the general community. A greater number of studies since this time have emphasised that the 'cause' of suicidal behaviour are indicated in day-to-day socio-psychological interpersonal contexts (Lester, 1972; Ginsburg, 1971; Kalish, Reynolds and Farberow, 1974; Sale, Williams, Clark & Mills, 1975; Boldt, 1982; 1987).

Defining suicidal behaviour

The development and selection of any instrument tool are largely dependent on the nature of the attitudes to be measured. This requires salient and culturally appropriate items, with clear definitions. As "*attitude object,*" suicidal behaviours pose a particular problem. Suicidal behaviour is a complex, generic term

and there is persistent debate within suicidology concerning its definition and operationalisation.

The spectrum of suicidal behaviours includes suicidal thoughts and self-harm but there are as yet no universally accepted definitions for the different forms these behaviours take (O'Carroll *et al.*, 1996). In order to facilitate comparison between studies, definitions have had to remain approximate and flexible with the result that: "A looseness of nomenclature and classification of suicidal behaviours within the field of suicidology remain," (Silverman, 1997, p12). Nomenclature in suicidology is important because it facilitates communication between researchers and clinician and reduces confusion. It is also necessary precedent of classification because without terminology, suicidal behaviour cannot be arranged into categories of self-harming thoughts and actions. So far there has been a failure to derive any agreed nomenclature.

The Task Force of the Centre for Studies of Suicide Prevention (1970) proposed a useful rudimentary tripartite classification of suicidal behaviour:

1. Completed suicide
2. Attempted suicide
3. Suicidal ideas

The classification is a very rough approximation of categories into which particular instances of suicidal behaviour fall. A closer examination of these categories individually, indicates their complexity and the potential for overlap between them. In other words, the categories are not mutually exclusive. For instance the classification

does not distinguish between suicidal ideators who go on to self-harm and ideators who do not. Neither does the classification take into account those people whom self-harm but are not strictly attempting suicide, or failed suicides where the strongest intention is to die but death is not the outcome. However as O' Carroll (1996) explains nomenclature is an artificial constructing that does not set of distinct but overlapping phenomena. Even Beck *et al.*'s (1974) simple classification provides further specifications including: certainty of the ratter; lethality or medical danger to life; intent to die; mitigating circumstances; and method. Although Beck (1995) has continued to regard this scheme as an appropriate one, there has been failure to establish a common classification.

Islam and suicidal behaviour

Suicide, in simplistic terms, is a journey to hell. We are admonished in the Quran to treat life as an amanah or inviolable trust of Allah. And for a moment or two let us examine the causes of suicide. In the majority of individuals who commit suicide, the diagnosis attached to the patient is Major Depression. Sometimes, there is Bipolar Disorder/Manic Depressive illness and less frequently Schizophrenia. Drug and alcohol abuse can be admixed with any of the above.

It is only over the last twenty years or so that Medicine has refined the underlying cause for these psychiatric illnesses. In clinical depression, there is a paucity of the neurotransmitters serotonin and norepinephrine. People are born with varying levels of these neurotransmitters; some go through life not knowing anything better than a Dysthymic Disorder, or a low-grade depression. In others the stress of

dealing with the death of a loved one, divorce, financial crisis, or a long winter with reduced sunlight hours (which in turn decreases the manufacture of these neurotransmitters) there is a clinical depression which can be successfully treated with short-term anti-depressants. In the last third an earth-shattering event, unmasks as it were, the deficiency of the neurotransmitters and plunges the person into the depths of depression and these are generally the cases where there is suicidal ideation.

There is unanimity about the one sin that Allah will not forgive: that being shirk or the sin of association of any entity with God. In Surah Luqman (31:13) "Join not in worship (others) with Allah for false worship is the highest wrong doing".

If the Quran and Sunnah are taken contextually though, one learns that there is a very wide margin wherein the Grace of God comes in. On the Day of Judgement our sins and good deeds will be weighed and the scale that is heavier will win, but aside from the sin of shirk which is definite cause for damnation, all others are subservient to His Grace and ultimate pardon. In Az-Zumar (39:53) "Oh my servants that have transgressed against their own souls, despair not of the Mercy of Allah, for Allah forgives all sins and He is oft Forgiving Most Merciful".

The degree of psychosis varies in the patient with Major Depression and within the same patient also there is a wavering of the intensity of the deranged thought process. A concept applied to psychiatrically ill patients is that of the "lucid interval". In this the patient has a greater than usual grasp of his mental faculties. The serotonin and norepinephrine levels at a particular time are obviously well known to Allah for the Quran states that not a leaf moves without His express will. When the

levels of the neurotransmitters have bottomed out and the patient sees nothing but blackness and despair and commits suicide, it is highly unlikely that that action will be held in the scale against them on the Day of Judgement. In Surah Nisa (4:40) the Quran says, "God is never unjust in the least degree. If there is any good He doubles it and gives from His own presence a great reward."

Surah Al-Mulk (67:14) "Should He not knows, He that created? And He is the one that understands the finest mysteries and is well acquainted with them". In His Knowledge of these finest mysteries is the knowledge of the level of serotonin and norepinephrine in each individual and that even severe Major Depression is treatable with a variety of chemical and procedural treatments. Especially so in the 21st century, there are so many effective treatments that most patients can be returned to quite a functional state. Let us imagine for a minute that Allah had made the sin of suicide contingent upon the medical condition of the patient. Most certainly there would be abuse of this condition, instead of the fear of Hell stopping a patient at that last microsecond when his life could take an irrevocable course.

So in terms of the survivors feeling pain and embarrassment one can only pray for the soul of the departed for it is for Allah to judge the severity of the depression and the degree of departure of the mental faculties at the time of death. And as the Hadith says, if we have good expectations of Allah, good is likely to result, and dua is extremely pleasing to God, especially when supplication is with heart, soul and sadness.

In Surah Baqra (2:286) the Quran states:" On no soul does God place a burden greater than it can bear" and the Hadith exhorts us to not just make dua, but to also make an effort that is *Dua* and *Dawa* both. This Muslim belief is the redeeming factor in treating Muslim patients, for not just depression, but other disease too. It appears that Muslims have internalised this tenet of our belief system, as opposed to some evangelical Christians and Jehovah's Witnesses who come to see a doctor only to defeat their treatment plan by refusing it and saying that they will "pray about it". The only problem that remains really in the case of suicidal depression is its identification. For an axiom in Medicine is that half the treatment is the recognition of the disease state. Depressed mood, irritability, fatigue, anaerobia, reduced libido, anxiety and sleep difficulty are some of the symptoms, and in most cases that commit suicide, there is usually mention of the plan or intent to a friend or relative. These conversations must be taken seriously, for aggressive treatment can lead to complete return to function. And needless to say a life, and in this sad case, three lives could have been saved.

Another very important concept to grasp is that mental illness is not a moral weakness or a character failure on the part of the patient. Major depression and the deficiency of serotonin and norepinephrine are as much a disease as diabetes where there is a quantitative or qualitative lack of insulin. Just as a patient's sudden and excessive weight gain can cause the unmasking of an insulin resistant state and cause frank diabetes, similarly a life-altering event can be the straw that broke the proverbial camel's back and a depression is unmasked. Sadly since depression deals

with the emotional state of the patient is erroneously held liable for it, when in actuality he is entirely innocent of all such societal charge and stigma.

Completed suicide

Suicide has been defined by the WHO as: "..an act with a fatal outcome which the deceased, with the knowledge and expectation of a fatal outcome, had himself planned and carried out with the object of bringing about the changes desired by the deceased," (Retterstol, 1993,p2). To a large extent- as the introductory chapter has indicated- suicide is judicially rather than scientifically defined. The Centre for Disease Control (1998) has developed Operational Criteria for the Determination of Suicide (OCDS) to assist coroners and medical examiners in certification of death. The elements designated necessary for certification of suicide include that:

1. Outcome must be death due to injuries, poisoning or suffocation;
2. It must be self-inflicted;
3. It must be intentional;

Although the criteria used to pass a verdict of suicide vary according to the country (Kelleher *et al*., 1996) from a psychological perspective, the intent of the suicide victim is the most important consideration. The definition above emphasises the importance of intent in describing the person's 'expectation' that death will result from their action and that this was their 'object' or aim. The methodological difficulty in establishing intent in the case of suicide is that it is done so retrospectively on the basis of death-scene evidence and information obtained from people rather than the dead person (Bille-Brahe.1998b).

Paracetamol poisoning has become a particularly popular method of self-poisoning among adolescents (Hawton and Fagg, 1992) and Gazzard, Davis & Spooner *et al.,* (1976) have reported that many are unaware of its lethality. A large proportion of young suicides in the United States employ lethal methods such as guns because their availability. In many ways these cases were more similar to suicide attempts with low intent, than suicides. This is a particularly important feature of young male suicides, where the availability of a lethal method couples with an impulsive reaction to an acute stressor, can lead to death in the absence of strong suicidal intent (Brent *et al*., 1993b).

To further complicate classification, a person's intent does not necessarily remain constant or unchanging throughout a suicidal episode. Suicidal behaviour involves choice and the individual as a rule retains the capacity to change their behavioural sequence throughout their action (Kelleher, 1998). A person's intent may fluctuate between ambivalence and high suicidal intent. Only the person will decide whether and at what point they will couple action with intention and choose to self-harm. It is difficult to ascertain the final intention of the person who dies by suicide if the method may have chosen is so immediate or lethal that it does not afford them the opportunity to change their behaviour in accordance with their intent. It is important to note that while OCDS (Centre for Disease Control, 1998) employs intent as one of its three criteria in the certification of suicide, it does not take level of intent into consideration. Instead suicidal intent is treated as a categorical variable. The victim is classified as having either some minimal level of intent or not intent.

Non-fatal suicidal behaviour

Acts of non-fatal self-harm are commonly referred to attempted suicide but are treated both clinically and in research as a heterogeneous group. Many of these cases of suicidal behaviour fall between categories, as they cannot be classified as either suicide or as attempted suicide. For instance, a majority of hospital-admitted non-fatal acts of self-harm are not strictly attempts at suicide (Arensman, 1997). Psychiatric review may indicate that they involve low suicide intent, with little preparation or planning. In most cases, people convey ambivalence, wanting to both live and die at the same time (Bille-Brahe, 1998; Williams, 1997). The following definition of attempted suicide includes two broad types of non-fatal suicidal behaviour. Attempted suicide compromises situations in which a person has displayed actual or apparent life-threatening behaviour with the purpose of putting his or her life at risk or of giving the appearance of such a purpose, but which has not resulted in death (Retterstol, 1993, p3). The definition embraces cases where people self-harm because they want to put their lives at risk and cases in which people self-harm to communicate the intention to engage in life-threatening behaviour. Similarly in their nomenclature, O' Carroll *et al*., (1996) distinguish between suicidal act- which they use to describe behaviour motivated by the intent to die and instrumental suicide-related behaviour where the person has no suicidal intent but wants to use the appearance or idea of suicide to achieve some other aim, including a cry for help or revenge.

To circumvent the problem of suicidal intent, the term Para suicide (Kreitman, 1977; Kreitman & Foster, 1969) was coined to designate all non-fatal, deliberate acts of self-harm that 'mimic' or 'simulate' suicide. Para suicide is now used as an umbrella term referring to all non-fatal suicidal behaviour, without any prior assumption regarding intent. Para suicide is defined as: "An act with nonfatal outcome in which an individual deliberately initiates as non-habitual behaviour, that without intervention from others will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognise dosage and which is aimed at realising changes that the person desires via the actual or expected physical consequences" (Platt, Bille-Brahe, Kerkhof, Schmidtke *et al.,* 1992).

The use of Para suicide as a classification has however enabled international comparison studies such as the WHO/EURO Multicentre Study on Para suicide (Platt *et al*., 1992; Kerkhof, Schmidtke, Bille-Brahe, De Leo & Lonnqvist, 1994). Most cases of Para suicide attending hospital accident and emergency departments involve mild intent and are primarily carried out by people who are trying to change their circumstances in some way, rather than to achieve death (Kelleher, 1996). However, Para suicide also includes a smaller number of cases of high suicide intent, in which the motivation is to die, but where the attempt does not work. These cases are sometimes referred as 'failed suicides'.

Averting the issue of intent is as problematical as establishing intent. The term Para suicide is in danger of becoming meaningless as its usage has led to the study of heterogeneous groups with varying levels of intent and lethality (Leenaars *et*

al., 1997). Repetition studies partially redress this problem by trying to identify those cases within the parasuicde group at high risk of repeating the behaviour (Hjelmeland, 1996; Corcoran, Kelleher, Keeley, Byrne *et al.*, 1997; Arensman, 1997). These studies examine several variables including past suicidal behaviour, socio-demographic variables and psychiatric diagnosis, applying different weightings to each variable according to their predictive value.

Invalidated forms of suicidal behaviour

Other categories of suicidal behaviour such as a suicide threat – defined by "O" Carroll *et al* (1996) as any interpersonal action, verbal or nonverbal, stopping short of a directly self-harmful act, that a reasonable person would interpret as communicating or suggesting that a suicidal act or other suicide-related behaviour might occur in the near future" (p247); suicide gesture, which involve demonstrating the intention to self-harm but without completing the act; and self-mutilation, which involves habitual self-harm, do not fall neatly into any of the three classifications of suicidal behaviour as categorise by Beck, Rensik & Lettieri (1974). The definitions used lack consistency and there is no agreement as to whether these behaviours are related (Clark and Kerkhof, 1995).

Ideation

Suicidal ideation is exemplary of the problems encountered in defining suicidal behaviour. It has been defined as plans and wishes to attempt suicide (Beck, Kovacs & Weissman, 1979). In contrast O' Carroll *et al.*, (1996) define ideation as self-reported thoughts of engaging in suicide-related behaviour. This means that

ideation does not have to include suicidal intent. Suicidal ideation has been taken to incorporate a whole range of different thoughts including attitudes to suicidal behaviour e.g. considering the suicidal act as a potential coping option and contemplations involved in articulating plans and preparations for self-harm. The latter is ideation in its most elaborate form and in most suicide risk assessment instruments it is cored as high suicidal intent. To illustrate the potential qualitative distinctions in ideation, it has also been defined as "having thoughts ideas and intentions about suicide" (Bagley, 1975,p201).

The issue of intention is central to the relationship between thought and action. There is debate over whether a person is manifesting suicidal ideation when they view death as a viable solution to their problem but deny suicidal intent (Clark and Kerkhof, 1995). King (1997) insists that suicidal ideation only be used to describe "meaningful suicidal thoughts" (p64) where there is at least a minimal or nonzero level of intent to act in accordance with one's thoughts. Retterstol (1993) has defined suicidal thoughts as "behaviour that can be directly observed where the person concerned states that he or she is thinking about putting an end to his or her life. The category of suicidal thoughts includes thoughts, which are spontaneously reported to others, or which are confirmed when the person concerned asked" (p4). Somewhere in this process of consideration intention may be formulated. This is important because although ideation is not the same as action (Leenaars, De Leo, Diekstra *et al*., 1997), it has generally been subsumed under the rubric of suicidal behaviour where it implies intent. This is how ideation becomes an inherent part of premeditation and hence the

suicidal act. As suicidal ideation is more common than any other self-harming behaviour, it may be a more pragmatic focus for intervention efforts as a low risk, common factor. The United Nations has included it as one of its recommended targets in national suicide prevention strategies: that is to reduce the incidence and prevalence of suicidal ideation and behaviour among young people (Commonwealth Department of Health and Family Services, 1997, p21). However, the majority of suicidologists now agree that in particularly stressful circumstances, most people are likely to engage in ideation." It may be anticipated that everyone at intolerable and difficult moments in his or her life will entertain the idea that it might be best to put an end to it all," (Retterstol, 1993,p1).

One of the main problem is that ideation is subject to varying definition. Sometimes it is used exclusively to describe thoughts directed at self-harm, such as elaborate contemplation of action-relevant ideas or plans: 'I will buy paracetamol at the chemist on Monday and take them at home when the children have gone to school…' At other times it includes passive death wishes with no intent:' I wish I wasn't here'. A second problem is that like intent, ideation is covert and can only be measured indirectly. Often in clinical contexts people will deny ideation or provide inaccurate retrospective accounts of their thoughts.

Lewinsohn, Rohde & Seeley (1996) used a comprehensive set of operational definitions for different forms of suicidal ideation in the Oregon Adolescent Depression project. From a prospective study of 1, 700 14-18 year-olds, they distinguished between thoughts of death, wishing to be dead, thoughts of hurting

or killing themselves and a suicidal plan. As in the case of other classificatory systems of suicidal behaviour, the categories are not mutually exclusive. In fact each category of suicidal thought is largely subsumed under the category preceding it. They calculated the following pattern of lifetime prevalence rates:

Thoughts of death 16.3%, wishing to be dead 13.3%, thoughts of hurting or killing themselves 12.9% and suicidal plan 8.3%. The issue of conversion is of central importance if ideation is to be used as a target for primary prevention. Clark and Kerkhof (1994,) refer to a 'suicide ideation behaviour' barrier, crossed by only a minority of suicide ideators. Some models emphasising the process from mild to severe suicidality (Beskow, 1979, Firestone and Seiden, 1992) over-simplify the definition of suicidal behaviour and imply that there is a climax to a stage where suicide attempt or completion becomes almost inevitable (Kelleher, 1998). This assumption is flawed because many people who become actively suicidal never make an attempt. Alternatively, cases of impulsive suicidal behaviour- particularly in young people- do not usually involve a build-up in suicide intent. Hoberman and Garfinkel (1988) have found that in a sample of 229 youth suicides only 28% evidence plan to commit suicide and this was usually of brief duration. Definite preparation for death was apparent in only 8% of suicides.

Attitude and suicidal behaviour

Attitudes measured in the present study give insight into the ways people understand and evaluate suicidal behaviour. Attitudes have also been understood to guide or influence behaviour. There is an important association therefore between

behaviour and its evaluation, and attitude measurement assists in the exploration of these links. However, the relationship between attitudes and behaviour is based on more than a simple cause-and-effect, given that all suicidal behaviour is intentional. Nonetheless, the attitudes people hold in relation to suicidal behaviour may have an important bearing on their decision to engage.

One of the main applications of attitude measurement has been in the prediction of behaviour, based on the assumption that there exists some form of consistency between attitudes and behaviour. However the links between attitudes and behaviour are complex and indirect, as some of the studies reviewed shall indicate. Similarly, conversation from suicidal thought to suicidal action is an intricate process because numerous factors mediate and moderate the relationship. This in turn has implications for the development of measures to screen individuals at risk.

Defining attitude

Attitudes are useful in examining suicidal behaviour retrospectively, as they can provide a measure of individual differences between people with a history of self-harm and those without. They are also central to the prediction of suicide risk (Addis & Linehan, 1989; Etzersdorfer *et al*., 1998). For a long time attitudes have provided one of the most widely used measures of individual differences in psychology and particularly social psychology. Allport (1935) has described "…the keystone in the edifice of American social psychology" (p798). Because they enable

the study of differences between people and groups in their interpretation and evaluation of any given issue or 'attitude object'.

Researchers emphasise these components to different extents depending on their theoretical orientation. In suicidology, cognitive, affective and cognitive aspects of attitude are understood to play a particularly important role in suicidal behaviour. For example, empirical studies of attitudes have been carried out to distinguish non-suicidal from suicidal individuals by comparing their thoughts and feelings around a number of issues, including life and death (Neuringer & Lettieri, 1971); reasons for living (Linehan *et al.*, 1983); and hopelessness about the future (Beck *et al*, 1974; Beck *et al.*, 1979). The ratio between attitudes favouring life and attitudes favouring death is commonly used in scales measuring suicidal intent (Beck *et al.*, 1974) and also to identify people at risk of repeating a suicidal act.

Attitudes have a problematic relationship with behaviour (Kraus, 1995; LaPiere, 1934; Schuman and Johnson, 1976; Wicker, 1969). Efforts have been made to identify the particular features of attitudes that make them important for behaviour. For instance, Abelson (1988) chose to explore convictions because he anticipated that strongly held attitudes were most likely to be consistent with behaviour. He carried out a factor analysis of attitudes expressed in three surveys examining different issues (abortion; belief in God; and federal welfare) in order to isolate characteristics common to convictions measured on all three-survey topics. The following clusters of attitudinal characteristics emerged in all three studies, which have implications for suicidal behaviour:

Emotional commitment

It is an expression mainly of the nature and degree of feeling or affect that people hold towards an object. The emotional component of people's attitudes is a useful indicator of feeling states, which influence behaviour. The suicidal state is usually characterised by emotional distress, during which time attitudes to life, death, and continued existence make suicidal behaviour a more favourable option.

Ego preoccupation

This indicates the degree of importance a person attaches to an issue. When a person becomes suicidal and engages in suicidal ideation they are preoccupied with thoughts of escaping from, ending or changing their situation because it offers them a potential solution and this in itself may provide some relief.

Cognitive elaboration

When a person considers an issue at length, associations tend to develop with existent ideas, and thoughts are drawn upon which may become incorporated into networks of relevant attitudes. Serious suicidal intent is characterised by the attitudes that life is not worth living, that things will not get better, that death is the only attainable solution. Plans and preparations for self-harm are also part of this elaboration and follow from a suicidal person's tendency to act according to their feeling, as is the case with emotional commitment above.

These features may not be characteristic of all attitudes associated with suicidal behaviour in those who become suicidal. In many cases, people with suicidal ideation are ambivalent and do not hold strong attitudes in either direction. However these three factors elucidate characteristics of an attitude that may become implicated in suicidal ideation and intent. Like intent and ideation, these attitudinal characteristics do not remain constant. As the suicidal state is temporary, attitudes contributing to distress may cease to hold emotional significance or to preoccupy a person, once suicidal intent subsides. While these three features of conviction may be implicated in the aetiology of ideation in those who become suicidal, a number of other cognitions closely associated with attitudes also merit our attention.

People usually appraise or evaluate events by consulting existent attitudes and formulating new ones. Values are principles of behaviour acquired during socialisation, particularly at critical periods of early development. They are similar to attitudes in that they act as guides for behaviour but unlike convictions, values are not a type of attitude. Instead values provide a framework around which attitudes and goals become organised (Rober, 1985). Values are acquired by learning acceptable behaviours in order to function successfully in social collectives including peer groups, families, religious, academic and work institutions. Values may be more resilient to change, as new attitudes do not necessarily lead to new values. However values are less sensitive to individual differences, in that people with similar values do not necessarily have similar attitudes. For this reason attitudes lend themselves better to measurement.

Normative evaluation

Norms are behaviours that are assumed to characterise a group (Kelleher, 1997). Norms are like meta-attitudes as they are what a person perceives as being the generally held attitude toward a given behaviour. In turn, norms are influential in attitude formation particularly in relation to the acceptability and normality of suicidal behaviours. In the context of specific suicidal behaviours, norms set the parameters for 'normal' and 'abnormal' acts within sub cultural groups. Inn the case of euthanasia and self-poisoning for example, sub cultural norms can have the effect of legitimising them as valid options in certain circumstances (Boldt, 1987). Norms- like attitudes- is subjective and based on perceived standards of behaviour. They are also relatively fixed within networks of related attitudes and beliefs (Abelson, 1988). As in the case of convictions and strongly held attitudes, the greater the cognitive elaboration, the more influential the norm in behaviour.

Norms are not merely useful for understanding people's interpretation or evaluation of past suicidal behaviour. They are also thought to play an important role in the formation of intention and are therefore important for behaviour. According to the expectancy value model (Fishbein & Azjen, 1975) a person's '*subjective norm*' is their perception of the expectations of significant others, and together with the person's own attitudes towards a behaviour, norms are an important component of intention. It is for this reason that attitudes provide potential for the prediction of behaviour. While the expectancy value model seems to over-simplify the attitude-

behaviour relationship, by overlooking important personality and environmental variables, it does provide an explanation of behaviour on an attitudinal level.

Attribution

Attitudes are important in intention formation prior to behaviour, but they are also a product of the ways in which people evaluate and interpret past event. Attitudes also influence the process by which people attribute characteristics and causality to past behaviour in themselves and in others (Heider, 1958). Behaviour and experience also influence attribution. Causal attribution first involves observing the behaviour of another or reflecting on one's own behaviour, then inferring intention and attributing some internal motivating trait to the individual involved that is consistent with their behaviour.

There are systematic biases however in the way cause is attributed to behaviour and these often serve egocentric purposes (Hewstone, 1989). For example, people tend to attribute the cause of behaviour- their own and others'- in self-serving ways, so that negative outcomes are attributed to dispositions of others rather than themselves. Fundamental attribution error is one such bias (Jones & Nisbett, 1972) used to describe a tendency to over-emphasise situational factors in one's own behaviour and to over-emphasise dispositional characteristics in other people's behaviour.

Past behaviour of the 'attributor' is also important where attributional biases are concerned. In the context of suicidal behaviour, attributional biases may

operate differently when the person evaluating self-harm in another also has a history of self-harm. In such cases, attributing self-harm to negative internal traits; can reflect badly on the observer. In the case of someone with a history of suicidal ideation or attempts, attributing the same behaviour in others to negative dispositional characteristics may adversely impact upon self-harm.

These processes may allow differentiation between people with differing histories of suicidal behaviour. Attributions about suicidal behaviour have been found to vary considerably between suicide attempters, contemplators and non-attempters- as indicated in their attitudes (Limbacher & Domino, 1986; Minear & Brush, 1981). The way in which a person attributes cause to behaviour both in them and in others is therefore largely influenced by his own past behaviour and the type of behavioural involved.

The effect of affect on attitude: a word on 'psychache'

Emotion or affect is a defining feature of attitudes, as already explained people's feelings in relation to a particular 'object' indicate to some degree their orientation to it, and can be measured through attitudes. Of all aspects of attitude, emotion may be most effectively held in memory and is known to facilitate the retrieval of memories of associated experiences (Oatley and Jenkins, 1996) on which an attitude is based. This may go some way towards explaining the importance of past behaviour and experience on attitudes to suicidal behaviour.

Emotional states are an important characteristic of being suicidal (Canadian Task Force on Suicide, 1994). Psychological pain and discomfort is recognised as a defining affect in suicidal people and has been described as a common correlate of suicides. Shneidman (1996) describes "*psychache*" on the basis of case studies of suicide and suicide notes as:"…the pain of excessively felt shame, guilt, fear, anxiety, loneliness, angst… Suicide happens when the psychache is deemed unbearable and death is actively sought to stop the unceasing flow of painful consciousness. Suicide is a tragic drama in the mind." (Shneidman, 1996,p13). Shneidman argues that every case of suicide is an outcome of excessive psychache: "Everyone who commits suicide feels driven to it- indeed, feels that suicide is the only option left." (Shneidman, 1996,p13). This conceptualisation of the psychological state proceeding self-harm, illustrates how people's subjective awareness of their distress and their attitude to suicide as a desirable solution converge. It is difficult to see where emotional distress, normative evaluation and intention formulation begin and end. This is the 'substance' of suicidal ideation and it points up many of the models used to explain the attitudinal role in suicidal behaviour as being too mechanistic. "*Psychache*" might be as applicable to chronic suicidal behaviour as to impulsive suicides, in so far as suicidal states may occur over a long or short period of time. However it cannot be assumed that psychache manifest itself to the same extent in every case. For instance many acts of Para suicide in young people are precipitated by minor interpersonal difficulties and are more a result of intolerance and impulsivity than severe emotional torment.

The role of emotion is of particular concern not alone in the onset of suicidal ideation as indicated by Shneidman (1996) but also in its subsequent interpretation by the ideator. Strong emotions are understood to have both cognitive and behavioural effects (Oatley and Jenkins, 1996) as they alert people to their orientation to particular events and guide behavioural response. As emotions associated with a particular experience are more effectively held in memory, they are likely to continue to affect attitudes to this experience. In the context of the present study, if emotional pain or perturbation is involved in all suicidal behaviour including ideation, even in the absence of strong suicidal intent, then it is likely to impact upon attitudes to suicidal behaviour among people with an ideation history. This sustained effect of personal experience may lead to increased tolerance and reduced inhibition around suicidal behaviour (Limbacher & Domino, 1986; Linehan *et al*., 1983).

Attitudes measurement in suicidology

Durkheim (1897/1952) maintained that social reality exists independently of an individual's reality and that social causes put particular groups of people at risk of suicide. While his theory of suicidal behaviour accommodates the role of attitudes, it refutes both the notion of individual intention and more importantly, the factors involved in an individual's decision to self-harm or suicides, which are fundamental to suicidal behaviour.

A century later in sociology, Boldt (1982) examined individual and group interpretation of suicide simultaneously. She used individuals' descriptions of sub

cultural 'norms' of suicidal behaviour as units of analysis, to focus on the standards of behaviour that people designate to within the 'normal range'. Boldt argues that perceived social attitudes (normative evaluations) of suicide, together with respondents' own meanings of act, vary across subcultures. She proposes that increases in youth suicide are due to specifically to greater acceptance of suicide within youth subculture.

Boldt (1982) gives a coherent explanation of the attitudinal basis of tolerance of suicide in youth subculture. For example she found that youth views about the 'wrongness' of suicide were based on secular-ethical criteria while those of parents were based on religious-moral reasons. However, she does not explore how specific attitudes relate directly to suicidal behaviour because she does not measure suicidal history in respondents. Her work- like that of Durkheim (1897/1952)- does not distinguish between those who engage in suicidal behaviour and those whose attitudes are merely accepting of the idea of suicide.

Inglehart (1997) has examined attitudinal trends internationally, by comparing findings from the World Values Surveys (World Values Study Group, 1981, 1990). These surveys are based theoretically on intergenerational value change. Like Boldt, (1982, 1987) Inglehart focuses on intergenerational factors in attitude change and attributes a large part of attitude change to generation effects. He also argues that societies in which value changes have been greatest are those in which the largest intergenerational value differences are found.

In order to study generational effects on attitudes to suicidal behaviour, longitudinal attitude surveys can be used to clarify trends in the tolerance of suicidal behaviour. Sixteen of the twenty centuries sampled in the World Values Surveys (World Values Study Group, 1981, 1990) including Ireland, showed less agreement in the 1990 survey with the item "*Suicide is never justified*". In other words, tolerance of suicidal appeared to increase between surveys for the majority of countries sampled

A second important factor in attitude change is the cohort effect. Inglehart (1997) argues that socialisation during the formative years plays an equally important role in the aetiology of suicidal behaviour as does response to the current environment. The conditions that shape early, pre-adult development set in motion a process of gradual adjustment through the acquisition of values. For this reason, attitudes measured in people during early socialisation may serve useful predictors of values and behaviours later in life (Bille- Brahe, 1998). This has important implications for the sample examined in the current thesis. Life-cycle effects are also important attitude variable because people demonstrate shifts in attitude as they age (Boldt, 1982; Inglehart, 1997). Attitudes change therefore occurs across time within individuals, within generations and between generations.

Studies indicate that tolerance of suicide within youth subculture is conveyed attitudinally and helps to counteract inhibition around suicidal behaviour during stressful situations: "Cultural and sub cultural normative evaluations of suicide and death represent important variables in an individual's decision to choose the

suicidal option," (Boldt, 1982, p145). Disinheriting on an attitudinal level among young people may in part explain the rise in suicide rates among this group. Suicide has become more accessible because it is culturally inculcated in behavioural repertoires: Hence, in a crisis, the act is more available to them (Boldt, 1982, p154). Attitudinal factors therefore have clinical implications for the suicidal person. The likelihood that a pre-suicidal individual will proceed to attempt or commit suicide will vary as a function of their culture milieu (Shaffer, 1994, p164). These attitudinal factors may determine conversion; specifically the progression from thought (ideation) to action (self-harm) and Inglehart (1997) is that they do not examine any correlating relationships between attitudes and suicidal behaviour within their samples.

Community attitudes to suicide

During the 1969's while the suicide prevention movement gained public attention in America, there was an increasing focus on the wider setting of suicidal behaviour. Research on attitudes to suicide up to the end of the 1960's was nevertheless largely neglected. At this time, the usefulness of attitudes as a predictor of behaviour was under severe scrutiny. There was growing awareness of inconsistency between stated attitudes and overt behaviour (Kraus, 1995). Ginsburg (1971) noted that in the Bibliography on Suicide and Suicide Prevention (Farberow, 1969) only one of the 3,469 references addressed attitudes to suicide. At the time that suicidology was emerging as a discipline, the status of attitude as a predictor of behaviour was a precarious one.

Ginsburg (1971) pioneered the exploration of public conceptualisation of suicidal behaviour in what is known as the community study. This form of study emerged during the movement known as community psychology in the 1960's, which emphasised the need to focus on the causes of problematic behaviour at a level that was meaningful and relevant, using methods, suited to complex social contexts. Other community studies and prevalence studies followed throughout the 1970's and 1980's (Kalish, Reynolds & Farberow, 1974; Sale, Williams, Clark & Mills, 1975; Ramsay & Bagley, 1985; Ginn, Range & Hailey, 1988). Ginsburg (1971) examined community conceptualisation of suicidal behaviour at three levels:

1. Attitudes to the notion of suicide
2. Attitudes to people known to have attempted or committed suicide
3. Degree of familiarity with suicidal behaviours

The aim was to clarify both the structure and salient features of public attitudes to suicidal behaviour and the way in which causes and motives for suicidal behaviour are attributed. These issues have also been examined in community settings in other studies (Kalish *et al*., 1974; Sale *et al*., 1975).

Motivation, intent and lethality

An important aim of Ginsburg's (1971) study was to examine the reasons and motivations to which people attribute suicidal behaviour. Open-ended questions

were used and content analysis was performed to systematically decompose all responses into their smallest meaningful units. A majority (54%) of respondents cited intrapersonal factors such as mood and depression. Fourteen per cent referred to illness and non-social factors outside of the person. Twelve per cent cited interpersonal factors and societal factors were also cited by 12%.

Content analysis of responses revealed that suicide was conceived of as something that happens to a person, rather than the outcome of an intentional action. "Neither as an intended end nor as a means by which an intended end was to be achieved" (Ginsburg, 1971, p202). Although it was acknowledged that suicide might result from the victim's own behaviour and be their own fault, a minority felt that suicide was intentional act.

Consistent with the findings on intent, the majority of respondents in Ginsburg's study felt that most people who say they will kill themselves actually don't. A majority also expressed the view that most people who do not attempt suicide don't really want to die.

Suicide as a right

In terms of the right to commit suicide, a majority of Ginsburg's (1971) sample (56%) stated that people do not usually have the right to take their own lives. 34% stated that a person does have the right and they cited 'self-determinism' as a reason.

Mental illness

'Understandability' of a person's behaviour largely determines whether evaluations made by others are positive or negative and also whether behaviour becomes classified as normal or psychotic (Nunnally, 1961). As over half of Gindburg's (1971) respondents felt that a person who commits suicide is temporarily or long term mentally disturbed, it was anticipated that there would be a lack of comprehension in relation to instances of known suicides. This was found to be the case with over half (52%) the respondents saying that the suicidal action had shocked, puzzled or surprised them to such an extent that the action must have been incomprehensible to them. Almost one-third (31%) argued that suicide victims were not mentally ill and only 7% felt they were emotionally rather than mentally disturbed. In addition considerably fewer respondents (37%) found the action understandable. The implication is that lack of understanding is associated with attributing suicide to mental illness.

Kalish *et al.* (1974) also found that intrapersonal factors were the most commonly cited reasons for suicide, with approximately equal respondents envisaging suicide as an effect of stress and frustration, as of mental illness. One-third of all men and women in their sample believed that mental illness specifically, is the main reason for suicide and that the type of people most likely to commit suicide are either 'crazy' or 'mentally ill'. External factors including interpersonal, financial and professional issues were cited significantly less.

Age and education were inversely related (Kalish *et al.*, 1974). Older men were considerably more likely than younger men to regard mental or physical illness as a cause for suicide rather than love or psychological stress. This difference was not apparent between older and younger women. College graduates were less likely to describe people as mentally ill and more likely to cite extreme stress as a cause. Although attributing causes to intrapersonal factors was no less common among the young and educated, to particular form of intrapersonal difficulty differed.

The findings from both studies are consistent. Respondents most commonly attributed suicide to problems within the individual and in particular mental illness. Younger and more educated respondents were found to impute a broader variety of intrapersonal factors for suicide. They were also more inclined than older respondents to cite interpersonal factors as a cause of suicide.

Attitude: the effect of experience

Attitudes to the concept of suicide may differ greatly from attitudes to people known to the respondents who have attempted suicide or died by suicide. As Diekstra & Kerkhof (1988) have explained, attitudes to suicide are referent-specific. There is evidence of the familiarity effect in Ginsburg's (1971) study but unfortunately no attempt is made to explain the impact of experience on attitudes theoretically. For example intrapersonal reasons were cited less than half as often in cases known to the respondent, decreasing from 58.6% to 25.7%. Interpersonal reasons in contrast, were cited considerably more frequently in the specific cases

increasing from almost 10% to almost 28%. External reasons including illness and loss of money were also cited more frequently, increasing from almost 14% to almost 24%. There was greater reference to concrete reasons in known cases, including interpersonal and external factors and reduced emphasis on mood.

Unfortunately, Ginsburg (1971) fails to offer any theoretical basis for these attitudinal differences. It may be that attitudes of respondents who knew suicide attempters or victims were more informed because they had more specific knowledge on which they could be based or they may have been exhibiting a form of attributional bias that served to defend their friend or relative. Ginsburg (1971) also omits any information about the type of relationship between respondents and attempters or victims. Attitude differences might have correlated positively with the strength or closeness of relationship. The effect of emotional involvement could have been 'controlled for' by using case histories or vignettes with respondents and comparing responses between those with and those without acquaintances who had committed suicide.

Views on the right to take one's life in Ginsburg's (1971) study did not differ significantly between hypothetical cases concerning a stranger and hypothetical cases concerning a real acquaintance, although there was a slight shift towards disagreement (a *'no' or 'depends'* response) in the latter case. The majority of people did not feel that an individual had the right in either case. Attitudes concerning rights may be unaffected by acquaintance with a suicide attempter.

Familiarity through own or another's behaviour

Although attitudes to suicide in general differ from attitudes to known cases, Ginsburg (1971) argues that familiarity with suicide in others cannot be described as a high suicide risk. Instead Ginsburg (1971) observes of his sample that: "suicide exists as a potential coping alternative for a large proportion of adults in the sampled area" (p205). The majority of his sample was personally familiar with suicidal behaviour in others. As only a small proportion of people ever engage in self-harm, he postulates that familiarity in itself is not a sufficient condition for suicidal behaviour. It is reasonable to assume that the effect of personal history of suicidal behaviour on attitudes would be more important than experience of suicidal behaviour in others.

Tolerance and rates

Although attitudes and values may be the forerunners of orientation, it would be simplistic to assume that communities, in which prevailing attitudes reflects acceptance and tolerance of suicidal behaviour, return higher rates of self-harm. The context in which suicidal behaviour occurs is considerably more complex. Kerkhof and Nathawat (1989) found that permissive and accepting attitudes toward suicide did not correlate positively with suicidal behaviour. They argue that in a culture where attitudes to suicide are tolerant, people are more likely to discuss suicidal feelings with peers. This increases the chance of identifying and responding to suicidal warnings and ultimately the prevention of suicide attempts." High risk" areas may in

contrast be least well equipped to deal with suicidal behaviour. With poorer educational and economic resources, they may be more severely disrupted by suicidal behaviour and negative attitudes may develop as a result (Kelleher, 1997). Sale *et al.* (1975) found that personal contact with attempted as distinct from completed suicide relates to intolerance of suicidal behaviour. Those of their sample who had greater contact with attempted suicide held more hostile attitudes to suicidal behaviour and tended to evaluate it as more manipulative and less due to mental illness. The high-risk area sample had significantly more hostile attitudes to suicidal behaviour generally even when socio-economic status and age were controlled for. This is probably explained by greater contact with attempted suicide in the high-risk sample.

Cry for help

Sale *et al.* (1975) found that people with acquaintance who had attempted rather than committed suicide demonstrate more intolerant attitudes to suicidal behaviour. More specifically they found that sympathetic attitudes to suicidal behaviour correlate positively with the belief that it is motivated by high intent and of high actual or potential morality. Negative attitudes were also associated with the belief that suicidal behaviour is manipulative. They found no relationship between tolerance and the belief that mental illness is a reason for suicidal behaviour.

Kalish *et al.* (1974) found that attitudes to suicide threats without apparent intent differed according to educational differences but not age or sex differences. The least educated regarded suicide threats as not serious and expressed anger towards

them Attempts were interpreted as attention seeking, whether motives were understood to help-seeking or game-playing.

Attitude-behaviour relationship

The relationship between attitudes and behaviour is problematical, yet one of the major premises regarding attitudes is that they inform behaviour "Society may affect an individual's likelihood of committing or attempting suicide through the attitudes it inculcates towards it," (Dickstra & Kerkhof, 1988, p91). Measuring attitudes to suicidal behaviour is one way of examining the broader social background or context against which these behaviours occurs. The links between attitudes and behaviour are complex however as theory and research indicates and the attitude-behaviour relationship does not organise itself in a strictly linear way (Schuman & Johnson, 1976). For instance, tolerance of suicidal behaviour within a group does not necessarily lead to higher rates of suicidal behaviour within that group". There is probably no clear link between societal tolerance towards suicide and actual suicidal behaviour," (Kerkhof & Nathawat, 1989,p157).

In their comparative study of the incidence of and attitudes towards suicidal behaviour among Indian and Dutch students, Kerkhof and Nathawat (1989) found that while attitudes were considerably more condemnatory and restrictive in Indian student, rates of suicidal ideation and attempt were much higher than in Dutch students. They attributed this 'anomalous' finding to the fact that tolerant attitudes to

suicidal behaviour may encourage the reporting of suicidal thoughts and help-seeking behaviour.

One of the main reasons why the relationship between attitudes and suicidal behaviour is complex may be because it is reciprocal: while studies indicate that attitudes affect suicide risk (Boldt, 1982; Diekstra and Kerkhof, 1988; Kerkhof & Nathawat, 1989) there is also evidence to suggest that suicidal behaviour impacts on attitudes (Limbacher and Domino, 1986). Once a person has engaged in some form of suicidal thought or action, their experience and knowledge are likely to lead to change in their evaluation of attitudes towards suicidal behaviour.

Changes in attitudes and suicide rates

Suicidal behaviour is sensitive to the norms, values and meaning operating within a context, as the introductory chapter has indicated. Changes in these meanings may be partly responsible for fluctuations in the incidence of suicidal behaviour. More specifically, changes in 'sub cultural attitudes' may partly explain trends in suicidal behaviour (Kessel, 1966, Evans, 1967). There has been increasing acceptability of self-poisoning and self-harm as coping mechanisms in response to interpersonal stress. On this basis, the development of primary prevention through the alteration of sub cultural attitudes to suicidal behaviour has been sought internationally in efforts to prevent self-harm (Hawton, 1994; Shaffer, 1994; Finnish National Research and Development centre for Welfare and Health, 1993; Commonwealth Department of Health and Family Services, 1997).

Three important factors are responsible for making the attitude-behaviour relationship a tenuous one. Firstly, attitudes may be transient and undeveloped or they may be more permanent convictions (Abelson, 1988) arising from elaborate attributional processes. Attitudes may for example be embedded within strong religious or moral belief systems or explanations about mental illness. Attitudes to suicidal behaviour are also subject to considerable change throughout the adult lifespan (Boldt, 1982). Secondly, as high impulsivity is an important feature of suicidal behaviour in young populations without a psychiatric diagnosis (Brent *et al.*, 1993b) the effects of attitude on suicidal behaviour also vary. Shaffer *et al.*, (1988) argue in a study of high school students that during critical episodes, behaviour may not reflect attitudes to suicide: "... there is no certainty that a given attitude will predict a related behaviour in a time of crisis," (p681). Thirdly, attitudes towards suicide vary within individuals according to the terms of reference used. Attitudes to suicide differ depending on whether it is examined in abstract terms or hypothesised in relation to the respondent's own family, friends or self: ".. one should rather speak of attitudes towards suicides, since individuals appear to have different feelings, cognitions and actions tendencies with regard to suicide as an act (to be) committed by themselves, the person most near and dear to them and people in general," (Diekstra and Kerkhof, 1988, p26).

Attitude-Ideation relationship

Suicidal ideation may have a distinctly different relationship with attitudes than other forms of suicidal behaviour. If someone is considering suicide habitually as

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an option, his or her attitudes may become more tolerant of suicidal ideation, without developing tolerance toward overt suicidal behaviour. Dissonance only occurs when there is conflict between thoughts or behaviours that correspond to one another and in the case of ideation this may not apply. When a person considers suicide as an option, it may not have any bearing on their attitudes to suicide itself.

Theory and research suggest that attitudes may be more directly involved in suicidal ideation than suicidal actions. In fact ideation may mediate the relationship between attitudes and overt suicidal behaviour. In a comparative study of attitudes to suicide among Indian and Austrian medical students (Etzersdorfer *et al.*, 1998) responses to a question regarding suicidal ideation were found to be more strongly associated with distinct attitude patterns than were responses to a question regarding previous suicide attempts. Attitudes in Indian sample were more restrictive and focussed on a disease model while those expressed in Vienna tended to be more permissive and centred around a rational, cognitive model. Although the prevalence of past suicide attempts reported by each sample was equal, only 16.8% of the Indian sample reported previous suicidal ideation, while the corresponding Viennese rate was 51.5%. There are two explanations for the discrepant ideation rates reported:

1. Attitudes to suicidal behaviour may facilitate or restrict people's readiness to *admit* to entertaining suicidal thoughts

2. Attitudes to suicidal behaviour may impede the development of ideation but not suicide attempts

While ideation may intervene in the relation between attitudes and behaviour it does not seem to fully bridge the gap. As only a small proportion of ideators engage in self-harm (Gunnell, 1994; Swedish National Council for Suicide Prevention, 1995) ideation on its own is not a sufficient precedent of suicidal behaviour. Paykel *et al* (1974) describe the nature of the suicidal ideation-action relationship:"...the feelings may appear in part to represent minor 'degrees' of what may culminate in the suicidal acts, but to some extent there are different. A whole host of factors, such as cultural prohibitions, personality, impulse control, and social support may intervene between the suicidal thought and the act, and also determine the quality of the act," (p468).

While findings indicate a likely attitudinal basis to suicidal behaviour, it is clearly insufficient and needs to be examined in conjunction with other predisposing factors to more accurately predict those who convert from thought to action.

Cross-cultural studies of attitudes

Research comparing different population sample also began to burgeon during the 1970's. The specific structure of attitudes was compared between different cultural and sub cultural groups (different nationalities, age groups and ethnic groups). Domino et al., (1982) systematically measured attitudes to suicidal behaviour in a standardised way, across cultures and contexts (Table-4.1). They developed the Suicide Opinion Questionnaire (SOQ) as a measuring instrument for this purpose. Several factor analytic procedures carried out on the scale since its development, have served to pinpoint salient features of people's attitudes to suicidal behaviour.

Domino *et al.* (1989) argue that attitudes through interaction with other variables are determinants of behaviour. "Social scientists have of course always considered attitudes to be central in importance and, in interaction with other variables, to guide behaviour" (Domino, MacGregor & Hnnah, 1989; p351-52). However co-relational analyses between respondents' attitudes and past suicidal behaviour are only carried out in a minority of the studies that use the SOQ (Domino & Takahashi, 1991; and US adults (Domino & Su, 1995), a history of ideation was found to differentiate respondents' attitudes independently of nationality. Ideators of both nationalities agreed significantly more with the attitude that people have a right to die and that suicidal behaviour is normal.

Limbacher & Domino (1986) designed a study using the SOQ specifically to differentiate suicide attempters from contemplators and non-attempters. Suicide attempters were less likely than non-attempters to believe that attempters are mentally ill. Non-attempters were more inclined to believe that attempters do not really want to die while attempters were more inclined to believe that attempters intend to commit suicide. The study indicates that attitudes are related to both suicidal ideation and action in the same person.

The fact that personal history of suicidal behaviour is related to attitudes to suicide is important in light of findings that past suicidal behaviour is one of the most important predictors of future suicidal behaviour (Brent *et al.*, 1993b). The studies reviewed above indicate that attitudes are highly differentiated: Attitudes to the concept of suicidal behaviour vary from attitudes to people who have attempted or

committed suicide. Attitudes to suicide in a stranger also differ from attitudes to a hypothetical suicide in someone known to the respondent (Ginsburg, 1971). Attitudes to the intent of the suicidal person also differ depending on whether the person is known to the respondent. Attitudes also vary in relation to the aetiology of suicidal behaviour. It is sometimes attributed to intrapersonal reasons such as mental illness, stress or personality factors and at other times to interpersonal causes such as relationship difficulties and relationship break-up.

The importance of studies using SOQ is that they demonstrate that respondents' past suicidal behaviour is strongly associated with their attitudes to suicide, even in respondents of different cultural backgrounds. Experience of suicidal behaviour therefore- both personal experience and experience of it in known others- has an important association with attitudes to suicide. The study of Limbacher and Domino (1986) establishes that effects of experience on attitudes depend on whether it is a person's own experience or that of an acquaintance. Attitudes to suicide do not differ significantly between people in their study with a history of suicidal behaviour in friends or family and those without. However in the same sample, attitudes were found to differ as a function of suicidal behaviour in the respondents themselves.

In order to understand more fully the relationships between attitudes and behaviour, and to enhance the predictive power of attitudes for behaviour, efforts have been made to develop conceptual frameworks. A number of models of the attitude-behaviour relationship have emerged from these and some of them will now be examined.

Attitudinal models of suicidal behaviour

The importance of the relationship between past suicidal behaviour and subsequent attitudes is central to the present study. Attitudes to suicidal behaviour obviously vary between a respondent who has no personal experience of suicidal behaviour and one who does. Abelson (1988) interprets attitudes and beliefs in terms of a model of 'possession'. He argues that taking possession of an attitude is affected by the extent of commitment to the attitude, suffering for the attitude and explaining the attitude. In the context of suicidal behaviour it is difficult to apply this framework, as it relates more to extreme convictions than to attitudinal trends.

Alternatively, attitude centrality- a concept developed by Krosnik (1986) hinges on the degree of linkage between a person and the attitude object. It focuses on the impact of an attitude object (in the present thesis suicidal behaviour) on the altitudinal components of cognition, affect, behaviour and evaluation as outlined earlier. Greater linkage between attitude and object bring about the following effects:

1. Stronger affective reactions;
2. Greater influence on information processing e.g. attributional style;
3. More support from knowledge gained through experience;
4. Greater consistency with other attitudes and values;

It follows that attitudes to suicide are likely to be more 'central' in a person who has a history of suicidal ideation or action. Fazio (1988) argues along similar lines using the notion of attitude 'accessibility' to describe the importance an attitude holds for a respondent. Accessibility is measured in terms of the strength of links between the

attitude object and its evaluation. According to Fazio's model, attitudes based on personal experience may be more accessible from memory. This would explain the superior predictive power of direct rather than indirect experience of suicidal behaviour as indicated in Limbacher & Domino's (1986) study. Fazio (1988) argues that with each contact with the attitude object and each time the attitude is accessed from memory, these links are activated. Evaluation of the attitude object becomes clearer, easier to access and therefore correlates more strongly with behaviour. For example, when person is confronted with a crisis, the retrieval of relevant attitudes from memory depends on their accessibility. This is largely determined by the strength of association between the attitude object, such as the notion of suicide, and the person's evaluation of it. If the association between both is strong, attitude-congruent behaviour is more likely.

It appears that more proximal links between attitudes and behaviour must be examined in order to explicate the thought-action relationship. Intention has already been described as a defining feature of all suicidal behaviour and it is used in the assessment of suicide lethality and risk. The Suicide Intent Scale (Beck, Schuyler & Herman, 1974) examines thoughts that precede the self-harming act, expectations of fatality and understanding the lethality of the method chosen. As intention precedes behaviour, a logical course of action would be to examine attitudes related to intention.

Research has begun to examine attitudes relevant to people's own intentions to behave. Models known collectively as Expectancy Value models (Ajzen,

1988, 1991; Fishbein & Ajzen, 1975) have been developed to describe the relationship between attitudes and behaviours in a more comprehensive way. According to these models, attitudes such as those examined in the present study are mediated by other cognitions to bring about behaviour. The earliest of these models is the "Theory of Reasoned Action" which describes the cognitive processes that precede voluntary behaviour. This model is represented in the following equation:

Behaviour = Behavioural Intention = (Ab) w1 + (SN)w2

(Where "Ab" is attitude to behaviour, SN is a person's subjective norm and the weights w1 and w2 vary according to person, behaviour and situation).

According to the above model, the main predictor of behaviour is the person's intention. The formation of intention is understood to involve consideration of one's attitude towards one's own behaviour i.e. orientation (Ab) and the importance attached to it (w1). The latter part of the equation is concerned with subjective norms (SN) consisting of beliefs about the extent to which significant others approve or disapprove of the behaviour, and also the importance attributed to other people's opinion of them (w2). The weights vary according to person, behaviour and situation. In some cases the subjective norm may be more important than a person's own attitude to behaviour, while in other cases the latter is paramount. According to this model therefore, attitudes preceding behaviour are important in the aetiology of that behaviour. At the same time the model accommodates the influence of the person's prior behaviour and experience on attitudes.

One of the main criticisms of the Expectancy value model is that intended action is not always feasible. For example in the absence of physical capacity or other resources, behaviour will not automatically follow from intention. This is particularly important in the case of suicidal behaviour, where serious suicidal intent may not coincide with the circumstances necessary to carry out the act of self-harm e.g. availability of method. The theory of Planned Behaviour (Ajzen, 1988, 1991) is a revised version of the Expectancy value model, which incorporates perceived behavioural control as a predictor variable. This is the perception one has of one's own ability to carry out the behaviour. In the case of impulsive suicidal behaviour due to the disinhibiting effect of drugs or alcohol, this added variable may be particularly important. It may also explain why suicide often occurs after a person starts to recover from clinical depression or before they reach its severest stage.

All of these models can be directly applied to suicidal behaviour. They illuminate the relationship between attitudes and behaviour and how attitudes to suicidal behaviour relate to emotions, experience, knowledge and orientation. Attitudes also inform the ideation process, in terms of consideration of the suicide option (attitude to the behaviour) and anticipation and evaluation of other people's responses (normative evaluation). The expectancy value models in particular highlight the important relationships between ideation and attitudes in the processes of intention formulation, planning and self-harm. Most importantly these models suggest ways in which the predictive power of attitudes might be utilised by applying the knowledge obtained from links between suicidal thought and action. The models

also try to clarify the specific attitudes and characteristics that enable behaviour prediction. Ultimately the relationship between attitude and behaviour appears to be a reciprocal one.

The cognitive perspective: problem solving skills, conversion and stability

Psychopathology has provided one of the most pervasive explanatory frameworks for suicidal behaviour in the 20th century and has also had a significant influence on other theoretical approaches. The present chapter starts by examining some of these theories and their treatment of interpersonal and intrapersonal issues. The main focus will be on the cognitive perspective and how it applies to different forms of suicidal behaviour, particularly suicidal ideation. Preventive issues are explored in terms of some of the risk and protective factors as they relate to cognition. Models of a suicidal behaviour continuum are also examined in terms of their usefulness and limitations of preventions.

The understanding and treatment of suicidal behaviour have been varied and as a review of historical accounts indicates, it has received a range of societal response. In this century, the most pervasive response has arisen from an interpretation in mental illness terms, purporting that the suicidal the suicidal person is sick, and consequently irrational and out of touch with reality. Yet suicidal behaviour is rarely irrational (Kelleher, 1997) and mental illness- although important- is neither a necessary nor sufficient explanation of all suicidal behaviour. A proportion of suicides and a substantial proportion of parasuicides are not suffering

from diagnosable mental or psychological illness. One report of an empirical study of parasuicides presenting at hospital casualty found that a substantial minority of patients- both male and female –did not have a psychiatric diagnosis (Kelleher, 1997).

In addition, samples taken from hospital-admitted cases are inherently biased towards greater morbidity while there may be many cases not receiving medical attention that are less likely to have a diagnosable condition. Because clinical studies focus on a narrow population (Smith & Crawford, 1986) their findings are limited to correlates of psychiatric disorder.

In contrast as the preceding chapter indicates, the sociological treatment of suicide all but ignores individual factors. Taking the relative stability of suicide rates among groups as its point of departure, the main argument in the sociological model is that group and cultural factors determine the incidence of suicide. Makinen and Wasserman (1997) for example, report that the rates and ranking of suicide rates in European countries are relatively stable. According to the sociological model all people within any given cultural or socio-economic group are at equal risk. The model overlooks factors unique to the person such as personality and experience. Sociological studies fail in the prediction of suicide on an individual level (Maris, 1997). Although sociological models identify high-risk groups, such as young males, or people who are mentally ill, this level of analysis is insufficient as only a small number of people in these groups die by suicide. Individual differences such as personality, behavioural or coping factors determine whether a person who is

mentally ill or a member of a disadvantaged group will engage in suicidal behaviour, to say nothing of the people who cannot be so identified.

The medical and sociological models represent extremes of a range of theories of suicide, most of which emphasise two features of suicidal behaviour to different degrees:

1. **Intrapersonal features** suicidal behaviour as an act arising from problems within the individual related to biological factors, illness and personality or other features, relatively independent of social or cultural factors.
2. **Interpersonal features** suicidal behaviour in the context of cultural and social factors including attitudes, values, norms; or difficulties in relation to other people, including family, peers, authority figures and other relationships, that reflect a person's adjustment to their psychosocial context.

Three of these theories of suicide shall now be examined in more detail.

Psychoanalytic theory

The earliest theory of suicide in the 20th century was psychoanalytic. As part of the psychodynamic model, psychoanalysis is concerned with the interaction between motives and emotions. One common, erroneous assumption is that psychoanalytic theory focuses solely on unconscious processes within the individual. For instance, Freud (1922/1950) has explained suicidal behaviour in intrapsychic terms, as the outcome of a continual struggle between the life instincts Eros- the drive to pursue new experience- and the death instinct Thanatos- an aggressive and destructive drive. Similarly along intrapersonal lines, Menninger (1938) argued that

behaviour could be driven by unconscious motivation. Contrary to the sociological theory of suicide, Menninger argues that suicidal behaviour first occurs in the person's mind. However psychoanalytic theory has been applied to suicide from both intrapersonal and interpersonal perspectives (Freud, 1917/49, 1922/50; Jung, 1925; Menninger, 1938; Fenichel, 1945). Freud's theory of suicide is also largely interpersonal, explaining it as he does in terms of the inhibition of aggression, which turns inwards on the self. He attributes this anger turned inward to the incorporation of loss or rejection by a love object- usually in the form of a significant other. Psychoanalytic theory also emphasises the broader interpersonal context of the individual, in which a person's failure to reconcile their autonomy with affiliation can culminate in self-destruction (Bowman, 1998). Adler (1958) also argued along interpersonal lines that suicide occurs when a person feels inferior because of failing to establish satisfying links with others. Nevertheless, psychoanalytic theory in contrast with sociological theory takes intrapersonal factors as its point of departure and explores interpersonal difficulties only in terms of their effects on the self of the individual concerned.

Mental illness and coping

Suicidal behaviour has been based on the premise of underlying mental illness mainly because of the preponderance of psychopathology among suicide victims (Barraclough *et al*., 1974; Marttunen *et al*., 1991). Esquirol (1838) argued that suicidal behaviour was in itself sufficient evidence of psychopathology.

More recent theoreticians have in contrast asserted that all mental illness is a form of suicide (Firestones & Seiden, 1992). This intrapersonal perspective is better understood in the context of a suicidal process model, in which risk factors such as mental illness implicate a person in a process of increasing or decreasing potential for self-destruction. Applying this notion of a suicide continuum seems justifiable in terms of the incidence of suicidal behaviour in clinical populations with psychiatric diagnoses. For example, in the case of affective disorder and alcoholism, the lifetime risk of suicide is 15% while in the case of schizophrenia; the lifetime risk is 10-15% (Gelder, Gath & Mayou, 1989; Barraclough & Gill, 1996; Kelleher, 1996; Kelleher *et al.*, 1998). In contrast, rates in the general population are considerably lower and are calculated per 100,000. Suicidal ideation, suicidal plans and attempts are currently used as diagnostic criteria for Major Depressive Episode and Major Depressive Disorder in the Diagnostic and Statistical Manual (DSM IV). Yet only a minority of people who have become mentally ill ever engage in self-harm. In additional, suicidal behaviour does not have a separate diagnostic category in either the International Classification of Diseases (ICD 10) or DSM IV. However the medical model has also provided insights into interpersonal factors in suicidal behaviour. Restricted problem solving and interpersonal coping is important sequel in the commonest forms of mental illness including depression, anxiety, alcoholism and schizophrenia (Brown & Harris, 1978; Vaughan & Leff, 1976). Interpersonal coping is determined by a person's ability to select an effective response and to consider the effects of their behaviour on others (McLeavey, 1986). This ability, which is known to influence

prognosis in psychopathology, may also determine who chooses suicide. In the context of suicidal ideation for instance, reasons for living including family and child-related concerns, are important interpersonal considerations in the suicidal decision, which can prevent those who become suicidal from attempting suicide (Linehan *et al.*, 1983).

One of the more recent developments away from a completely psychopathological explanation has been towards a public health model of suicidal behaviour. This epidemiological model is broad and incorporates low risk common factors that affect physical and mental health in the general population. These include living conditions, employment, education and recreation, which have become the targets of national suicide prevention strategies (Finnish National Research and Development Centre for Welfare and Health, 1993; Canadian Task Force on Suicide Report, 1994; Irish National Task Force on Suicide, 1998).

Although in mental health terms suicidal behaviour is a maladaptive coping response, in public health terms most parasuicides are coping in adverse, unbearable circumstances such as poverty and poor living conditions (Kelleher, 1996). In such cases, parasuicides feel that they are opting for the only course of action available to them. In this context their behaviour is adaptive rather than irrational. "Although there are numerous theoretical perspectives on suicidal behaviour, many emphasise that it represents an individual's attempt at problem solving," (Linehan *et al.*, 1987, p1-2).

When people are suicidal, they tend to regard suicidal behaviour as an effective coping response and this attitude is also found to significantly predict suicide intent (Linehan *et al*., 1987). However suicide is usually used to eliminate or escape problems while Para suicide is a means of avoiding problems. Both behaviours arise when a person fails to accommodate or resolve problems, and in that sense rather neither is constructive coping behaviours (Applebaum, 1963; Linehan *et al*., 1987).

Although epidemiological models incorporate a wider range of risk factors, they tend to focus on socio-economic difficulties that stretch people's coping resources. These models come close to identifying the kinds of lifestyle burden that will put people at increased risk of self-harm. Yet they do not take individual resilience factor into account and are in this way as deficient as sociological models. One of the main reasons for the development of complex, multi-factorial models of suicidal behaviour has been due to the increasing awareness of the insufficiency of mental illness and epidemiological models. Only a small proportion of people living in adverse circumstances or diagnosed with psychiatric disorder or its associated problems, ever engage in a suicidal act (Williams, 1997). In addition, mental illness does not vary with suicide within specific groups. For example, depression is more prevalent in females, while suicide is not (Salander-Renberg, 1998).

It seems that models cannot accurately represent the factors contributing to suicidal behaviour if they incorporate exclusively interpersonal or interpersonal explanations. Suicidal behaviour needs to be conceptualised as both a clinical issue

that puts specific people at risk as well as a public health issue (McKenna, Kelleher & Corcoran, 1997).

Cognition and problem solving

The majority of people identified as at-risk by both mental illness and epidemiological models are able to successfully negotiate daily hassles, which suggests that other features unique to the person must be involved: "It seems that it is the interaction between life events and the manner in which an individual deals with them, that is very important in determining the kind of behaviour deals with them, that is very important in determining the kind of behaviour manifestation, rather than the nature and severity of the event itself" (Botsis, 1997, p139).

People's motivations are numerous and varied and potentially stressful life events are common. Although Para suicide patients indicate a greater number of life changes preceding their self-harm than general population controls (Arensman, 1997) many other people experience similar stress yet never self-harm (Clum, Patsiokas, & Luscomb, 1979). Cognition is thought to be responsible for differentiating people in terms of how they appraise and react to stressful events (Schott & Clum, 1982).

Cognitive organisation has become one of the foci of psychological research since the 1970's into predictors of suicidal behaviour on the individual level. The complexity and importance of cognitive skills in suicidal behaviour are well illustrated in the proliferation of cognitive research into problem solving among parasuicides (Neuringer, 1964; Neuringer & Lettieri, 1971; McLeavey, 1986;

Linehan *et al.*, 1986, 1987; Evans *et al.*, 1992; MacLeod & Williams, 1992; McLeavey *et al.*, 1994, Sidley and Whitaker, 1997).

D' Zurilla and colleagues (D 'Zurilla and Goldfried, 1971; D'Zurilla and Nezu, 1982) have defined problem solving as a self-instructive behavioural process through which a person tries to find appropriate and adaptive ways of coping with problems they experience in everyday life.

Cognitive processes

Most suicidal behaviour is directly preceded by an event known as a precipitating factor, usually taking the form of an interpersonal loss, which causes a person considerable distress. Neuringer and Lettieri (1971) conceptualise cognitive processes as the building blocks to these precipitants of suicidal behaviour, because they determine how losses and other experiences are perceived, evaluated, categorised and understood.

A person's characteristic thought processes are therefore an important interface between experience and response. Cognition determines the way in which people perceive, interpret and respond to experience. Cognitive schemas are thought structures that mediate behaviour and experience by channelling the ways in which people understand and respond to events. Schemas are composed of beliefs and rules that regulate thoughts, feelings and behaviour (Eysenck and Keane, 1990). These structures draw together cognitive patterns such as attitudes, expectations, thought styles and abilities; and have been found to relate to suicidal behaviour, independently of life stress or psychopathology (Linehan *et al.*, 1983).

The model of coping proposed by D' Zurilla and Nezu (1982) consists of both problem orientation and problem solving. Problem orientation is explained as a motivational process that operates through a set of schemata that indicate the way a person thinks and feels both about their day-to-day problems and their problem solving ability. Problem solving designates the strictly rational process of identifying a solution using problem-solving skills to enhance the chances of seeking the most adaptive response to a problem. In its broad sense, problem solving encompasses both these processes. The application of cognitive strategies and the higher order issue of self-efficacy are both vital ingredients of the problem solving process.

Cognitive characteristics of suicidal individuals

Cognitive research in suicidology has primarily tried to pin down the processes responsible for how suicidal people interpret their world and how their coping becomes restricted. Perceptual and interpretative processes mediate interpersonal contexts and peoples' behavioural responses to them Neuringer and Lettieri (1971) articulate this problem with the following question:

"… What is there about how a person sees his world that leads him to want to abandon it?"(p107). If a person interprets their situation as unbearable or intolerable then they may feel compelled to escape from it. The way in which thoughts are organised seems to be closely related to how a person behaves. Numerous studies have examined whether a person who becomes suicidal, has a distinctly different way of thinking that impacts on how they understand and approach the world (Neuringer, 1964, Neuringer & Lettieri, 1971; Levenson, 1972, Linehan *et*

al., 1987). This style of thinking may pave the way for more serious cognitive tendencies, such as pessimistic and depressing thoughts.

One of the most widely recognised risk factors for suicide- irrespective of psychopathology- is past suicidal behaviour (Brent *et al.*, 1993a, 1993b; Appleby, 1997). Empirical attempts to address cognitive correlates of suicidal behaviour have therefore compared cognitive features of those who engage in suicidal behaviour, with those who do not (Linehan *et al.*, 1983; Limbacher & Domino, 1986; Priester & Clum, 1992). Many efforts have been made to develop a cognitive profile that predisposes a person to suicidal behaviour. Three cognitive characteristics commonly found to distinguish suicidal people shall be examined.

Dichotomous thinking

Although there has been consistent empirical evidence of the association between impersonal cognitive characteristics and suicidal behaviour, a lack of attention has been paid to the specific suicidal behaviours to which these cognitive characteristics apply. Dichotomous thinking (Shneidman, 1957) which is the inclination to think in bipolar opposites- is a distinctive characteristic of thinking among suicidal individuals (Botsis, 1997). "The high suicidal lethality person has the greatest amount of dichotomous thinking of any population ever evaluated in suicide research" (Neuringer & Lettieri, 1971, p122). Dichotomous thinking is characterised by extremes, so that for example, the suicidal person evaluates something as either very good or very bad: This thought tendency has implications for interpersonal functioning because if things are not interpreted as positive or good or enjoyable, they

can only be negative, bad or unbearable. A severe limit is placed on a person's coping repertoire because they evaluate very few things as acceptable (Neuringer & Lettieri, 1971).

Neuringer & Lettieri (1971) have found that highly suicidal participants engage in consistently more dichotomous thinking in relation to the concepts of life and death than moderate lethality, how lethality or non-suicidal groups; and that the highly suicidal are significantly more dichotomous, specifically in relation to the life concept. In contrast, they found that non-suicidal subjects demonstrate the greatest moderation in their views, with the lowest score for dichotomous thinking of all groups. Neuringer and Lettieri (1971) suggest that this is an indication of the extremes by which the high lethality group organises their thoughts about life. Dichotomous thinking around the life concept, like hopelessness, may be particularly important to suicide risk. It has been found that the absence of future positive events as opposed to anticipations of negative events differentiates Para suicide from people without a suicide history (MacLeod, Rose & Williams, 1993).

Cognitive rigidity

Shneidman (1996) has described the suicidal mind as one characterised by constricted thinking, which is synonymous with rigidity. Cognitive rigidity is a term used to describe inflexible thinking that hinders a person's ability to generate alternative solutions to a problem. Rigidity has consistently been found to distinguish suicide attempters from other emotionally disturbed or hospitalised patients (Neuringer, 1964; Patsiokas, Clum & Luscomb, 1979). In one comparison of patients

who had attempted suicide with patients with psychosomatic disorders and somatic patients, the suicide attempter group was the only one to score significantly higher on rigidity (Neuringer, 1964). However as suicidal ideation was not examined in any of the three groups, rigidity might be an artefact of the suicide attempt rather than a predisposing characteristic. In addition the sample size was small, with only 15 respondents allocated to each of the three conditions, and the sample was limited to males.

In a later study (Patsiokas, Clum & Luscomb, 1979) suicide attempters aged 19 to 50 were found to be significantly more cognitively rigid than psychiatric controls of the same age, and this difference was independent of psychiatric diagnosis. Past ideation was not measured, so it is not known if cognitive rigidity relates only to overt self-harm in the sample. Older respondents did not differ on rigidity, which suggests that the relationship between suicide attempt and rigidity is independent on age. Gender effects could not be examined, as the sample was restricted to males.

Interpersonal coping

A large proportion of people's thoughts are concerned with their relationships with other people. Interpersonal difficulties are arguably the most important precipitants to suicidal behaviour (Hawton & Fagg, 1992). Cognition is relevant for interpersonal coping in so far as people's characteristic styles of thought impact on their relationships with others. Cognition is instrumental on two levels:

1. How a person views their interpersonal context
2. How a person views their capacity to adapt to it

Success in interpersonal problem solving may be partly dependent on impersonal task performances such as cognitive rigidity and dichotomous thinking (McLeavey, 1986). Interpersonal problem solving is a function of cognitive skills that govern among other processes- selective attention; interpretation and recall of information; evaluation of self and others, and mediation in relationships. Interpersonal coping is partly concerned with the ways in which people mobilise these cognitive skills to interact with the people around them (Dobson, 1988).

People who engage in suicidal behaviour tend to have difficulty in forming or maintaining relationships. Empirical studies of Para suicide patients presenting with self-harm in hospital casualty indicate that an important precipitant is an interpersonal argument preceding the act (Kelleher, 1997; Hawton & Fagg, 1992). The problems cited by Para suicide patients are sources of coping difficulty are predominantly interpersonal (Linehan *et al.*, 1986, 1987; McLeavey *et al.*, 1994; Hawton *et al.*, 1997). Parasuicides also tend to cite interpersonal difficulties as their primary problem, significantly more than suicide ideators or nonsuicidal psychiatric controls (Linehan *et al.*, 1986).

Conversion

Despite the similarities between the aetiologies of different forms of suicidal behaviour, suicide ideators, attempters and completers are not the same. The relationship between them might best be described as that between "distinct yet overlapping aspects" (King, 1997, p62), with both similarities and differences. Ideation is considerably greater in terms of incidence and prevalence, then suicide

attempts. Ratios of ideation to attempt reported in numerous studies have invariably been high. Bille-Brahe (1997) .The review indicates a substantially higher prevalence of ideation over attempt. According to the rates the ratio of ideators to attempters varies between3:1 and 13:1 demonstrating that only a minority of those who have suicidal ideation goes on to attempt suicide. The proportion of ideators, who complete suicide is even less. The proportion of people experiencing serious suicidal ideation that eventually suicide has been estimated at 1% (Gunnell, 1994; Salander Renberg, 1998). Ideation is only a useful marker of suicide risk in as much as it is possible to assess suicidal thoughts most likely to convert to action. On the other hand, most psychological autopsy studies indicate that the majority of suicides have had ideation. According to Leonard and Flinn (1972) 80% of completed suicides examined retrospectively have reported prior suicidal ideation. Morgan and Stanton (1997) report that 83% of in-patient suicides report suicidal ideation, and it is reasonable to assume that many other in-patient suicides refute ideation in order to avoid closer observation by hospital staff. Another general estimate is that between 60 and 80% of those who commit suicide will have communicated their intention either directly or indirectly through hints or suggestions (Retterstol, 1993).

Among the young in particular, suicidal ideation may have more tenuous links with attempt for two reasons. Firstly ideation tends to be more common in young people (Schwab, Warheit & Holzer, 1972) and secondly, impulsivity is a salient trait in this age group. Lester (1972) found that students reporting past suicide attempts or threats were more impulsive and irritable than non-suicidal students.

Kessel (1967) found that two-thirds of the non-lethal acts of self-poisoning the examined were impulsive. Parasuicide patients reported that five minutes prior to the act, the idea of taking poison had not come to the act itself was not the culmination of a plan- "*The* mind. Although *intention just 'came over' them"* (p264)- the majority had previously considered suicide. This does not support the notion of a suicide continuum strictly organised in time from mild ideation, to severe ideation with planning, to overt self-harm. Clearly parasuicide does not have to be immediately preceded by elaborate ideation. However Kessel's (1967) study also demonstrates that lifetime ideation is important. It may indicate tolerance of suicidal behaviour as a potential coping option, which is later drawn upon or activated when a person encounters a stressful situation. This is important given that attitudes have been found to exert a distal influence on behaviour (Schuman & Johnson, 1976).

The varying definitions of ideation used in prevalence studies have made it impossible to make comparisons between studies of ideation and attempted or completed suicide. This is largely due to confusion around the concept of ideation:

"The failure of researchers to draw conclusions specific to the behaviours under consideration has prohibited meaningful comparison between studies. The lack of specificity has also perpetuated confusions regarding the definition and measurement of specific suicidal behaviours," (Addis and Linehan, 1989,p2).

This may also explain the disparity between the rates of ideation reported as in the case of Bille-Brahe's (1997) review.

Ideation has been measured in several studies using the question: "Have you ever considered suicide? (Lester, 1968; Domino, Cohen & Gonzales, 1981; Domino & Leenaars, 1989; Domino, MacGregor & Hannah, 1989; Domino & Takahashi, 1991; Leenaars and Domino, 1993; Domino & Su, 1995; Domino, Lin & Chang, 1995). Those answering positively to the question were categorised as ideators and those responding negatively were categorised as non-ideators. In other studies, ideation has been measured using very different questions: "Have you ever considered harming yourself?" or "Have you ever wished for death?"(Cavan, 1965). Other studies have proceeded by categorising suicidal behaviour. Leonard and Flinn (1972) classified suicidal behaviours among their sample in the following way:

1. Minimal consideration of the thought of suicide
2. Non-serious threats or gestures
3. Serious suicidal thoughts or a serious suicide attempt

Mavreas and Ustun (1997) classified people into three ideation categories on the basis of symptoms related to death and suicide:

- Thoughts of death
- Wishes for death
- Thoughts of suicide

Specific operationalisation of suicidal ideation facilities more refined analysis and comparisons with other studies. Unfortunately it is restricted by the lack of an agreed nomenclature. Intent may offer the most feasible pathway for resolving

the issue of conversion from thought to action. Intent is an effective marker for suicide completion and may facilitate extrapolation from one category of suicidal behaviour to another (Beck, Schuyler & Herman, 1974). Lester, Beck and Mitchell (1979) address this issue in a follow-up study of attempted suicides, some of whom later committed suicide. Depression and hopelessness scores of completed suicides were similar to those of the attempters with high intent. However even in cases where ideation seems to be more severe i.e. well thought out with a plan, it does not necessarily follow that intent is greater. Approximately 64.4% of student sample in a study by Mishara, Baker & Mishara (1976) were ideators- a large proportion of whom also made a plan of self-harm. However most of these planners stated that they would never attempt self-harm.

Problem solving stability

Neither suicidal ideation, intent nor suicidal crises are permanent, which has led to investigations of the temporal nature of coping difficulties. Although self-harming patients have been found to suffer from poor problem solving on admission to hospital (McLeavey, 1986; McLeavey *et al.*, 1987; 1994, Linehan *et al.*, 1987, Salkovskis, Atha & Storer, 1990) there is debate about the persistence of these difficulties after the suicidal crisis has subsided (Schmidtke & Schaller, 1992). If cognitive skills are unable, deficits would only be apparent during stress precipitating a suicidal crisis. Schotte, Cools & Payvar (1990) found that hospitalised suicide ideators demonstrated improvements in depression, hopelessness, state anxiety and ideation across time, which were accompanied by improved interpersonal problem

solving skills, in the absence of any problem solving intervention. Their conclusion was that problem-solving deficit might be concomitant with ideation and a function of stress reaction. In the case of self-poisoners however, problem-solving deficits have been found to be stable:

"Interpersonal problem solving deficits found in self-poisoning individuals are more likely to reflect a relatively enduring cognitive characteristic than a transient lower performance related to a high hopelessness level," (McLeavey *et al.*, 1987, p45). This stability may in part be attributable to the reinforcement of suicidal behaviour as a problem solving strategy, which makes it more likely- once a person self-harms-that they will repeat the behaviour.

Linehan *et al*, (1987) examined a sample of people with a history of parasuicide and found no differences in problem solving between those presenting with current ideation and those presenting with current parasuicide. They interpreted this as evidence of the stability of interpersonal problem solving in all respondents, rather than a state created by the stress of the current attempt in the respondents presenting with parasuicide. However both samples were suicidal at the time of the study and problem solving scores may be related more to the respondents' shared state of distress than to constant coping skills.

An alternative argument has been made that there is a predictive relationship between stress, and problem solving deficits on the one hand, and depressive symptoms, hopelessness and suicidal ideation on the other (Priester & Clum, 1993). They addressed this possibility in a study examining 282

undergraduates for problem solving deficits before and after a naturalistic stressor consisting of a grade D or F in an exam. Students who had problem solving deficits prior to measurement were more inclined to develop suicidal ideation in response to the stressor. This was attributed to interactions between poor problem solving and stress. Because their design was longitudinal, it was possible to test the relationship problem solving and ideation prospectively. Their findings indicate a relationship between persistent problem solving difficulties, stress and the aetiology of suicidal ideation. The study does not examine whether problem solving does not improves following exposure to a stressor and so it cannot refute that suicidality may reduce problem solving, as Schotte, Cools & Payvar (1990) are suggesting. Nevertheless, it indicates that at the level of ideation alone, there are identifiable problem solving difficulties and secondly that problem solving is a measurable predictor of suicidal ideation. This has promising implications for efforts to distinguish different forms of ideations in terms of accompanying problem solving difficulty.

Interaction

Theories of suicidal behaviour focus on intrapersonal or interpersonal factors and those that incorporate both factors such as bio-psychosocial models have had the greatest influence on its conceptualisation and treatment. While the majority of people who consider, attempt or commit suicide are responding to some form of stress, most which experience stress never self-harm. While most people who commit suicide may have a diagnosable mental illness, the majority of those who are mentally ill never commit suicide. No one factor on its own is responsible for suicidal

behaviour, as it only arises when several factors coincide or interact. The challenge facing 'multifactorial' models of suicidal behaviour is not alone in finding a way to coherently represent the relationships between individual factors and their influence on conversion, but also in applying these frameworks to suicidal behaviour in the real world.

Prediction

One of the most ambitious aims of research into suicidal behaviour is to predict the individuals who are most likely to attempt or re-attempt self-harm so that preventive resources can be allocated appropriately. Models of suicidal behaviour provide a configuration of the processes that can lead to self-harm. Most models try to clarify the interconnecting role of risk and protective factors. Risk factors can include biological variables (such as physical or mental illness and disability); psychological variables (cognition, attitudes, coping, distress, behavioural impulsivity); and social variables (cultures, values, socio-economic status, education) that increase a person's likelihood of engaging in suicidal behaviour. Protective factors have the opposite effect and inhibit individual vulnerabilities. Suicide risk can only be accurately estimated on the basis of both types of factor.

Interactive models of suicidal behaviour integrate findings on risk and protective factors and indicate how one difficulty may lead to greater risk if a protective factor is not present (MacLeod, Rose & Williams, 1993). One of the earliest interactive models conceptualised interpersonal problem solving difficulties as a predisposing factor for suicidal ideation in people affected by chronic stress (Schotte

& Clum, 1982). When the model was tested on a sample of college students, ideators were found to be under significantly greater stress and were significantly more depressed and hopeless than non-ideators. The strongest association with severe ideation was among students with poor problem solving under high stress. As the study is retrospective however, no information is available regarding the problem solving ability of students prior to the development of suicidal ideation. With limited information about the direction of causality, the potential for "arresting" the suicidal process is severely restricted. In addition, their model fails to take the counteracting influence of protective factors into account. For example, individuals with poor problem solving ability may be more inclined to engage in suicidal behaviour in response to stress if supportive family members are not present.

One of the most important points in relation to interactive, processual models is that the relationships between risk and protective factors are not identical for all forms of suicidal behaviour. Interpersonal difficulty is more important in the case of parasuicide than ideation (Linehan *et al*., 1986). Ideation may be a general response to stressful situations and does not signify uniform suicide risk for all people engaging in it. Ass already suggested, for some people ideation may even enhance coping skills and counteract other risk factors. If research is to be operate on the premise of a suicide continuum of behaviours- including plan, threat, gesture or attempt- as to those who do convert. In this way more information would be generated on the *"filter mechanism"* (Kelleher, 1996) involved in proceeding from low to high-

risk suicidal behaviour. More light needs to be shed on factors that differentiate these subgroups.

Social support

There is a strong association between poor social support and psychological disorder. Social support may operate in two ways: Firstly, it can exert protective influence against stressors and secondly it may indirectly buffer against the outcome of stressful events (Milne & Netherwood, 1997). The mobilising of social support is an important motivation in both interpersonal problem solving and parasuicide. Problem solving and social support are regarded as important mediators between life stress and suicidal ideation. Yang and Clum (1994) compared the power of each of these mediators by testing both a stress-social support model and a stress-problem solving model in a sample of 88 students. Although social support interacted with life stress in ideation prediction, only problem solving was directly related to ideation.

Stressful life events

Interactive models are not limited to the assumption that coping deficits are only concomitant with current stress. There is also evidence that coping style is moulded by earlier exposure to traumatic events. In a study of randomly selected conscripts (Botsis *et al.*, 1991) those who reported moderate to severe suicidal ideation during their first 10 days in the military were found to have experienced significantly more stressful life events during the year prior to the study than those who did not report ideation. Yang and Clum (1996) have proposed a comprehensive

cognitive pathway in which early traumatic life experiences can affect subsequent suicidal behaviour by influencing cognitive functioning from an early stage. Several studies of parasuicides have found that many of them have experienced difficulty circumstances during childhood (Arensman, 1996; Beautrais, 1997; Botsis, 1997; Paykel *et al.*, 1974). Poor coping skills may not simply be caused by traumatic life events. It might for instance be useful to examine parent coping skills, which may be learned by the parasuicide during childhood. Parental difficulty might also explain the greater frequency of stressful events during the parasuicide's childhood.

CHAPTER-II

OBJECTIVES AND RESEARCH DESIGN

CHAPTER-II

OBJECTIVES AND RESEARCH DESIGN

Statement of the Problem

Main purpose was to investigate the suicidal ideation, problem solving skills and attitudes towards suicidal behaviour.

Suicide attempters and parasuicides have problem solving difficulties, both at the level of rational problem solving strategies and perceived problem solving ability. Non- fatal suicidal behaviours are accompanied by attitudes regarding suicide as normal and useful. Ideation is common. In fact, ideation has become more socially acceptable as a response to distress, which in turn begs the question whether it serves as a useful coping strategy, by broadening the options available to an individual when they encounter a problem. It is important to discriminate between ideation in which self-harm is seen as one potential option and ideation in which self-harm in envisaged as the only option. There is a useful distinction between "perturbation"- an extremes sense of pain and frustration on the one hand and "lethality"- which defines as the attitude that suicide is the only solution to this pain and distress. Both perturbation and lethality have to be present for self-harm to occur. The problem in researching suicidal behaviour is largely a definitional one. In the case of ideation, this is particularly problematic. Firstly ideation is classified as behaviour in suicidology because it implies some level of intent, which is a central feature of all self-harm. The assumption of most models of ideation is that self-harm is invariably preceded by strengthening intent, that culminates on the formulation of a plan. Although ideation may provide an indication of the severity of intent of the suicidal individual, the relationship between suicidal intent and self-harm is not clear-cut. For instance, many people self-harm impulsively without any advance preparation or consideration. At the same time suicide risk is generally understood to be greater if the individual concerned has formulated a plan. The important issue in ideation among cross-cultures in ideation is the likelihood of conversion from thought to action and

thoughts that articulate a plan are generally considered to indicate the greatest risk. The aim of the present study therefore, is to examine whether ideation is concomitant with problem solving difficulty and tolerance of suicide among cross-cultures, and whether within the range of thoughts that constitute ideation, a distinction might be made in terms of problem solving and attitudes between those who merely consider suicide and those who both consider and plan suicide.

Objectives of the Study

The aim of the present study is to examine whether ideation is concomitant with problem solving difficulty and tolerance of suicide, and whether with the range of thoughts that constitutes ideation, a distinction might be made in terms of problem solving and attitudes between these who merely consider suicide and those who consider and plan suicide.

Hypotheses

The following hypotheses were formulated:

1. Ideators will show poor problem solving ability as compared to Non-ideators
2. Ideators without a plan have a greater tendency to evaluate suicidal behaviour positively than Non-ideators.
3. Among ideators those who plan have the poorest problem solving ability.
4. Planners have the most tolerant attitude towards suicidal behaviour as compared to Ideators and Non-ideators.

Research Design

Suicidal Ideation: It has been defined as plans and wishes to attempt suicide (Beck, Kovacs and Weissman, 1979).

Attitude Towards Suicide: Attitudes are useful in examining suicidal behaviour, as they can provide a measure of individual differences between people with a history of self harm and those without. They are also central to the prediction of suicide risk (Addis and Linehan, 1989).

Problem Solving Skills: Neither suicidal ideation, intent nor-suicidal crises are permanent, which has led to investigation of the temporal nature of coping difficulties. Although self harming patients have been found to suffer from poor problem solving on admission to hospital (McLeavey, 1986).

Operational definitions of the three levels

i. Non-ideators are operationalised as any respondents who report never having considered or attempted suicide at any point in their lifetime.

ii. Ideators are operationalised as respondents who report having considered suicide at some point of their lifetime but never having planned or attempted it.

iii. Planners constitute ideators whose ideation has included a detailed plan at least once in a lifetime.

Sample

Three hundred and fifty students from five faculties at University College Cork Ireland were randomly selected as samples, both male and female. Subjects were selected from different communities, belonging to different cultures and they were matched at different variables, age, education, marital status and gender.

Instruments

The questionnaire used was compiled specifically for the present study and comprised of four self-report measures.

1. **Demographic Information**

This was modified from the Sociodemographic section of the European parasuicide Study Schedule. It addresses background information about respondents, including gender, age, nationality and marital status.

2. **Suicidal Opinion Questionnaire** (SOQ), Domino et al., 1982, MacGregor & Hannah, 1988-89)

The SOQ was developed for use with both clinical and non-clinical populations to measure attitudes to suicidal behaviour. The four scales were selected from a total of eight clinical scales. The four clinical scales combined, comprised 40 items in total, Likert-type 5 point response format.

3. Suicide History Questionnaire

Modified from the demographic section of the suicide opinion questionnaire (Domino et al., 1982) to measure suicidal ideation. Version of the scale was used with the pilot example to examine lifetime.

4. The Self-rating Problem Solving Scale

This scale was used to measure the problem solving skills of participants. The scale items measured a combination of both rational problem solving strategies and self-evaluation 1 terms of coping skills. Consisting of 25 items, the response format was a 5-point Likert scale, which measured respondent's attitudes to their interpersonal problems and coping skills.

CHAPTER-III

METHOD

METHOD

CHAPTER-III

Sample

Three hundred and fifty students randomly selected from 5 Faculties at University College Cork, Ireland participated in the study. These comprised 141 Physiology students (Medicine, Dentistry, and Science faculties); 109 Commerce students and 100 Law students. Of the 350 students participates, one hundred and fifty-seven (42%) were males and 203 (58%) were females. The vast majority of the sample 310 (88.6%) was Irish. Of reminder, exactly half (19/5.4%) was Malaysian; 3 were American; 3 were Canadian; 2 were Singaporean; 2 were Botswanan; and 2 were Tanzanian. There was 1, Mauritian and 1, Brunesian; 1, Srilankan; 1, Kuwaiti; 1, Swedish; 1, British, and 1, Spanish. Two respondents did not indicate their nationality. As is characteristic of student samples, the vast majority (98.7%) were single, with only 6 married. Religious affiliation was typical of most Irish universities, with a Catholic majority (296/84.6%). The remainder of the sample comprised 20 Muslims (5.7%); 11 Protestants (3.1%); 5 Hindus; 4 Buddhists; 1 Jew and 2 respondents of another affiliation. Eleven respondents (3.1%) were unaffiliated. The mean age of the sample was 19.1 year, with a modal age of 18 years. Age ranged from 17 years to 25 years. All belonged to middle class.

Description of the Tests

The questionnaire used was designed specifically for the present study and comprised four self-report measures in English language. These appeared in the following order:

1. Demographic Information

This was modified from the socio-demographic section of the European Parasuicide study Interview schedule (Kerkhof *et al.*, 1994). It addresses background information about respondents, including gender, age, nationality, marital status and socio-economic status.

2. Four factorially derived Clinical Scales from the Suicide Opinion Questionnaire (SOQ)

The SOQ was developed (Domino *et al.*, 1982; Domino *et al.*, 1988-89) for use with both clinical and non-clinical populations to measure attitudes to suicidal behaviours. The four scales were selected from a total of eight clinical scales. These include a Religion Scale, measuring the attitude that suicidal behaviour is due to a decline in religious belief and practice; and a Moral Evil Scale attributing suicidal behaviour to moral decay. It was decided to omit these scales because earlier research has indicated that young people are less inclined to attribute suicidal behaviour to religious or moral issues (Boldt, 1982). Both of the remaining scales- the Aggression scale which attributes suicidal behaviour to innate aggression and violence; and the Impulsivity Scale, which measures the attitude that suicidal behaviour is impulsive-

were thought to be less useful in differentiating Non-ideators from Ideators or from Planners. The four clinical scales combined comprise 40 items in total with a Likert-type five-point response format (*"strongly agree" to "strongly disagree"*). As in the case of all studies employing the SOQ outside the United States, several items had to be modified because of cultural inappropriateness (Domino, 1996). The four opinion subscales were scored using the relevant scoring keys from the clinical scales of the SOQ (Domino *et al.*, 1989). Since the SOQ analysis is a tedious job and prone to errors, hence a computer based approach was used where all the data was put in the computer program and assigned some statistical analysis for better results.

3. Suicide History Questionnaire

This was modified from the demographic section of the Suicide Opinion Questionnaire (Domino *et al.*, 1982) to measure suicidal ideation. The first version of the scale was used with the pilot sample to examine lifetime ideation, when ideation occurred, severity of ideation, and inclusion of a detailed plan, prior attempts. This was modified for use in the second and third stages of the study. Additional questions measured frequency of suicidal thoughts, persistence of suicidal thoughts, and occurrence of ideation during the past month and past year.

4. The Self-rating Problem Solving Scale (SRPS)

This scale (McLeavey and Daly, 1988) was used to measure the problem solving skills of participants. It was constructed specifically for use as a measure of problem solving among self-poisoning patients both with and without diagnoses, but

as items address every-day interpersonal issues, they are also relevant to non-suicidal and non-clinical populations. The scale items measure a combination of both rational problem solving strategies and self-evaluation in terms of coping skills. Consisting of 25 items, the response format is a 5-point Likert scale, which measures respondents' attitudes to their interpersonal problems and coping skills. Responses are scored from 1 to 5 on the following dimensions. Frequency of occurrence, ("almost never" to "almost always") for 19 of the opinion items, Severity of problems for five items ("much worse" to "much less difficult"), Strength of agreement with one item ("there is only one good solution to every problem")

In an attempt to minimise response bias, McLeavey and Daly (1988) randomly keyed items in an opposite direction where items 4, 6, 9, 11, 12, 13, 16, 20, 22, 23, 24 and 25 are marked negatively and all others are positively scored.

PROCEDURE

Permission was obtained from the Registrar at University College Cork Ireland, to carryout a study of suicidal ideation, interpersonal problem solving ability and attitude to suicidal behaviour. The students were contacted at University College Cork Ireland. During the initial meeting subjects were motivated to undergo the assessment process. After establishing rapport with the subjects, the purpose of the study was explained to them in the following words:

"I am a Pakistani student studying suicidal ideation and attitude to suicidal behaviour in Ireland. I am also interested in studying the problem solving skills, so as

to give some recommendations to improve the conditions and treatment strategies in suicidal ideation and develop suicide prevention programmes for educational as well as in the hospitals in Pakistan. This aim cannot be achieved without your help and cooperation. Participation is voluntary, before obtaining their informed consent. Your information will remain confidential".

The students were interviewed and tested at a relatively disturbance free place inside the college. They were also motivated to take the test follows the procedure. The assessment process was divided into four phases, during phase 1, subjects were given a questionnaire and asked to complete each blank providing information about demographic characteristics. During phase 11, four factorially derived clinical scales from the Suicide Opinion Questionnaire, during phase 111, Suicide History Questionnaire was administered with an interval of 15 minutes, so as to avoid fatigue resulting from the test taking and during phase 1V, The Self-Rating Problem Solving Scale. Measurement was carried out in three separate stages

In the Study samples by faculty, study 1 was a Pilot study and total Number of students was (119/29.17%). Medical, Dental and Science students were involved in it. In study 2, total number of students was (209); in which (109/26.72%) was Commerce and (100/24.51) were Law students. In study 3, which was the follow-up study, total number were (80), in which (58/14.22%) were Medical /Dental and Science students and they were matched, where as New subjects were (22/5.39%). Total Respondents were (350/85.78%), Participants followed-up (58/14.22%) and total protocols were (408).

Stage 1

The Dean of the Medical Faculty provided access to second year students following courses in Medicines, Dentistry and Science (n=119). Data collection was conducted during scheduled lecture periods. Directly prior to measurement, the lecturer informed students to fill out a questionnaire. The researcher then explained to participants that the purpose of the study was to examine cross-cultural attitudes to suicide and health-related issues.

During the initial meeting students were motivated to undergo the assessment process. After establishing rapport with the subjects, the purpose of the study was explained to them in the following words:

"I am a Pakistani student studying suicidal ideation, interpersonal problem solving ability and attitude to suicidal behaviour in Ireland. I am also interested in studying the problem solving skills, so as to give some recommendations to improve the conditions and treatment strategies in suicidal ideation and develop suicide prevention programmes for educational as well as in the hospitals in Pakistan. This aim cannot be achieved without your help and cooperation. Participation is voluntary, before obtaining their informed consent. Your information will remain confidential".

The students were interviewed and tested at a relatively disturbance free place inside the college. They were also motivated to take the test follows the procedure. The assessment process was divided into four phases, during phase 1, subjects were given a questionnaire and asked to complete each blank providing

information about demographic characteristics. During phase 11, four factorially derived clinical scales from the Suicide Opinion Questionnaire, during phase 111, Suicide History Questionnaire was administered with an interval of 15 minutes, so as to avoid fatigue resulting from the test taking and during phase 1V, The Self-Rating Problem Solving Scale. Confidentiality was emphasised because of the nature of the information sought and students were reassured that their signed consent forms would later be separated from protocols. Students were advised that there were no right or wrong answers and that it was their own opinions that were sought. Researcher was present throughout the sessions to answer queries. An overhead was displayed giving the phone number of both the researcher and a Psychiatrist specialised in suicide research and bereavement counselling. The researcher collected the protocols from students at the end of the session.

Instruments

All four self-report measures were presented as a combined inventory to all students in the lecture theatre. The same instructions were given to the students.

Stage 2

The Vice-Dean of the Commerce faculty and the Dean of the Law Faculty gave permission to approach lectures for the purpose of the study. Access was gained to further second year lecture groups (Accountancy N=119 and Law N= 98). As in the pilot stage, questionnaires were completed and collected during scheduled lecture periods. Students were again told about the nature of the study and that participation

was voluntary, before obtaining their informed consent. The researcher emphasised that all protocols would be treated as confidential and that their own opinions were being sought was present throughout the session to answer questions and to collect protocols.

Instruments

Again the four instruments were presented to all students attending a lecture. The Suicide History Questionnaire contained some additional items.

Stage 3

Thirty weeks after the pilot study, permission was obtained from the Dean of the Medical Faculty to re-administer the scales with lecture group, a proportion of who (58) had participated in Stage one. This enabled follow-up measures to be captured. The remaining students attending the lecture were first time respondents. Questionnaires were filled in and collected during a scheduled lecture period. Students were again explained the purpose of the study as before, Confidentiality was emphasised and voluntary consent was obtained.

Instruments

The questionnaire was identical to that used in Stage 2 and were used in the same four phases to that used in stage.1 and 11.

Scoring

The responses on the demographic information, Suicide Opinion Questionnaire, Suicide History Questionnaire and The Self-Rating Problem Solving Scale's given by the subjects were added-up to get the raw score. Statistical analysis obtained to the data applied.

Statistical analysis

All analyses were carried out using the statistical package SPSS 8.0 for Windows (Norusis, 1992). Various techniques were used in the analysis of the data ranging from simple descriptive statistics to multivariate analysis. Where statistical tests were carried out, the required assumptions were tested so that the most appropriate parametric or non-parametric tests could be used.

The basic descriptive statistics used include the mean, standard deviation, range and frequency distribution. The Chi-square test was used to investigate the relationship between categorical variables whereas the linear relationship between continuous variables was measured by calculating the correlation coefficient. In general, Pearson's Product-Moment Correlation Coefficient was used but Spearman's Rank Correlation Coefficient was calculated in cases where the assumption of normality of the data was not met.

Student's t-test (for independent samples and paired samples, as appropriate) was used to compare two groups in relation to a continuous variable (in

all such cases, the assumption of normality was met). In similar comparisons of more than two groups, One-way Analysis of Variance (ANOVA) was carried out. Where statistically significant differences were found, the post hoc pair wise comparisons were testing using Turkey's honestly significant Difference.

Reliability analysis was carried out to evaluate the SRPS and SOQ scales. The reliability model used to calculate internal consistency was Cronbach's a coefficient. Statistics relating to inter-item correlations and the effect of excluding a variable on the reliability coefficient were also examined.

Discriminant Function Analysis was used to investigate the classification of students into their appropriate ideator group using gender and the SRPS and SOQ scales as potential predictor variables. The analysis was carried out separately using all predictor variables and using the stepwise selection of predictor variables. The original classification results are derived from the analysis where all individuals are included. The cross-validated classification results are derived using the leave-one-out method.

CHAPTER-IV

RESULTS

RESULTS

An interview was conducted to explore that suicide risk is generally understood to be greater if the individual has formulated a plan. The important issue in ideation is the likelihood of conversion from thought to action and thoughts that articulate a plan are generally considered to indicate the greater risk. The aim of the present study therefore, is to examine whether ideation is concomitant with problem solving difficulty and tolerance of suicide, and whether within the range of thoughts that constitute ideation, a distinction might be made in terms of problem solving and cross-cultural attitude between those who merely consider suicide and those who both consider and plan suicide. Findings from all three studies were examined in three separate stages of analyses:

Analysis 1: Pilot study responses (study 1), Analysis 2 First time responses (Study 1 & Study 2 & First-time respondents in Study 3) and analysis 3: Follow-up responses (Repeat measures from Study 1 & Study 3)

Analysis 1: Pilot study

This pilot/exploratory study was conducted with a sample of physiology students (n=119). There were 60 female and 59 male respondents. Ages ranged from 17-25. 75% of the sample were Irish, 12% were Malaysian and the remainder comprised 2 Americans, 2 Canadians, 2 Botswana's, , 1 Singaporean,1 Mauritian, 1

Singaporean, 1 Srilankan , 1 Kuwaiti, 1 Brunesian, 1 Tanzanian and 1 Swedish. (Table-4.1)

Table- 4.1. Number of male/female by Levels of ideation

	Male	Female	N
Nonideator	34(57.6%)	38(63.3%)	72(60.5%)
Ideator without plan	17(28.8%)	18 (30%)	35 (29.4%)
Planner	8 (13.6%)	4 (6.6%)	12 (10.1%)
Total	59	60	119

Gender Effects

Level of ideation was found to be independent of gender (Table-4.1) (Chi-square = 1.576, df = 2, p=0.455). Forty-two percent of males and 37% of females had some form of ideation. Two females planner had made an attempt at self-harm. There were no male attempters.

Table-4.2. Correlation between severity of ideation and SRPS and SOQ scales for ideators

Problem	Mental	Normality	Right to Die	Cry for help	Solving Illness
Severity	-0.254	-0.322	0.061	-0.013	-0.076
Spearman's correlation coefficient	0.118	0.027	0.683	0.930	0.614

Severity of ideation

The correlation between ideation severity and both the SRPS and SOQ scales are shown for ideators in Table-4.2. Severity of ideation correlates negatively with problem solving (Spearman's correlation coefficient=0.254) indicating that those with lower problem solving tend to experience more severe ideation. However, the correlation is not statistically significant. (p=0.118). Mental illness is the only scale to correlate significantly with severity of ideation (Spearman's correlation coefficient=0.322, p=0.027). The negative correlation indicates that those with the more severe ideation agreed less with the opinion that suicide is related to mental illness. The remaining three SOQ scales are independent of ideation severity.

Table-4.3. Levels of ideation by gender

Ideators	Male	Female	N
Non – Ideator	99(68.30%)	140(69.0%)	38(68.7%)
Ideator without plan	36(24.8%)	52(25.6%)	88(25.3%)
Planner	10(6.9%)	11(5.40%)	21(6.0%)
Total	**145**	**203**	**348**

Gender effect

The breakdown of students by level of ideation is identical for males and females (Table-4.3). This enables us to conclude that the likelihood of being in any ideator group is independent of gender (Chi-square=0.333, df = 2, p=0.847). Six respondents, two males and four females, have carried out an attempt at self-harm. Attempters came from all samples. Samples one and three each had two attempters, and samples two and four each had one attempter

Methods of self-harm

Three Attempters had taken an overdose, two had cut themselves, and one had both overdosed and cut himself. All six Attempters indicated that their past ideation had included a detailed Plan.

Problem solving

The total sample mean score was calculated on the basis of 292 respondents due to incomplete response sets at 89.2, with a standard deviation of 9.44. These are consistent with the results obtained in both the pilot study and the other studies by McLeavey et al., (1988).

Reliability analysis

Results of the reliability analysis of the SRPS for Stage 2 were almost identical to those obtained in the Pilot study. Cronbach'sα is equal to 0.779 and the average inter-item correlation is 0.129. Here, item 13 ("When I have a problem with

another person I try to get it over with immediately correlates negatively with all but three of the other items.

Table-4.4. Correlation between severity, frequency and persistence of ideation and SRPS and SOQ scales for ideators

Problem	*Solving*	*Mental Illness*	*Normality*	*Right to Die*	*Cry for Help*
Severity	*-0.268*	*-0.199*	*0.127*	*-0.043*	*-0.182*
	0.009	*0.039*	*0.190*	*0.656*	*0.060*
Frequency	*-0.174*	*-0.149*	*0.181*	*0.315*	*-0.187*
	0.221	*0.265*	*0.174*	*0.016*	*0.159*
Persistence	*-0.274*	*-0.087*	*0.120*	*-0.128*	*0.148*
	0.045	*0.507*	*0.357*	*0.324*	*0.256*

Severity, frequency and persistence of ideation

The correlation between ideation severity, frequency and persistence and both the SRPS and SOQ scales are shown for ideators in Table-4.4. Severity, frequency and persistence of ideation all correlate negatively with problem solving, significantly so for severity (p=0.009) and persistence (p=0.045). This indicates that poorer problem solvers tend to have more severe and persistent ideation. Mental Illness correlates significantly with severity of ideation (-0.199, p=0.039). The negative correlation indicates that those less in agreement with the opinion that suicide is related to mental illness tend to have had more severe ideation. The three characteristics of ideation are unrelated to the opinion that suicidal behaviour is

normal. There is a significant positive correlation between the Right to Die scale and frequency of ideation (p=0.016) indicating that those in agreement with the opinion that people have the right to take their own lives tend to have had more frequent ideation. Cry for Help correlates negatively with all three ideation characteristics though not significantly.

Proximity of ideation

Six (10%) and 23 (37%) of the ideators indicated that they had entertained ideation during the past month and year, respectively. Of the former, two indicated that their ideation occurred daily; one respondent said that their ideation occurred almost daily and two indicated that their ideation had been occasional during that month.

Analysis 3: Follow-up respondents

Sample

Fifty-eight medical students were followed up 7.5 months after initial administration of the questionnaire. Gender was almost equal with twenty-eight (48.3%) male and thirty (51.7%) female. The majority of the sample (forty-six respondents/ 79.3%) was Irish and of the remainder, half (6/10.3%) was Malaysian. In addition there was one Mauritian, one Sri Lankan, one Brunesian, one Botswanan, one Canadian and one American. The majority of the sample was Catholic (44/75.9%). Of the remainder almost half (10.3%) was Muslim. Three (5.2%) were Protestant, three (5.2%) were Hindu and two had no denomination. Ages ranged from 18 to 27 with a modal age of 21.

Table-4.5. Test-retest of problem solving and attitude scales

No	P.Value	%Change	P.Value	Problem	Solving
Mental illness	46	0.648	<0.001	+3.9%	0.002
	55	0.674	<0.001	-0.4%	0.755
Normality	55	0.650	<0.001	-5.8%	0.022
Right to Die	55	0.767	<0.001	-6.4%	0.017
Cry for Help	56	0.587	<0.001	-2.7%	0.043

Table-4.6. Test-retest of problem solving and attitude scales by gender

Gender	Problem	*No*	Correlation	P.Value	%Change	P.Value
Male	Problem Solving	19	0.547	<0.015	+1.5%	0.515
	Mental Illness	26	0.748	<0.001	0.2%	0.927
	Normality	26	0.653	<0.001	-8.8%	0.037
	Right to Die	26	0.703	<0.001	-8.3%	0.076
	Cry for Help	27	0.484	<0.011	-1.3%	0.585
Females	Problem Solving	27	0.769	<0.001	+5.7%	<0.001
	Mental Illness	29	0.376	0.045	-0.6%	0.722
	Normality	29	0.666	<0.001	-3.0%	0.314
	Right to Die	29	0.868	<0.001	-4.5%	0.110
	Cry for Help	29	0.660	<0.001	-4.8%	0.016

Test-retest patterns

Statistics relating to the test-retest of the 58 respondents are shown in Table-4.5 to 4.7. It must be noted that very small number of Planners in the follow-group makes interpretation of their results problematic. There would appear to be a general pattern at follow-up whereby scores are, on average, higher for problem solving and lower for the clinical scales. The correlations between initial and follow-up scores are positive and for the most part highly significant. This indicates that the ranking of the students is largely maintained.

Problem solving

Approximately two-thirds of the sample scored higher at follow-up (Table-4.5). This led to a mean score increase of 3.43 (3.9%) which is statistically significant ($p=0.002$). With regard to gender (Table-4.6) only females showed a significant increase in problem solving ($p<0.001$). Problem solving is also significantly higher at follow-up for Nonideators ($p=0.021$) and Ideators ($p=0.024$) (Table-4.7).

Table-4.7. Test-retest of problem solving and attitude scales by Ideators, Non-Ideators and Planners group

Non- Ideators	No	Correlation	P.Value	%Change	P.Value
Problem Solving	27	0.573	0.002	+4.1%	0.021
Mental Illness	31	0.686	<0.001	-0.3%	0.865
Normality	31	0.661	<0.001	-3.5%	0.288
Right to Die	31	0.822	<0.001	-1.9%	0.608
Cry for Help	32	0.564	<0.001	-3.7%	0.098
Ideators	No	Correlation	P.Value	%Change	P.Value
Problem Solving	16	0.748	0.001	+4.5%	-0.024
Mental Illness	19	0.582	0.009	-1.2%	0.554
Normality	19	0.358	0.133	-8.6%	0.075
Right to Die	19	0.616	0.005	-10.1%	0.028
Cry for Help	19	0.570	0.011	-1.4%	0.551

Planners	No	Correlation	P.Value	%Change	P.Value
Problem Solving	3	0.643	0.555	-0.8%	0.899
Mental Illness	5	0.734	0.158	+2.1%	0.684
Normality	5	0.808	0.098	-6.7%	0.280
Right to Die	5	0.800	0.104	-14.8%	0.082
Cry for Help	5	0.977	0.004	-5.5%	0.129

The test-retest correlation coefficient for the whole group (Table-4. 5) is 0.648 ($p<0.001$). This is considerably lower than McLeavey's (1988) test-retest correlation $r=0.87$ ($p<0.001$) obtained with a sample of 44 nursing students. There is a stronger correlation between initial and follow-up problem solving scores for females. This is also the case for Ideators as compared to Nonideators.

Attitudes to suicide

Mental Illness was the only SOQ factor that did not vary significantly at test-retest. The test-retest correlations are generally high except for females. n average, Normality scale scores were lower at follow-up for all groups, significantly so for the total sample ($p=0.022$) and the males ($p=0.037$). The test-retest correlations

are highly significantly except for Ideators. He mean score for the Right to Die scale is lower at follow-up, significantly so for the total sample (p=0.017) and the Ideators (p=0.028). For all group, the test-retest correlation coefficient is very high (ranging from 0.616 to 0.868). As with the other SOQ scales, scores for the Cry for Help factor are lower at follow-up, significantly so for the total sample (p=0.043) and the females (p=0.016). The test-retest correlations are positive and significant for all groups.

Table-4.8. Classification into ideator group using discriminant function analysis based on the SOQ and SRPS scales and gender

Suicidal ideation history	Nonideator	Ideator w/o Plan	Ideator with Plan	Total
Original Count	143	34	20	197
Ideator w/o plan	18	25	34	77
Ideator with plan	4	4	9	17
% Nnonideator	72.6	17.3	10.2	100.0
Ideator w/o plan	23.4	32.5	44.2	100.0
Ideator with plan	23.5	23.5	52.9	100.0
Cross-Count, Nonideator	142	34	21	197
Validated, Ideator w/o plan	19	18	40	77
Ideator with plan	04	12	01	17
% Nonideator	72.1	17.3	10.7	100.0
Ideator w/o plan	24.7	23.4	51.9	100.0
Ideator with plan	23.5	70.6	5.9	100.0

b. 60.8% of original grouped cases correctly classified.

c. 55.3% of cross-validated grouped cases correctly classified.

Classification based on Discriminant function analysis

The classification of students (both original and cross-validated) into the appropriate ideator group using discriminant function analysis based on the SOQ and SRPS scales and gender is summarised in Table-4.8. The correctly classified cases are detailed across the diagonals of the table. When run on the full sample, 9 of the 17 planners (53%) are correctly classified. However in the cross-validation, only 1 planner (6%) is identified.

Table-4.9. Classification into ideator group using discriminant function analysis based on Normality and Problem Solving scores and gender

Suicidal ideation history	Non-Ideator	Ideator w/o Plan	Ideator with Plan	Total
Original' Count Nonideator	142	37	18	197
Ideator w/o plan	17	28	32	77
Ideator with plan	5	4	8	17
% Nonideator	72.1	18.8	9.1	100.0
Ideator w/o plan	22.1	36.4	41.6	100.0
Ideator with plan	29.4	23.5	47.1	100.0
Cross-Count, Nonideator	142	36	19	197
Validated, Ideator w/o plan	18	27	32	77
Ideator with plan	6	4	7	17
% Nonideator	72.1	18.3	9.6	100.0
Ideator w/o plan	23.4	35.1	41.6	100.0
Ideator with plan	35.3	23.5	41.2	100.0

b.61.2% of original grouped cases correctly classified.

c. 60.5% of cross-validated grouped cases correctly classified.

The classification of students into ideator group using stepwise selection of predictor variables is summarised in Table-4.9. Normality and Problem Solving are the variables chosen to calculate the discriminant function. Overall the proportion of correctly classified cases is similar to when all variables are used. In fact, the cross-validated results are better based on two variables with 35%of Ideators and seven

(41%) of the 17 Planners correctly classified as compared to 23% and 1 (6%) respectively, in the first analysis.

Table-4.10. Classification into Planners and Nonplanners using discriminant function analysis based on the SOQ and SRPS scales and gender

Planner Original		Planner	Non-Planner	Total
Count	Planner	10	7	17
	Non-Planner	79	195	274
%	Planner	58.8	41.2	100.0
	Non-Planner	28.8	71.2	100.0
Cross- Count	Planner	9	8	17
Validated	Non-Planner	85	189	274
%	Planner	52.9	47.1	100.0
	Non-Planner	31.0	69.0	100.0

b. 70.4% of original grouped cases correctly classified.

c. 68.0% of cross-validated grouped cases correctly

The categorisation of students as either Planners or Nonplanners using gender and the scale scores is summarised in Table-4.10. The cross-validated results show 53% of the Planners and 69% of Nonplanners to be correctly compared with 10 (59%) and 71% respectively, in the original.

Table-4.11. Classification into Planners and Nonplanners using discriminant function analysis based on Normality and Problem Solving scores.

Planner' Original	Planner	Non-Planner	Total
Count Planner	9	8	17
Non-Planner	79	195	274
% Planner	52.9	47.1	100.0
Non-Planner	28.8	71.2	100.0
Cross- Count Planner	9	8	17
Validated Non-Planner	79	195	274
% Planner	52.9	47.1	100.0
Non-Planner	28.8	71.2	100.0

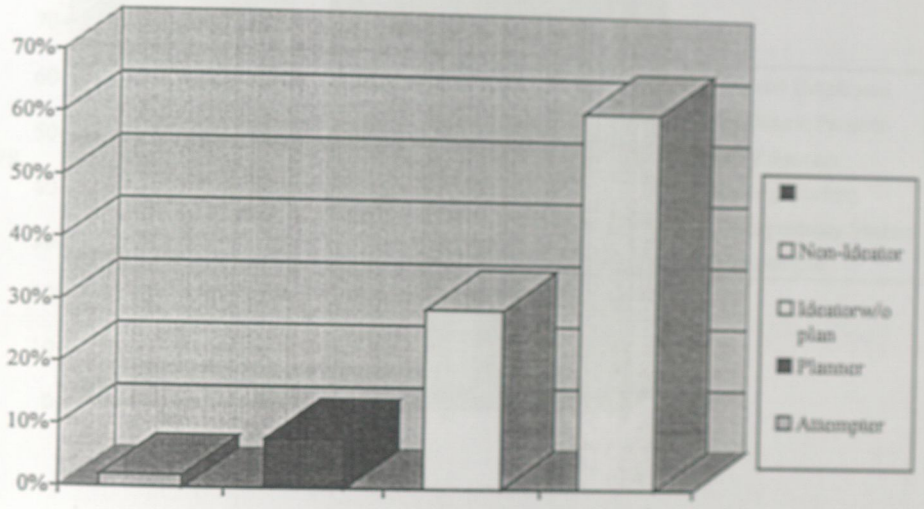
b. 70.1% of original grouped cases correctly classified.

c. 70.1% of cross-validated grouped cases correctly classified.

Normality and Problem Solving are again the variables selected for the discriminant function analysis when the stepwise method is used. Virtually the same level of classification emerges as shown in Table-4.11. Interestingly, the original and cross-validated results are almost identical.

List of graphs

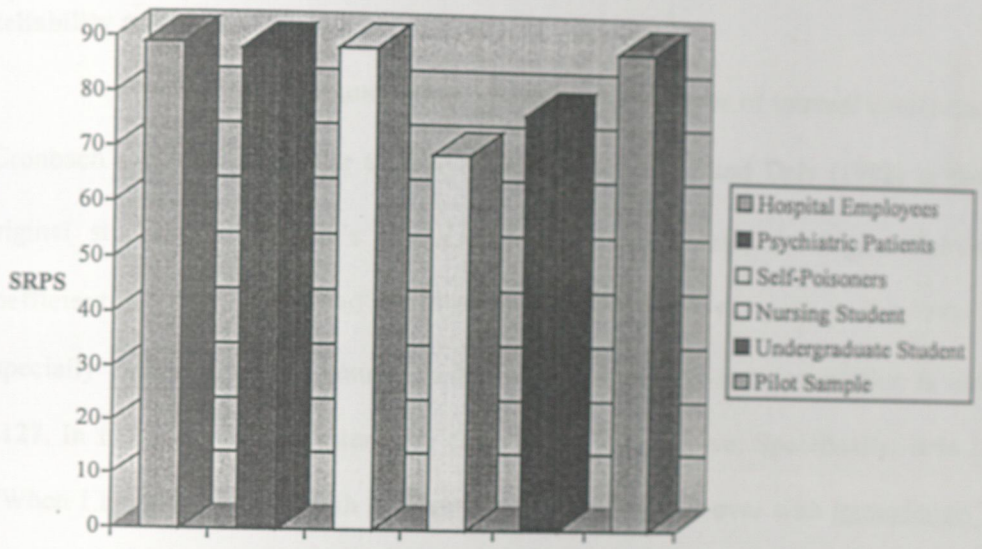
Figure- 4.1. Pilot sample composition by level of ideation



Suicidal behaviour

The sample was divided into different levels of ideation based on the Suicidal History Scale (Figure-4.1). Approximately, one in four Ideators had thoughts that included 'a fairly detailed plan' (Planners). Two of these had attempted self-harm.

Figure-4.2. Comparison of SRPS scores for pilot sample and earlier studies



Problem solving

Scores on problem solving ability were calculated using the Self-Rating Problem Solving (SRPS) scale scoring keys (McLeavey et al., 1987). Analysis was based on score calculated for 102 students, as seventeen respondents had returned incomplete protocols.

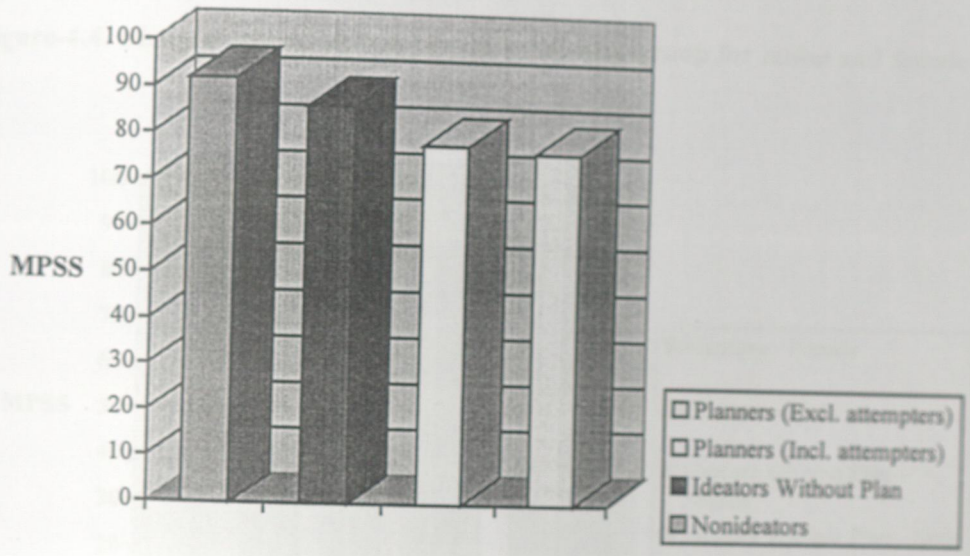
The mean score was 88.93 (out of possible 125) with a standard deviation of 9.45. Figure-4.2 compares the mean score (and 95% confidence intervals for the mean) for the pilot sample with groups tested by McLeavey & Daly (1988). The pilot

sample results are very similar to those obtained for undergraduate students, nursing students and hospital employees.

Reliability analysis

The SRPS was found to have a satisfactory degree of internal consistency (Cronbach's α=0.773, similar to that found by McLeavey and Daly (1988) in their original studies (Cronbacha's α=0.750). To a large extent, the high reliability coefficient is a consequence of the high number of items in the scale (n=25). This is especially clear when one considers that the average inter-item correlation is only 0.127. In fact, 18% of the inter-item correlations are negative. Specifically, item 13 ("When I have a problem with another person I try to get it over with immediately") and item 24 ("There is only one good solution to every problem") correlate negatively with the sum of the remaining items (-0.364 and –0.187, respectively) whereas they should have strong positive associations.

Figure-4.3. Mean problem solving score by Ideator group

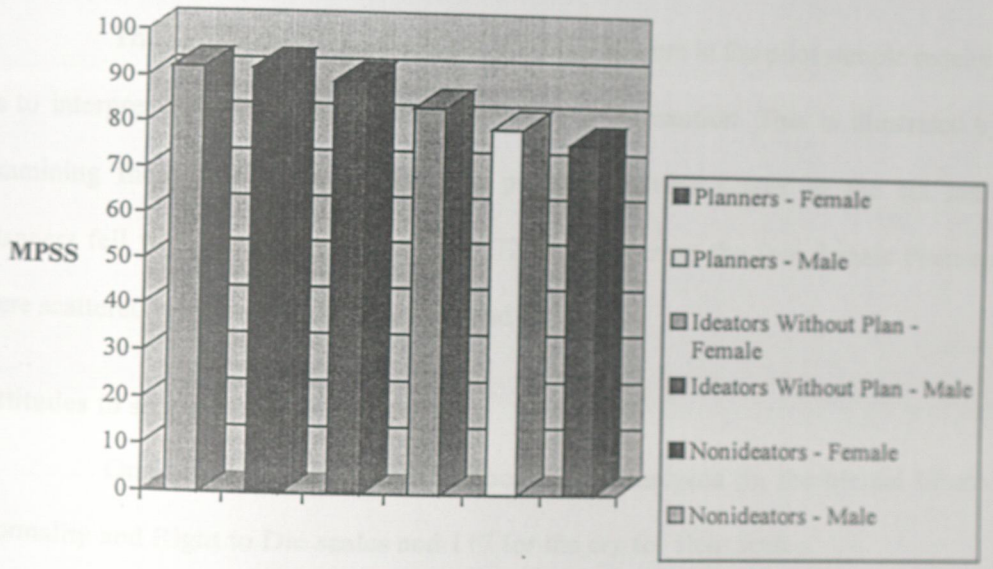


Nonideators v Ideators v Planners

The mean problem solving scores for Nonideatos (63), Ideators (29) and Planners (10) were compared (Figure-4.3). Data reduction was due to incomplete protocols for 17 respondents. One-way analysis of variance indicated that these differences were significant ($F=14.33$, $df = 2$ and 99, $p<0.001$). All post hoc pairwise comparisons showed significant differences according to Tuckey's Honestly Significant Difference. Planners' were on average 14.1 (15.3%) and 8.2 (9.5%) lower than Nonideators ($p<0.001$) and Ideators without a plan ($p<0.024$), respectively. Ideators without a plan averaged 5.8 (6.4%) lower than Nonideators ($p=0.007$). To

check for a potential biasing effect of the two attempters in the planner group, a second comparison was performed excluding attempters. The difference in mean problem solving scores between the Planners and the other two groups was even more marked.

Figure-4.4. Mean Problem-solving score by ideator group for males and females



Gender and problem solving

The mean problem solving scores of males and females were 89.67 and 88.28, respectively, a non-significant difference (t=0.74; df = 100; p=0.283).

Female problem solving scores at each ideation level

The mean problem solving scores for female Nonideators (n=34), Ideators (n=16) and Planners (n=4) are shown in Figure-4.4. One way analysis of variance

indicated that these differences were significant ($F=8.35$, $df = 2$ and 51, $p=0.001$). In the case of the females, the post hoc pair wise comparison showed that the Non-ideators differed significantly from the other two groups- on average, Ideators without a plan and Planners was 8.29 (9.0%) ($p=0.012$) and 15.91 (17.3%) ($p=0.005$) lower than Non-ideators, respectively. Female Ideators and Planners did not differ significantly.

The small number of male and female Planners in the pilot sample requires us to interpret inferences based on their means with caution. This is illustrated by examining their individual scores. The problem solving scores of the six male Planners fell within the narrow range of 72 to 86 whereas the four female Planners were scattered with scores of 54, 73, 84 and 93.

Attitudes to suicide

One hundred and sixteen protocols were analysed for the Mental Illness, Normality and Right to Die scales and 117 for the cry for Help scale.

Reliability analysis of clinical scales

The Mental Illness scale consisting of 13 items yields a moderate reliability coefficient ($\alpha=0.592$). The mean inter-item correlation is just 0.099. Fifteen (19%) of the inter-item correlations are negative. The two weakest items in the scale appear to be item 8 ("A person who has tried to commit suicide is not really responsible for those actions") and items 23 ("External factors, like lack of money,

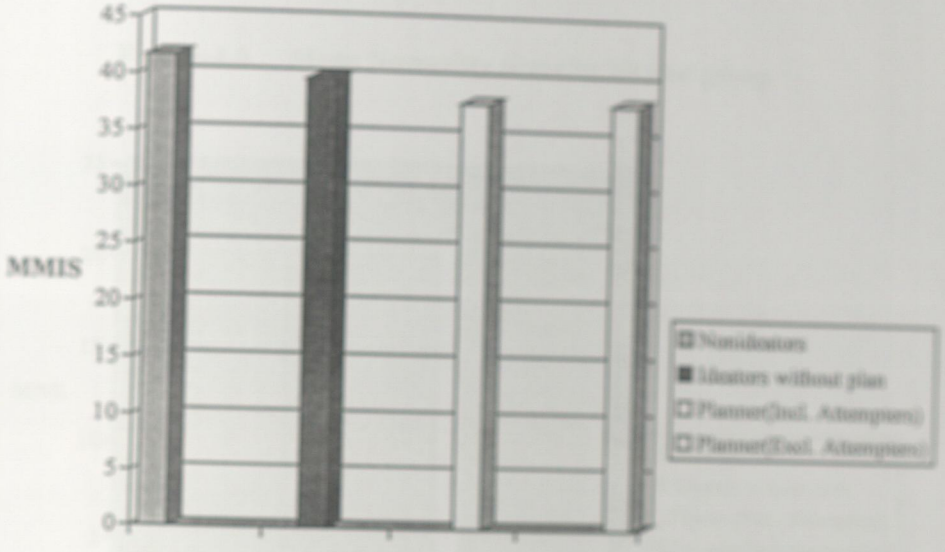
are not a major reason for suicide"). There are virtually independent of the other scale items and their exclusion would lead to an increase in the reliability coefficient.

Cronbach's alpha for all seven-item Normality scale is 0.633. The mean inter-item correlation is 0.193. Item 7, ("From an evolutionary point of view suicide is a rational means by which the less mentally fit are eliminated") correlates negatively with five of the six other items. These are the only negative inter-item correlations. Exclusion of this item from the scale would increase the reliability coefficient to 0.700.

The eight-item Right to Die scale is highly reliable as measured by Cronbach's alpha coefficient (α=0.815). The mean inter-item correlation is 0.347. Item 15 ("Crisis help line centres e.g. the Samaritan, actually infringe on a person's right to take his own life") has the lowest correlation with the sum of the remaining items (r=0.2275) and is the only item whose exclusion would lead to an increase in the reliability coefficient. Item 40 (People do not have the right to take their own lives") is strongly related to the remainder of the scale (r=0.729). Its exclusion would cause Cronbach's alpha to fall to 0.761.

The Cry for Help scale with 12 items has a low to moderate reliability coefficient (α=0.501). The items appear to be independent of each other with a mean inter-item correlation of just 0.071. Eighteen (27%) of the inter-item correlations are negative. Only three items (22, 24 and 29) have correlation coefficient greater than 0.25 with the sum of the remaining items. Excluding any one of these would cause the reliability coefficient to drop to between 0.410 and 0.427.

Figure-4.5. **Mean Mental Illness score by ideator group**
Planners (excl attempters) 38

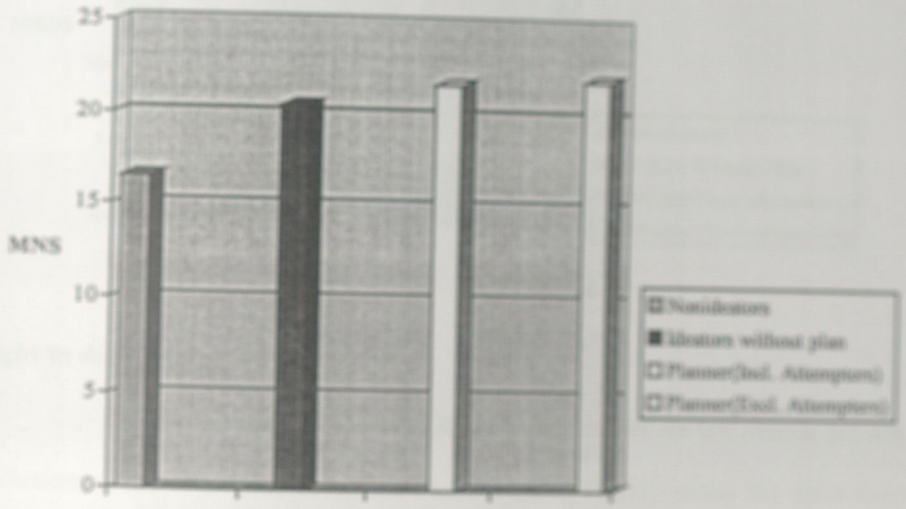


Non-ideators Vs. Ideators Vs. Planners

Mental illness

There is a stepwise decrease in the level of agreement with the Mental Illness scale as one move from Non-ideators through to Planners as shown in Figure-4.5. The exclusion of the attempters from the Planner group has no effect on the mean score. One-way ANOVA indicated that the differences between the groups are significant ($F=3.96$; $df=2$ and 113; $p=0.002$). Post-hoc tests indicated that Planners were significantly less in agreement with the Mental Illness scale than Non-ideators ($p=0.038$).

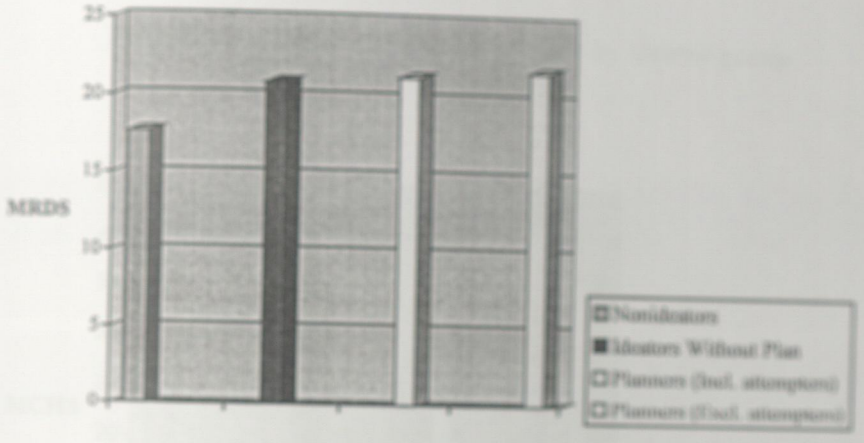
Figure-4.6. Mean Normality score by ideator group



Normality

The mean Normality scores for the ideator groups are shown in Figure-4.6. The attempters have little or no effect on the mean score for the planners. One-way ANOVA indicated that the groups differ significantly ($F=17.86$; $df=2$ and 113; $p<0.001$). Post-hoc analysis revealed that Non-ideators were significantly different to both Ideators ($p<0.001$) and planners ($p<0.001$). They were less in agreement with the attitude that suicide is a normal behaviour in which anyone might engage.

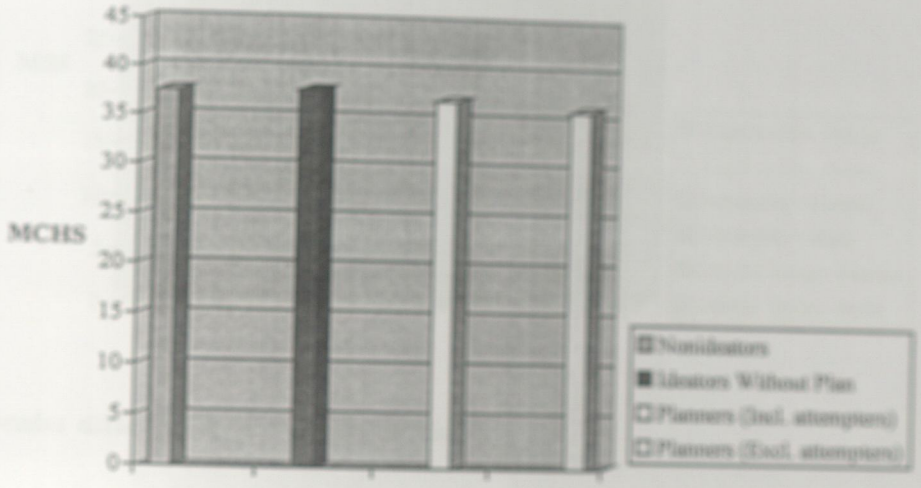
Figure-4.7. Mean Right to Die score by ideator group



Right to die

Figure-4.7 shows the mean Right to Die scores for the ideator groups. The exclusion of the attempters from the Planner group slightly raises the mean score but not markedly. One-way ANOVA indicated that the observed differences are significant ($F=4.87$; $df=2$ and 113; $p=0.009$). Post-hoc tests revealed that Non-ideators were significantly different from Ideators without a plan ($p=0.018$) in that they were less in agreement with the attitude that people have the right to take their own lives in certain circumstances. Despite the fact that the mean difference between Non-ideators and Planners is greater, it failed to reach statistical significance ($p=0.113$). This is a consequence of the small number of Planners.

Figure-4.8. Mean Cry for Help score by ideator group

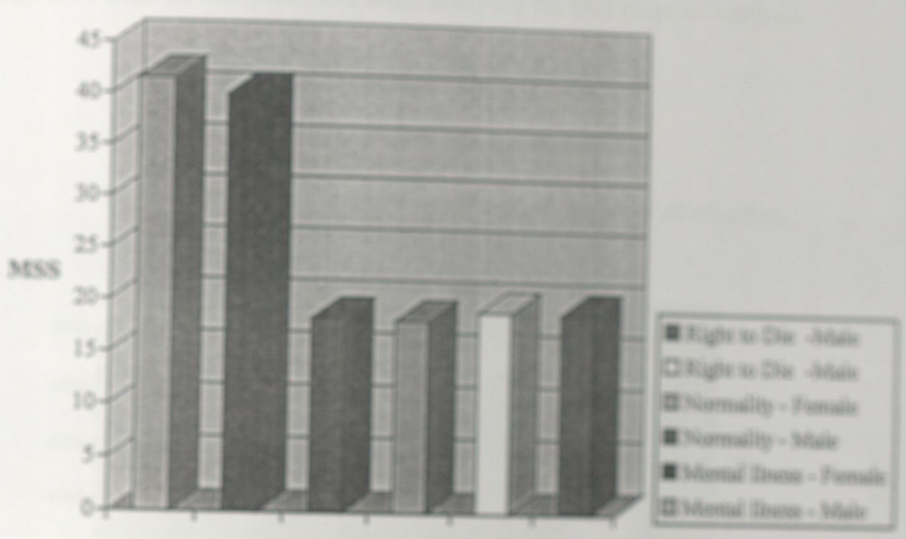


Cry for help

Mean scores for the Cry for Help scale is shown in Figure-4.8. Exclusion of the attempters slightly lowers the mean score for the Planner group. One-way ANOVA indicated that there were no significant differences between groups ($F=0.21$; $df=2$ and 114; $p=0.814$).

On the basis of the differences observed in the attitudes, the Normality scale appears to be a powerful discriminator between three ideator groups.

Figure-4.9. Mean SOQ scores by gender



Gender differences in attitudes to suicide

Attitudes to suicide are compared for males and females in Figure-4.9. The mean differences are not statistically significant for any of the four scales- Mental Illness (t=1.59; df=100; p=0.115), Normality (t=0.22; df=114; p=0.824), Right to Die (t=0.10; df=103; p=0.922), and Cry for Help (t=0.98; df=115; p=0.330).

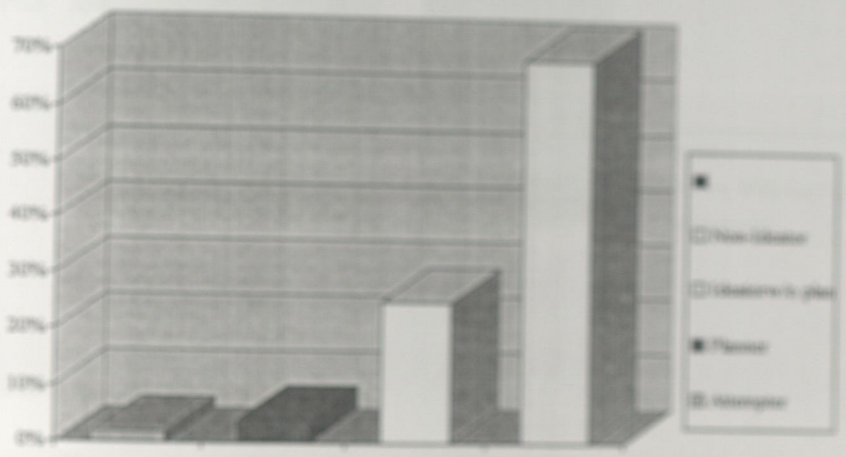
Analysis 2: First time responses

Sample (Study 1 & 2 respondents and Study 3 first time respondents).

The second level of analysis of results was carried out on the entire data set of first time respondents as described at the beginning of the results section i.e. all

protocols from Study 1 (pilot), Study 2 and protocols of first-time respondents in study 3. A total of 350 protocols were analysed for this stage of analysis.

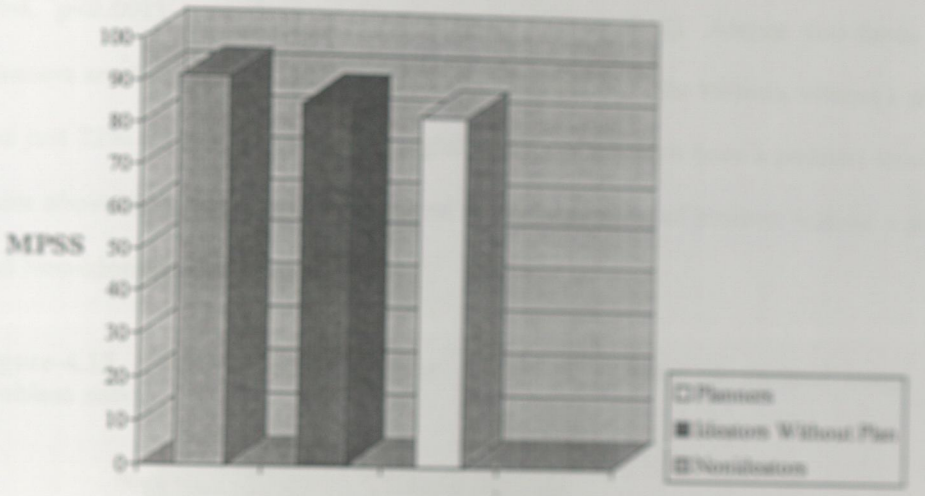
Figure-4.10. The sample composition by level of ideation



Suicidal behaviour

The breakdown of all 350 students into the different levels of ideation based on the Suicide History Questionnaire is shown in Figure-4.10. Over two-thirds have never considered suicide (Non-ideators) in their lifetime whereas six of the 21 Planners have engaged in self-harm (2% of the total sample).Samples one and three each had two attempters, and samples two and four each had one attempter.

Figure-4.11. Mean problem solving score by ideator group



Non-Ideators v Ideators v Planners

The mean problem solving scores for Non-ideators (198), Ideators (77) and Planners (17) are compared in Figure-4.11. Data reduction was due to incomplete protocols for 58 respondents. One-way analysis of variance indicated that these differences were significant ($F=16.48$, $df=2$ and 298, $p<0.001$). Post hoc pair wise comparisons showed the Non-ideators to be significantly different from the other two groups. They were on average 5.77 (6.8%) and 8.73 (10.6%) higher than ideators without a plan ($p<0.001$) and Planners' ($p<0.001$), respectively. Ideators without a plan averaged 2.96 (3.6%) higher than Planners ($p=0.435$).

Beck, A.T., Resnik, H.L.P. & Lettieri, D.J. (Eds.) (1974). *The prediction of suicide.* Philadelphia, Pennsylvania: Charles Press.

Beck, A.T., Schuyler, D. & Herman, J. (1974). Development of suicidal intent scales. In A.T. Beck, H.L.P. Rensik, & D.J. Lettieri, (Ed.) *The prediction of suicide.* Philadelphia, Pennsylvania: Charles Press.

Beck, A.T., Weissman, A., Lester, D & Trexler, L. (1974). The measure of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology,* 42, 861-865.

Beskow, J. (1979). Suicide and mental disorders in Swedish men. *Acta Psychiatrica Scandinavica, Suppl. 277.*

Bille-Brahe, U. (1997). Suicidal behaviour among children in Europe. Paper presented at the world federation for mental health congress, Lahti.

Bille-Brahe, U. (1998a). Sociology, gender differences and suicidal behaviour. Plenary address delivered at the 7th European symposium on suicide and suicidal behaviour's Conference, Gent.

Bille-Brahe, U. (1998b). Presented in a conference on Suicidal behaviour in Europe: The situation in the 1990s. Copenhagen Conference: World health organisation regional office for Europe .

Boismont de, B. (1856). *De Suicide et de la Folie Suicide.* Paris: Germer. In Rosen, G.91971). History in the study of suicide. *Psychological Medicine,* 1, 267-285.

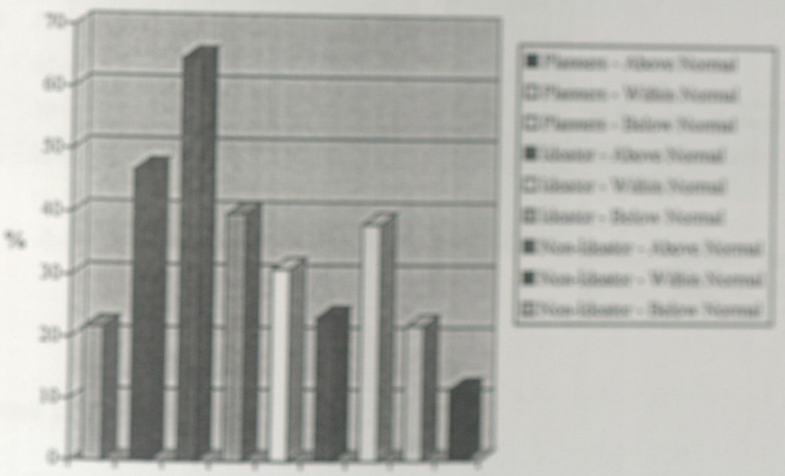
Boldt, M. (1982). Normative evaluations of suicide and death: A cross-generational study. *Omega,* 13(2), 145-157.

Boldt, M. (1987). Defining suicide: Implications for suicide behaviour and for suicide prevention. *Crisis,* 8(1), 3-13.

Bonner, R.L. & Rich, A.R. (1987). Toward a predictive model of suicidal ideation and behaviour: Some preliminary data in college students. *Suicide and Life-Threatening Behaviour,* 17(1), 50-63.

The distribution of respondents in relation to the normal range of problem solving established for all students sampled varies significantly (Chi-square=26.9; *df*=4, $p<0.001$) according to ideator group (Figure-4.12). Almost two-thirds of Planners are below the normal range as are almost half of the Ideators without a plan and just 22% of Non-ideators. One eighth (12%) of Planners have a problem solving score above the normal range compared to 22% and 38% of Ideators without a plan and Non-ideators, respectively.

Figure-4.12. Distribution of ideator groups in relation to normal range of problem solving

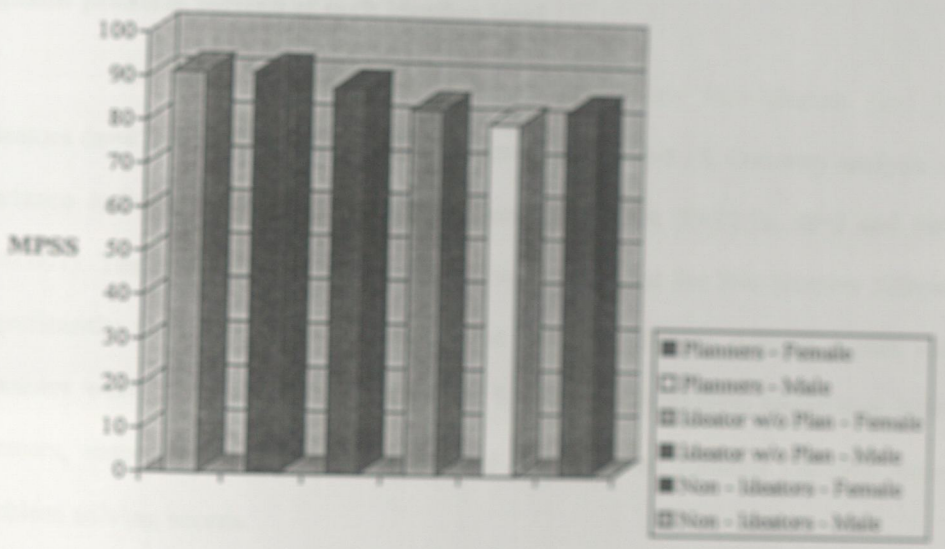


Attempters' problem solving

The mean problem solving score for Attempters is 83.8, which is similar to the mean for Planners (82.5). However, scores are available for just five individuals and are quite varied (two female cutters scored 72 and 73 while the other three

Attempters- one male who both cut and overdosed- and two females who took overdoses- had scores of 90, 91 and 93 respectively.

Figure-4.13. Mean problem solving score by ideator group for males and females



Gender and problem solving

The mean problem solving scores of males and females were 89.65 and 88.76, respectively, a non-significant difference (t=0.80; df=291; p=0.425).

Male problem solving at each ideation level

The mean problem solving scores for female Non-ideators (n=43), Ideators (n=30) and Planners (n=7) are shown in Figure-4.13. One-way analysis of variance

indicated that these differences were significant (F=5.40, df=2 and 117, p=0.006). Post hoc pair wise comparisons showed the Planners to be, on average, 10.41 (11.42%) and 7.39 (8.39%) lower than Non-ideators (p=0.008) and Ideators without a plan (p=0.109), respectively. Male Non-ideators and Ideators without a plan had similar problem solving score

Female problem solving at each ideation level

The mean problem solving scores for female Non-ideators (n=115), Ideators (n=47) and Planners (n=10) are shown in Figure-4.13. One-way analysis of variance indicated that these differences were significant (F=12.95, df=2 and 169, p<0.001). The post hoc pair wise comparisons showed that the Non-ideators differed significantly from the other two groups an average, Ideators without a plan and Planners were 7.53 (8.3%) (p<0.001) and 7.55 (8.3%) (p=0.033) lower than Non-ideators, respectively. Female Ideators and Planners had virtually identical mean problem solving scores.

The small number of male and female Planners in the sample requires conservative interpretation of their means. This is illustrated by examining their individual scores (n=17). The problem solving scores of the seven male Planners fell within the narrow range of 72 to 90 whereas the ten female Planners were scattered with scores between 54 and 105.

Attitudes to suicide

Three hundred and forty-two protocols were analysed for the Mental Illness, Normality and Right to Die scales 343 were examined for the Cry for Help scale.

Reliability analysis of clinical scales

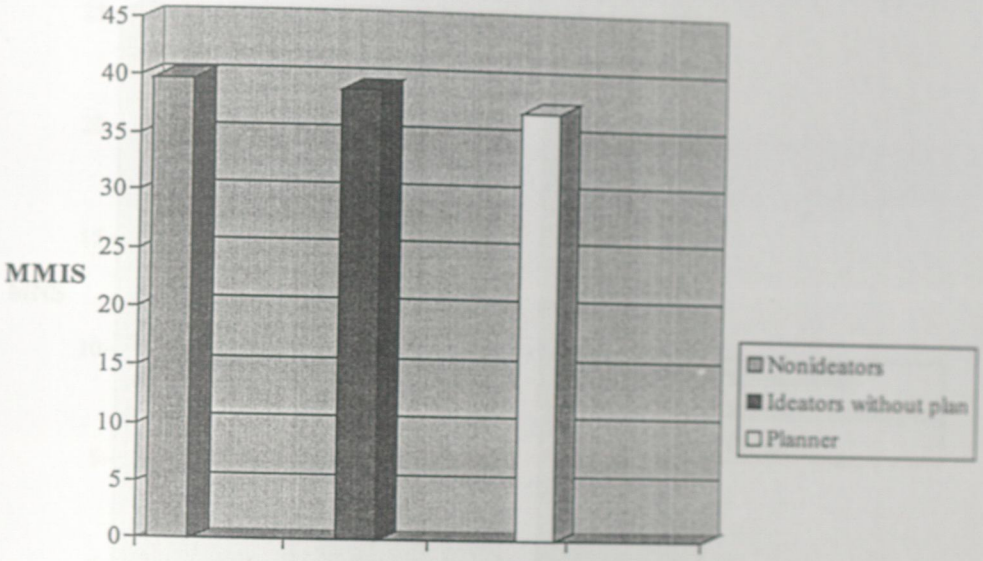
The mental Illness scale consisting of 13 items yields a moderate reliability coefficient (α=0.577). The mean inter-item correlation is just 0.094. As for the Pilot study, fifteen (19%) of the inter-item correlations are negative. Again, the two weakest items are item 8 "(A person who has tried to commit suicide is not really responsible for those actions)" and item 23 "(External factors, like lack of money, are not a major reason for suicide)". They are virtually independent of the other scale items and their exclusion would lead to an increase in the reliability coefficient.

Cronbach's alpha for the seven-item Normality scale is 0.538, which is notably lower than for the Pilot study (α=0.633). The mean inter-item correlation is 0.133. Again, item 7 ("From an evolutionary point of view suicide is a rational means by which the less mentally fit are eliminated") correlates negatively with five of the six others and these are the only negative inter-item correlations. Exclusion of this item from the scale would increase the reliability coefficient to 0.633).

The eight-item Right to Die scale also has a lower Cronbach's alpha coefficient (α=0.746) in Analysis 2 than for the Pilot study (α=0.815). The mean inter-item correlation is 0.261. Again, item 15 ("Crisis help line centres e.g. the Samaritans, actually infringe on a person's right to take his own life") has the lowest correlation with the sum of the remaining items (r=0.143) and is the only item whose exclusion would lead to an increase in the reliability coefficient. Item 40 ("People do not have the right to take their own lives") is strongly related to the remainder of the scale (r=0.623). Its exclusion would cause Cronbach's alpha to fall 0.679.

The Cry for Help scale with 12 items has a lower reliability coefficient (α=0.451) than for the Pilot study (α=0.501). The items appear to be independent of each other with a mean inter-item correlation of just 0.061. Nineteen (29%) of the inter-item correlations are negative. Only three items (22, 24 and 29) as in the case of the pilot study have correlation coefficients greater than *0.25* with the sum of the remaining items. Excluding either of these would cause the reliability coefficient to drop to between 0.361 and 0.387.

Figure-4.14. Mean Mental Illness score by ideator group

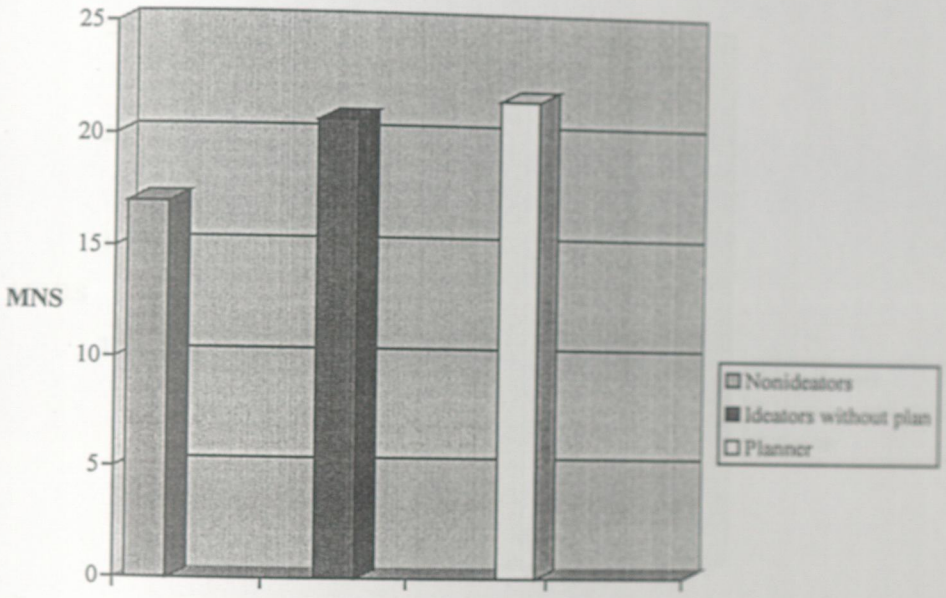


NON-IDEATORS VS. IDEATORS VS. PLANNERS

Mental illness

Scores on the Mental Illness scale among the ideator groups are shown in Figure-4.14. One-way ANOVA indicated that the observed differences just fail to be statistically significant ($F=2.93$; $df=2$ and 339; $p=0.055$).

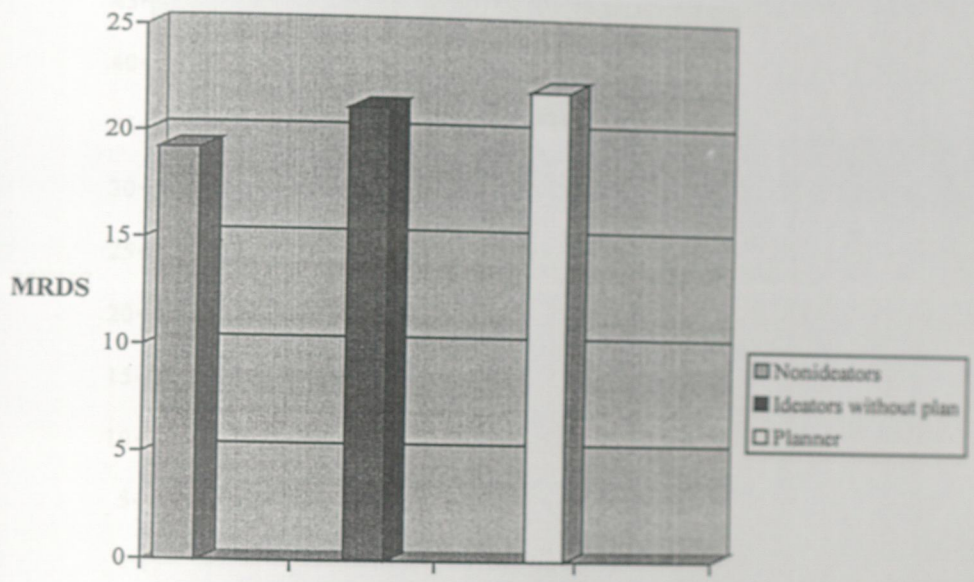
Figure-4.15. Mean Normality score by ideator group



Normality

The mean Normality scores for the ideator groups are shown in Figure-4.15. One-way ANOVA indicated that the groups differ significantly ($F=49.19$; $df=2$ and 339; $p<0.001$). Post-hoc analysis revealed that Non-ideators were significantly different to both Ideators without a plan ($p<0.001$) and Planners ($p<0.001$). They were less in agreement with the attitude that suicide is a normal behaviour in which anyone might engage.

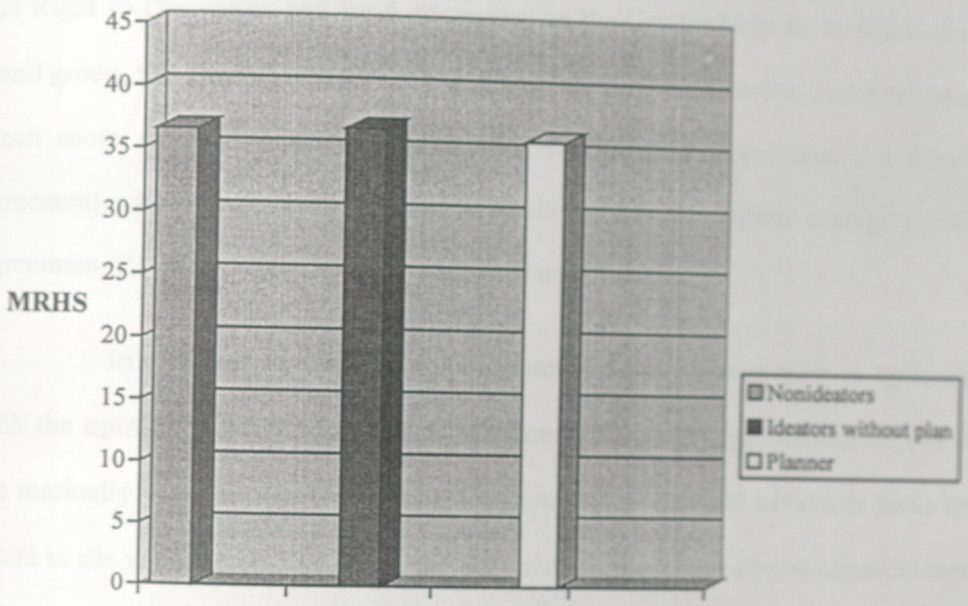
Figure-4.16. Mean Right to Die score by ideator group



Right to die

Figure-4.16 shows the mean Right to Die scores for the ideator groups. One-way ANOVA indicated that the observed differences are significant ($F=8.71$; $df=2$ and 339; $p<0.001$). Post-hoc tests revealed that Nonideators are significantly different to both Ideators without a plan ($p=0.001$) and Planners ($p=0.015$) in that they are less in agreement with the attitude that people have the right to take their own lives in certain circumstances.

Figure-4.17. Mean Cry for Help score by ideator group



Cry for help

Mean score for the Cry for Help scale is shown in Figure-4.17. One-way ANOVA indicated that there were no significant differences between groups (F=0.34; df=2 and 340; p=0.714).

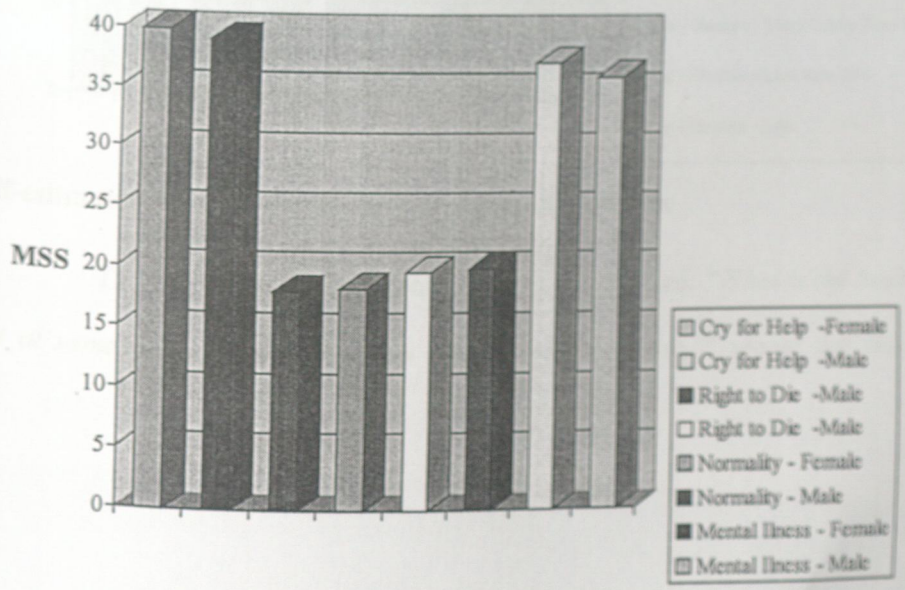
In terms of differences observed in attitude scores, the Normality scale appears to be a powerful discriminator between the three-ideator groups.

Attempters' attitudes to suicide

Scores were available for all 6 attempters on the Mental Illness, Normality and Right to Die scales and for 5 attempters on the Cry for Help scale. With such a small group, the conclusions that can be drawn can only be tentative. The Attempters' mean score on the Mental Illness scale (36.67) indicates that they are least in agreement with this attitude. For the Normality factor, Attempters average level of agreement (21.17) is between that of Ideators and Planners.

In response to the Right to Die factor, Attempters were more in agreement with the opinion (22.83) compared to the three ideators groups. Attempters (40.40) are markedly more in agreement with the opinion that suicidal behaviour lacks real intent to die whereas Non-ideators, Ideators and Planners have almost identical mean scores.

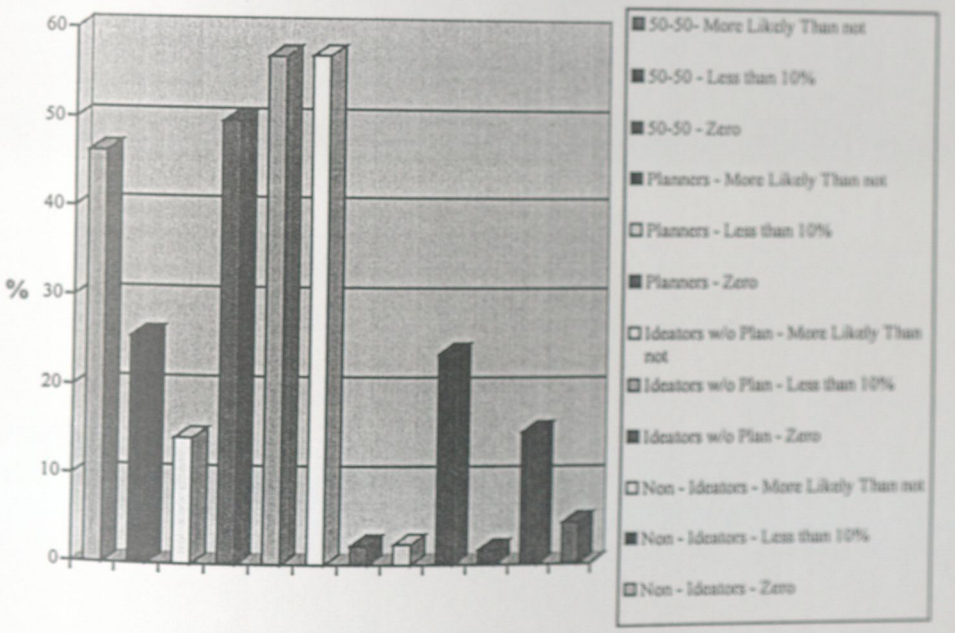
Figure-4.18. Mean SOQ scores by gender



Gender differences in attitudes to Suicide

Attitudes to suicide are compared for males and females in Figure- 4.18. The mean differences are not statistically significant for the Mental Illness (t=1.59; df=100; p=0.115), Normality (t=0.223; df=114; p=0.824) or Right to Die (t=0.1; df=103; p=0.922) scales. With the Cry for Help scale, males were more in agreement with the attitude that suicidal behaviour lacks real intent (t=0.98; df=115; p=0.330).

Figure-4.19. Self-appraisal of lifetime probability of attempting suicide by ideator group



Self-estimated lifetime probability of attempting suicide

The majority of respondents (60.5%) when asked: *"What is the probability that at some point in your life you might attempt suicide?"* would not rule out a

suicide attempt at some stage in their lifetime. The pattern of responses across the three-ideator groups is summarised in Figure-4.19. Almost half of the Non-ideators felt that there was no chance that they might at some time make a suicide attempt whereas this was the case for a quarter of Ideators and for only one in seven Planners.

Almost one quarter of Planners felt that it was more likely than not that they would make an attempt at suicide in the future. Only 2% of Non-ideators and Ideators gave this response.

CHAPTER-V

DISCUSSIONS

DISCUSSION

The main study findings indicate that lifetime suicidal ideation – even in the absence of self-harm- is a meaningful measure of suicide risk. The observed differences between respondents with and without a history of ideation confirm that it is accompanied by specific cognitive correlates, including attitudes to suicidal behaviour as normal and a person's right; and poorer perceptions of interpersonal problem solving ability. The relationship between problem solving and ideation is non identical for males and females. These findings have implications for the development of screening measures for suicide risk.

The present sample was examined in terms of lifetime ideation history. Interpersonal problem solving ability and attitudes to suicide- including the opinions that suicidal behaviour is related to mental illness; is normal; an individual's right; and lacking in real intent- were measured in terms of their ability to distinguish between respondents with and without a history of ideation. Scores obtained by respondents who had attempted suicide were also examined. When results from an initial pilot study confirmed some of the hypothesised differences, additional samples were measured to ascertain whether these differences would remain. Problem solving was examined for each gender separately across all ideation levels (Nonideator, Ideator and Planner) as it was suspected that response patterns would differ in each case. Attitudes to suicidal behaviour were also examined for each gender separately.

In order to examine the relationship between ideation and these cognitive variables more closely, correlations of ideation characteristics of severity, frequency and persistence with problem solving and attitudes were also explored. The reliability of all five-scale measures was examined through a follow-up measure after a retest interval of seven months. Finally all five measures were used as potential predictor variables in correctly classifying respondents into their appropriate ideator group.

Suicidal ideation history was measured by asking respondents whether they had ever seriously considered suicide. One-third of the overall sample had engaged in suicidal ideation (almost forty per cent of the pilot sample) and were categorised as Ideators. Approximately one in five ideators had thoughts that included *'a fairly detailed plan'* (one-quarter of ideators in the pilot study) and were categorised as Planners. In turn a small number of Planners (two per cent of the overall sample) had made suicide attempt. All planners including Attempters came from the ideators group. Level of ideation was found to be independent of gender. In fact the proportion of males and females at all three ideation levels was equal.

While one-third of all respondents had prior ideation, only two per cent had ever engaged in self-harm. All attempters had ideation in which they had formulated a fairly detailed plan. This finding would suggest that enquiring about a plan of self-harm is a useful index of suicidal intent. Contemplation of suicide is an important feature of the suicidal process. This "process" or "hierarchical" model (Beskow, 1979; Bonner and Rich, 1987; Leenaars *et al*., 1997)- which proposes an incremental continuum of suicide potential, proceeding from vague thoughts to more

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detailed plans, attempts and completions- is in part supported by the group sizes obtained in the present study.

One of the main objectives was to examine the association between suicidal ideation and appraisal of own problem solving. Respondents who had never engaged in ideation (Non-ideators) scored on average significantly better on problem solving than Ideators and Planners separately. Those who had entertained suicidal ideation and articulated a plan (Planners) had the lowest mean score of all three groups. In the pilot study, Planners were significantly poorer than Ideators who had never formulated a plan of self-harm, although in the second stage of analysis this statistically significant difference was not maintained. Cognitions referring to the self- particularly self-evaluations and self-appraisals in terms of coping ability – have been associated with suicidality (McLeavey; 1986; McLeavey *et al.*, 1987, 1994; Dixon, Heppner & Rudd, 1994). Among those without a history of parasuicide, suicide ideators have been found to have significantly poorer of self-efficacy than non-ideators (Kuda, 1994).

Problem solving difficulties were greater in those who had a history of ideation and they were most evident in those who had both considered suicide and made a plan. Yet despite the significantly poorer problem solving of Ideators and Planners, only a minority of Planners had attempted suicide. This appears to support the consensus that suicidal ideation is a low risk, common factor among nonclinical population samples (Bonner and Rich, 1987; Strang and Orlofsky, 1990). Other studies have found that hopelessness, helplessness and lack of adaptive reasons for

living distinguish ideators who self- harms from those who do not (Bonner and Rich, 1987; Linehan *et al.*, 1983; Strang and Orlofsky, 1990; Teicher and Jacobs, 1996). As the present study was carried out retrospectively, no populations can be made about the risk of self-harm associated with poor problem solving in respondents who have a history of suicidal ideation.

The finding suggests that problem-solving difficulties persist after ideation. Problem solving was poorer amongst respondents who had a history of ideation and poorest among Planners. One problematic assumption is that these difficulties are present at a similar level prior to the behaviour. Although this study cannot confirm whether this is the case, it does verify that those who have engaged in ideation have problem solving difficulties that distinguish them from those without such a history. Nonetheless, this might have arisen because attitudes and perceptions are reactive to behaviour. Engaging in ideation or self-harm may adversely affect Ideations', Planners' and Attempters' perceptions of their own problem solving ability. This in turn would have implications for subsequent coping and risk of repeated self-harm, which may partly explain why people who self-harm are at significantly greater risk of suicide. Most studies- including the present one- are retrospective and do not monitor changes in cognition. Further work would require a longitudinal study of poor problem solvers to estimate the risk of suicidal ideation.

Problem solving deficits may by concomitant with suicidal ideation rather than causal and therefore no assumption can be made about problem solving ability prior to ideation. On the basis of a longitudinal study of hospitalised suicide ideators,

Schotte, Cools and Payvar (1990) found that ideation, depression, and hopelessness subsided over time and were accompanied by improved problem solving. Due to the limitations of retrospective design, the present study can make no assumptions about the causal direction between suicidal ideation and problem solving or even whether the relationship is a causal one.

Scores obtained on the SRPS were not homogenous for any of the ideation level examined in the present study. The range of problem solving scores was very wide in all three ideation groups and also among attempters. Respondents who were at risk of ideation in the future might account for low scores among Non-ideators. High scores among Ideators would suggest that perceived problem-solving deficits might not be necessary correlate of suicidal ideation. The sample in the present study did not yield sufficient suicide attempters to draw any conclusions about the problem solving correlates of self-harm as distinct from ideation.

In order to establish whether the observed problem solving differences between ideation levels were clinically significant, the normal range for problem solving was calculated for the total sample of respondents. The distribution of respondents around the normal range varied significantly according to ideator group. The hypothesised pattern of relationships between ideation level and problem solving score seems to have held. Most planners fell below the normal range, and Ideators fell in-between, with almost half scoring below the normal range and just over half falling within or above the normal range. Almost two-thirds of Planners were below the normal range, while only one-fifth of Non-ideators fell below the range. At the other

extreme, only approximately one-tenth of Planners scored above the normal range. In fact only one-third of all Planners scored either within or above the normal range, while more than three-quarters of all Non-ideators fell within or above the normal range.

Despite the lack of gender difference in mean problem solving scores overall, distinct problem solving patterns emerged for males and females, when examined by gender and ideator group. Male Planners were significantly poorer at problem solving than male Ideators and Non-ideators separately. Unlike the pattern found with males and females combined, male Ideators did not differ significantly from male Non-ideators on problem solving. In the case of females however, Ideators and Planners were significantly poorer problem solvers than Non-ideators. As distinct from the entire male and female sample, female Ideators and Planners were not significantly different on the SRPS but male Ideators and Planners were.

Although it is difficult to interpret these differences in problem solving pattern, they are particularly interesting in a group where no mean gender difference emerged over all; in which the numbers of males and females at each level of ideation were almost identical, and also given that male and female Non-ideators had equivalent problem solving scores. It would seem that the association between ideation and problem solving is different in males and females. The problem-solving threshold for ideation without a plan may be higher (lower score) in females, as the average score for female Ideators was considerably lower than that for male Ideators. In the case of serious ideation (planning) the problem-solving threshold may be higher

in males than in females, as the mean SRPS score for male Planners was lower than that for female Planners.

The problem solving correlates of ideation was therefore not identical for males and females. Interpretations of the present data must be made with caution however, as the sample size for Planners was small, particularly when problem solving was examined for each gender group separately. However the main differences seem to emerge between the male and female Ideator scores. In the case of males, Ideators were similar to Non-ideators, while in the case of the females, Ideators were similar to Planners. This suggests that the relationship between problem solving and ideation is distinct for each gender. In terms of the females, Ideators and Planners were most similar in problem solving, while Non-ideators appear to be a distinct problem-solving group.

A number of significant attitudinal differences also emerged between ideator groups. Ideators and Planners in the overall sample were significantly more in agreement than Non-ideators with the attitudes that suicidal behaviour is normal and that people have a right to take their own lives in certain circumstances. Ideator groups did not differ significantly from one another on either the Mental Illness or the Cry for Help scales, although in both cases, Planners were least in agreement with these opinions.

In the pilot study, Planners were also significantly less agreement with the Mental Illness scale than Non-ideators. These attitudinal differences suggest

consistency between respondents' ideation history and their orientation to suicidal behaviour.

Males in the main sample were significantly more in agreement with the attitude that suicidal behaviour lacks real intent (the Cry for Help scale), in other words that non-fatal suicidal behaviour is not serious, although no significant difference was found between ideator groups on this scale. This attitude difference may be important in light of the large male: female suicide ratio in the western world (Canetto, 1997). It may reflect the greater male tendency to use suicidal behaviour as a last option or exit. No other significant gender differences were observed for the Mental Illness, Normality or Right to Die scales, in contrast with the observed differences between ideator groups. Gender differences in attitudes to suicide have frequently been absent in studies using college student samples (Wellman & Wellman, 1986). In view of the significant ideator group differences, attitudes may relate more to ideation history than to gender. However a wide range of attitudes would need to be examined to establish whether the impact of suicidal behaviour history is greater than that of gender.

People who regard suicidal behaviour as both normal and an individual's right may be particularly inclined to accommodate the idea of self-harm as an option for themselves. Allport (1966) has observed that attitudes exert a direct and vital influence on an individual response, including suicidal response (Leenaars, 1998, personal correspondence). On the other hand, a history of ideation may also impact on

attitudes to suicidal behaviour. The present study is retrospective and can therefore make no assumptions about the causal direction of attitudes and ideation.

Weak liner relationships were found between ideation severity, frequency and persistence and some of the scale measures. Ideation severity and persistence correlated negatively and significantly with problem solving, indicating that of those respondents with ideation, those with more severe and persistent ideation tended to have poorer problem solving. In addition, scores on the Mental Illness scale were significantly negatively correlated with ideation severity, so that those who reported having more severe ideation tended to disagree more with the view that suicidal behaviour is indicative of mental illness. Those with more severe ideation were also more inclined to think of suicidal behaviour as serious and less inclined to think of it as a cry for help. Right to Die scores correlated positively with ideation frequency. It may be that attitudes regarding suicidal behaviour as a right impact on whether or not one engages in suicidal ideation but not on the quality of the ideation itself.

Ideation histories were consistent with evaluation of suicidal behaviour as a potential outcome in the future. It is difficult to extrapolate from thoughts of self-harm to overt self-harm but it was possible to address the probability of a future suicide attempt. Most respondents- Non-ideators and Ideators- indicated at least some minimal probability (less than a ten percent chance) of attempting suicide. This would suggest that in a young sample there is a degree of minimal tolerance of self-harm. However, there were also differences between ideation levels in lifetime probability of attempting suicide. The majority of those in the present sample who ruled out any

probability of attempting suicide were Non-ideators. In contrast, most of those who endorsed the possibility were either Ideators or Planners. Only a minority of respondents indicated a probability greater than 10%, but most of those who estimated their lifetime probability to be 'more likely than not' were Planners. Clearly Planners were most inclined of all three groups to regard suicidal behaviour as an option. This attitude is relevant to parasuicide. In fact suicide expectancy- which is the attitude that suicide offers a potentially useful solution to problems- has been found to distinguish ideators and parasuicides from nonsuicidal controls (Linehan *et al.*, 1987).

In the follow-up stage, mean score on all five scales (SOQ and SRPS) correlated significantly with the pilot measures. Problem solving scores displayed a significant increase at follow-up, which may be attributed to two reasons: The Pilot study was carried out directly prior to summer exams which might adversely affect respondents' ratings on self-efficacy and secondly, higher scores at follow-up might be due to a practice effect. Scores on the clinical scales were lower at follow-up. Although mean score changes were statistically significant for the Normality, Right to Die, Cry for Help and Self-Rating Problem Solving scales, the difference were small and they may not be clinically significant.

There is limited research on the differential stability of cognitive variables between genders (Schmidtke and Schaller, 1992). In the present study, test-retest correlations were significant for all five scales when examined separately for each gender. However, the mean problem solving change was highly significant for females but not for males. In fact the problem solving score change among females

was the most highly significant of all re-test differences. In the case of the males, the mean score change in problem solving was the lowest and the least significant of all scales followed-up on this measure. Problem solving appraisal seems to fluctuate more in females than in males, although the significant test-retest correlation for both genders indicates that female and male respondents retained their ranking in problem solving scores, so that those with poorest problem solving scores in the pilot study tended to have the poorest scores at follow-up.

Score changes on all five scales expressed in terms of Ideator group, indicate that test-retest correlations were significant for Non-ideators and Ideators with the exception of the Normality retest score for Ideators. In fact Ideators have the lowest test-retest correlations of all three ideator groups on all of the measures. This may in part be due to the broad range of Ideators in this group, some of whom experienced mild or infrequent suicidal thoughts and some who experienced severe frequent thoughts of self-harm. In the case of Planners group, only two of the five test-retest correlations were significant and problem solving was marginally lower for this group. These findings are likely to be due to the small sample size for Planners.

Evaluation and interpretation involve complex cognitive processes (Eysenck & Keane, 1990) and evaluation of suicide is not an exception, as Droogas, Sitter and O' Connell (1983) explain:".. The thought of suicide... depends on the person's personal and social orientation and on the nature of that person's involvement with any given suicide."

Numerous studies have found that people's attitudes to suicide vary according to whether it is presented to them as an abstract or ideological concept or as a hypothetical case in which they or a member of their family are involved (Diekstra and Kerkhof, 1988; Ginsburg, 1971). Many of the early community studies of suicide overlooked the effect of personal suicidal behaviour history on attitudes to suicide and they failed to include questions addressing this (Ginsburg, 1971; Kalish *et al.*, 1974; Sale, *et al.*, 1975). In addition, there has been a dearth of controlled longitudinal studies of attitudes to suicide of Ideators and Planners. Frequently the attitudinal aspect of the suicidal mind is neglected (Leenaars, 1998). This has resulted in confusion around the causal links between attitudes and suicidal behaviour.

The present study sought to examine whether people who have considered suicide hold attitudes to suicidal behaviour and their own coping ability that facilitate entertaining suicidal thoughts. Significant attitudinal differences emerged between Ideators, Planners and Nonideators, which suggest that any large-scale study of attitudes to suicide needs to take suicide history into account when interpreting attitudinal trends. Previous studies have also found that suicidal ideation in particular has a strong association with patterns of attitude to suicide (Etzersdorfer *et al.*, 1998; Limbacher and Domino, 1986; Linehan *et al.*, 1983). One possible explanation for the differences observed between Ideator groups is that suicidal ideation interacts with other cognitions such as beliefs, opinions, attitudes and self-evaluation (Michel *et al.*, 1997).

The main weakness in the present study is that all variables- attitudes to suicidal behaviour, attitudes to coping, self-efficacy and ideation- were measured retrospectively. Therefore no assumptions can be made about causative factors or the initiation or development of the suicidal process in any respondent. Whether poor problem solving or suicide-tolerant attitudes proceed ideation cannot be established on the basis of the present findings. Previous work has found that ideation occurs through the interaction of two or more variables such as a stressor and negative attributional style (Abramson *et al.*, 1982). In the present study all cognitive variables could only be examined in terms of their relationship with ideation history.

The 'diathesis-stress model' has been applied extensively to explain interacting relationship between ideation and other cognitions (Bonner and Rich, 1987; Clum *et al.* 1988, Schotte and Clum, 1982). According to this model, poor interpersonal problem solving is a primary risk factor for suicidal ideation. When exposed to highly stressful situation, people with problem solving deficits do not have sufficient skills to generate or use alternative solutions. Unable to alleviate accumulated stress, poor problem solvers are predisposed to suicidal ideation and hopelessness. This is one possible explanation for the observed differences between Ideators, Planners and Nonideators in the present study, but further research would need to look at the relationship between ideation, and predisposing and precipitating stressors over time.

A more appealing hypothesis on causation from the point of view of prevention, is that cognitions preceding suicidal behaviour contribute to suicide risk,

rather than being an observable outcome of suicidal behaviour- the diathesis-stress model being one such example. The opposite may be the case, as thinking about suicidal behaviour as a possible response to one's own problems (i.e. suicidal ideation) has implications for one's attitudes to suicidal behaviour generally. A person who- in the past- might have tended to regard suicidal ideation in others as strange or symptomatic of some abnormality, may be influenced by their own suicidal ideation and be motivated to change their evaluation of it. This would indicate that experiencing ideation has an effect on subsequent attitudes and evaluations. A history of ideation has been found to put a person at increased risk of self-harm (Brent, 1993b; Andrews and Lewinsohn, 1992).

In the present study, Ideators and Planners were significantly more inclined to agree with the view that people have a right to die and that suicidal behaviour is normal. This may be as a result of the experience of ideation. If a person has been in a situation where they have been suicidal, they are more likely to understand the distress that precipitates ideation, and they may begin to accommodate the idea that certain stressful situations make people feel suicidal. They may also become more tolerant of the *notion* of suicide. Ideators and Planners in the present study were also more inclined to indicate that there was greater probability that they would attempt suicide. However this tendency may be specific to the majority of Ideators and Planners who only regard suicidal behaviour as an option. The actual experience of overt self-harm may lead to different evaluations of suicidal behaviour. Linehan *et al*. (1987) found that suicidal ideators had higher estimates of the efficacy

attitudes are not necessarily related to behaviour, but we need to examine this phenomenon as it specifically applies to suicide."

Minear and Brush (1981) attribute the difficulty in establishing this link to the distinction between suicide beliefs and suicide values. They defines beliefs as people's positions on the morality and ideology of suicide, for instance the conditions under which suicide might be viewed as acceptable, such as in cases of terminal illness. These beliefs are to some extent addressed in the present study in the Right to Die clinical scale. Suicide values on the other hand are views that govern a person's orientation to suicidal behaviour and whether for example they feel they have a right to engage in it. Ideators and Planners may be more inclined to hold such values than Non-ideators, by virtue of the fact that they have considered the option for themselves. Although suicide beliefs may differ from suicide values, Minear and Brush (1981) argue that they are frequently consistent: If one is inclined to view suicide a right (belief) then one is more likely to regard it as a potential option for oneself (value). This would seem to bear out in the present study, in so far as Ideators and Planners are significantly more in agreement with the attitude that people have a right to die.

The expectancy value models of attitudes and behaviour as reviewed earlier, emphasise that the relationship between attitudes and behaviour hinges on both attitudes to the behaviour concerned, and behavioural intention, which determine orientation to the behaviour. Intention is a defining feature of suicidal behaviour and suicidal ideation in particular may be the most effective measure for estimating

suicidal intent severity. For example it may be reasonable to assume that the Planners had greater suicide intent than Ideators without a plan.

A degree of consistency emerged between behaviour, thoughts and affects. People who had considered suicide tended to regard suicidal behaviour as normal and a person's right. This consistency between attitudes and behaviour may serve to reconcile people with their past behaviour and allow them to pursue future plans. These findings are consistent with cognitive dissonance theory (Festinger, 1957), which indicates that people try to achieve consistency in their thoughts and actions; and also with the action theory perspective, which argues that behaviour is goal directed (Michel *et al.*, 1998).

The reliability of measures used in this study is important for two reasons: Firstly, the scales used to examine attitudes and problem solving in the present study provide a composite measure of each variable. For any given attitude therefore, each item should correlate with the other items in the same scale because they are measuring the same thing. Secondly, the test-retest reliability of each scale should indicate that attitudes and problem solving are relatively stable. However the attitude scales used have low inter-item correlations overall and despite the high alpha reliability obtained on the SRPS, average inter-item correlations are also low. This would indicate that most items within the scales do not measure the same thing. Domino (1996) argues that internal reliability measures are not suited to the SOQ scales because each item measures a different aspect of the attitude concerned. The

alternative is to examine the stability (test-retest reliability) of the constructs measured.

The high test-retest correlations obtained overall indicate that the attitudes and problem solving measures are relatively stable. The present findings suggest that the attributes measured are relatively enduring traits rather than states, which has two implications for the roles of these characteristics in the process of suicidal ideation and other suicidal behaviour. Firstly, if poorer problem solving and suicide-tolerant attitudes are an invariable feature of Ideators, then these characteristics become important foci in the assessment of suicide risk and in prevention efforts. Secondly as these characteristics are relatively stable while Ideators and Planners indicate that ideation itself is usually short-lived and does not endure, they are superior risk factors for assessment purposes.

A second major debate in suicide research is whether suicide prevention efforts should focus on low-risk common factors such as ideation or alternatively on high risk factors such as parasuicide or psychiatric illness (Goldney, 1998; Gunnell and Frankel, 1994). One of the strongest predictors of suicidal behaviour is past suicidal behaviour (Brent, 1993 a,b). However, Roy (1991) reports that approximately seventy percent of suicide victims die on their first attempt. In other words only thirty per cent of all suicides have made a prior attempt at self-harm. In contrast, the vast majority of suicide victims (eighty per cent) report suicidal ideation prior to committing suicide (Leonard and Flinn, 1972; Retterstol, 1993). Reported ideation

may therefore be a more useful and 'implementable' marker for suicide than prior suicide attempt.

It has been estimated that people who engage in suicidal ideation are ten times more likely to attempt suicide (Retterstol, 1993; Swedish National Program, 1995). In the present study, all self-harmers had engaged in ideation. Fatal and non-fatal suicidal behaviour appear to be sub-groups of suicide Ideators, in so far as these acts are preceded by suicidal ideation (Linehan *et al.*, 1987). In terms of preventions, ideators commit suicide is a clinical priority (Bagley, 1975).

In view of the observed differences between ideator groups, it was important to examine the efficacy of all measures used in discriminating Nonideators from Ideators and from Planners. The ability of each of these variables was compared using discriminant function analysis. Six predictor variables (scores on Mental Illness, Normality, Right to die, Cry for Help, Problem Solving scales and Gender) were used initially. Nonideators were most often correctly categorised while Ideators were least often correctly classified. This may be due to greater heterogeneity in the Ideator group in comparison with the Nonideator and Planner groups. In terms of sensitivity, the discriminant function correctly classifies approximately half of the Planners and between one-quarter and one-third of Ideators depending on the number of scale scores entered. Perhaps most importantly, almost half of the Planners were correctly classified in the cross validation using only Normality and Problem solving scores, while most of the false positives in this group were Ideators. The analysis was

therefore more inclined to misclassify Ideators rather than Nonideators as Planners, which would be preferable in terms of catching those with some form of suicide risk.

Stepwise prediction demonstrated that the two best predictor variables for discriminating between groups were Normality and Problem solving. This was consistent with earlier analysis of variance, which found that Normality was the most effective of all four SOQ scales in differentiating the ideator groups. When stepwise prediction was used to allocate all respondents to one of three groups (Nonideators, Ideators and Planners) Normality and problem solving variables were almost as effective in classifying respondents as all six variables combined. The other three SOQ scales contributed nothing more to the classification. Attitudes around the Normality of suicidal behaviour and one's own coping ability may be the most significant correlates of ideation. Prospective studies might further examine the potential of these variables in screening individual at –risk.

It has been acknowledged that there are important '*filter mechanisms*' involved in suicidal behaviour (Kelleher, 1996). Only some people engage in ideation and a smaller proportion of these proceed to self-harm. Some form of stressor invariably precipitates ideation, but people encounter problems on a regular basis. It seems therefore that stressors are necessary but not sufficient to elicit suicidal thoughts. The present study indicates that people differ in the extent to which they are not tolerant of suicidal behaviour and feel able to cope with problems. These characteristics differentiate respondents with a history of suicidal ideation from those without.

Despite the influence of attitudes and self-evaluations in the development of suicidal ideation, other characteristics must also be involved when Ideators self-harm. If not, all people accommodating the notion of self-harm would engage in suicidal behaviour. For instance only a minority of people living in high-risk areas ever parasuicide (Ginsburg, 1971). In addition, ideation is common in young populations while suicide attempts are considerably less so (Smith and Crawford, 1986; Andrews and Lewinsohn, 1992). This suggests that other individual characteristics must separate Ideators who proceed to overt self-harm from ideators who do not. Additional factors must intervene when a person becomes suicidal.

Numerous studies report problem-solving difficulties in suicide Ideators (Clum *et al*., 1979; Priiester and Clum, 1992; Schotte and Clum, 1982; Yang Clum, 1994) but problem solving also differs according to suicidal behaviour. Suicide ideators who never self-harm may experience problem-solving difficulties to a different degree than those who do. In a comparative study of hospitalised suicide attempters and suicide Ideators Cremniter *et al*., (1992) observed that Ideators who request hospitalisation are more conscious of their suffering than hospitalised suicide attempters. They also found that hospitalised Ideators improved considerably less and at a considerably slower rate than suicide attempters. Their argument is that suicide attempts may be more effective at solving particular problem than suicidal ideation. This might explain the wide range of problem solving scores obtained by suicide attempters in the present study. Planners had significantly poorer problem solving

scores than Ideators. To the extent that Planners are more likely to self-harm than Ideators, problem solving may be a good indicator of risk.

Parasuicides and suicide ideators may have different kinds of problem solving ability. Linehan *et al.* (1987) found that current suicide Ideators without a history of self-harm had higher active problem solving and lower passive problem solving than current parasuicides and current Ideators with a history of parasuicide. No differences in problem solving were found between current Ideators with a parasuicide history and current parasuicides, indicating that active problem solving may be more important in preventing self-harm.

The nature of problem solving difficulties may also differ between Ideators and parasuicides. More specifically, Ideators are less susceptible to interpersonal problem than parasuicides. Linehan *et al.* (1986) found that interpersonal problems-operationalised as a difficult relationship or the absence of other people-were reported significantly more often by parasuiside patients as their primary presenting problem than Ideators or nonsuisidal respondents. In the present study Attempters did not differ significantly from Planers on problem solving appraisal, but this may be due to the small number of Planners.

Given that Ideators are characterised by coping difficulties, problem-solving therapy may be as effective in alleviating ideation as it is in reducing the risk of repeated self-harm. The treatment of ideation has received little attention however. In one comparative treatment study of suicide Ideators, problem-solving training was found to be no more effective than supportive therapy in reducing ideation in the

short-term (Lerner and Clum, 1990). However the authors failed to note that problem solving treatment group had lower ideation at three months follow-up than the supportive therapy group. This outcome suggests that problem solving training may alleviate serious ideation in the long-term by enhancing coping ability on an ongoing basis.

Research focusing on suicidal ideation – as distinct from parasuicide – has been limited (Linehan *et al.*, 1986). Many studies suffer from vagueness of definition, which has implications for the ways in which variables are operationalised. For example, in some studies the term 'suicidal' has been used to denote history of ideation, while in others it applies to both ideation and overt self-harm. There are also problems with the criteria used to qualify ideation. Thoughts relating to suicide in the absence of suicidal intent are sometimes classified as ideation and at other times not. King (1997) warns that the focus should be placed on meaningful suicidal thoughts but there is as yet no consensus on the definition of meaningful ideation. Failure to distinguish between types of ideation restricts comparison between studies and also the measurement of intervention efficacy (Leonard and Flinn, 1972; Leenaars *et al.*, 1997).

Suicidal ideation can take two broad forms: Firstly ideation may be engaged in when suicide is seen as the *only* option available and one into which a person feels coerced (Salander Renberg, 1998). This form of ideation may carry increased suicide risk. Secondly, ideation can provide an extra option in response to problems and in so doing; widen a person's response alternatives. The important

question in this case is whether ideation can enhance a person's own sense of coping ability and in so doing act as a protective factor. Alvarez (1972), in an attempt to describe different types of suicidal behaviour, depicts one group of people who engage in suicidal thoughts as a way of coping on an habitual basis. As he explains, simply knowing that the notion of suicide is available to them is sufficient to them is sufficient for them to cope: "…the mere idea of suicide is enough; they can continue to function efficiently, even happily, provided they know they have their own, specially chosen means of escape always ready …" Miller, 1992) ". to know that it can be done, that the option really exists and is even becoming, is usually enough to relieve a mild suicidal anxiety". (Miller, 1992)

Although ideation may provide a sense of relief this does not mean that it improves problem solving. Average problem solving scores obtained by Ideators and Planners in the present study indicate that ideation is associated with significantly poorer appraisal of coping skills than in those who have never considered suicide. This configuration of thoughts indicates that ideation is not a random preoccupation but is most likely to occur in those who have poorer coping skills generally.

CHAPTER-VI

SUGGESTIONS, LIMITATIONS AND SUMMARY

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Suggestions

1. To create awareness in the community, about cross-cultural attitudes towards suicidal behaviour, through mass media.
2. To involve NGO's in the process of spreading awareness among the people.
3. To create a liaison post of Clinical Psychologist in the Accident and Emergency (Casualty) Department in hospitals.
4. To create a liaison post of Educational Psychologist, in education prevent the risk of suicide among the young people.
5. To provide training to the teachers, paramedics and doctors, regarding problem solving and coping skills, so that they can do group-work to create awareness among the community.
6. To establish a suicide help-line in different hospitals and in the community.
7. To establish a Suicide Research Foundation that will conduct research throughout the country and help people in need.
8. The literature suggests that changing attitudes to suicidal behaviour have occurred conjointly with an increase in rates of behaviour, particularly among young people. When attitudes are understood to be contributing to this increase, recommendations have been made in suicide prevention programs to redress the problem by changing these attitudes. In order to reduce imitative

acts of suicide to renewed 'pathologising' of suicidal behaviour so that it becomes less attractive option for young people. However this may be counter-productive approach, as to attribute cause in such a negative fashion may also have the effect of increasing the risk for those who become suicidal. This type of attitude might inhibit communication of suicidal distress, and further endanger the suicidal person by isolating them from peer group or other sources of support, Rather than initiating a process of attitude change to force self-harm outside of the range of normal behaviour, it might be more realistic to consider ways of making suicide and self-harm unattractive coping mechanisms for those who consider them. This may have to be achieved indirectly, by promoting and developing more feasible and attractive coping options for young people. Attitude change is a valid target in suicide prevention, but the specific change required needs to be seriously considered in advance of implementing any program.

Limitations

The main limitation was travelling from one country to the other. Travelling and conducting research was quite expensive. Other than that, a big limitation was building rapport with the students, as they were hesitant to reveal personal information. But slowly and gradually, as they were assured that their information would be kept confidential, they eased up and relaxed while communicating.

Summary

Suicidal ideation is a great risk, even if it does not involve self-harm but usually self-harm is not involved. The relationship between suicidal Ideation and problem-solving skills is non-Identical in males and females, due to which there is development in screening for suicidal Ideation. The level of Ideation is independent of gender. A self-harm plan is a useful index of suicidal intent. According to this study, non-ideators had the highest problem-solving skills than ideators, who in turn had stronger problem-solving ability than planners. Males and females did not differ significantly overall but they did exhibit distinctly different patterns in problem-solving across ideation levels. Non-Ideators were significantly less in agreement than Ideators and Planners with the attitude that suicidal behaviour is normal. Non-Ideators were also significantly less in agreement than Ideators and Planners with the attitude that people have the right to take their own lives. There were no significant gender differences on any of the cross-cultural attitude scores.

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ANNEXURES

Annexures

Domino's Suicide Opinion Questionnaire

This is not a test but a survey of your opinions: there are no right or wrong answers, only your honest opinion counts.

For each item indicate (on the answer sheet) whether you:
A. strongly agree
B. agree
C. are undecided
D. disagree
E. strongly disagree

1. Most persons who attempt suicide are lonely and depressed.
2. Almost everyone has at some time or another thought about suicide.
3. The suicide rate is higher for blacks than for whites.
4. The actual suicide rate in the **US** is much greater than is reflected by official statistics.
5. Suicide prevention centres actually infringe on a person's right to take his life Changed
6. Most suicides are triggered by arguments with a spouse.
7. The higher incidence of suicide is due to the lesser influence of religion.
8. Many suicide notes reveal substantial anger towards the world.
9. I would feel ashamed if a member of my family committed suicide.
10. Most suicide attempts are impulsive in nature.
11. Many suicides are the result of the desire of the suicide victim to get even with someone.
12. In the US suicide by shooting oneself is the most common method.
13. People with incurable diseases should be allowed to commit suicide in a dignified manner.
14. Those who threaten to commit suicide rarely do so.
15. Suicide is more prevalent among the very rich and the very poor.
16. Individuals who kill themselves out of patriotism do so not because they are courageous but because they enjoy taking major risks.
17. Suicide is a leading cause of death in the US.
18. Suicide is an acceptable means to end an incurable illness.
19. People who commit suicide are usually mentally ill.
20. Some people commit suicide as an act of self-punishment.
21. The feeling of despair reflected in the act of suicide is contrary to the teachings of most major religions.
22. Suicide rates vary greatly from country to country.
23. I feel sorry for people who commit suicide.

24. John Doe, age 45, has just committed suicide. An investigation will probably reveal that he has considered suicide for quite a few years.
25. Suicide is acceptable for aged and infirm persons.
26. The suicide rate among physicians is substantially greater than for other occupational groups.
27. The Japan's Kamikaze pilots who destroyed themselves by flying their aeroplanes into a ship should not be considered suicide victims.
28. Different cultural child rearing practices are probably unrelated to suicide rates.
29. Suicide is clear evidence that man has a basically destructive and aggressive nature.
30. Over the past ten years the suicide rate in this country has increased greatly.
31. Most people who try to kill themselves don't really want to die.
32. Suicide happens without warning.
33. A business executive arrested for fraud or other illegal practices should face punishment like a man rather than seek suicide as an escape.
34. Most suicide victims are older persons with little to live for.
35. A person who tried to commit suicide is not really responsible for those actions.
36. About 75% of those who successfully commit suicide have attempted suicide at least once before.
37. It's rare for someone who is thinking about suicide to be dissuaded by a "friendly ear".
38. People who commit suicide must have a weak personality structure.
39. The method used in a given suicide probably reflects whether the action was impulsive or carefully and rationally planned.
40. Social variables such as overcrowding and increased noise can lead a person to be more suicide-prone.
41. A large percentage of suicide victims come from broken homes.
42. A rather frequent message in suicide notes is one of unreturned love.
43. People who set themselves on fire in order to call attention to some political or religious issue are mentally unbalanced. Changed method and wording
44 The possibility of committing suicide is greater for older people (those 60 and over) than for younger people (20 to 30)
45. Most people who commit suicide do not believe in an afterlife.
46. In times of war, for a captured soldier to commit suicide is an act of heroism
47. Suicide attempters are typically trying to get even.
48. Once a person is suicidal, he is suicidal forever.
49. There are situations in which the only reasonable solution is suicide.
50. People should be prevented from committing suicide since most are not acting rationally at the time.
51. The suicide rate is higher for minority groups such as Chicano, American Indians and Puerto Ricans.
52. Improvement following a suicidal crisis indicates that the risk is over.
53. People who engage in dangerous sports such as automobile racing probably have an unconscious wish to die.

54. Prisoners in jail who attempt suicide are probably trying to get better living conditions.
55. Suicide among young people (e.g. students) are particularly puzzling since they have everything to live for.
56. Once a person survives a suicide attempt, the possibility of them trying again is minimal.
57. In general suicide is an evil act, not to be condoned.
58. People who attempt suicide and live should be required to undertake therapy to understand their inner motivation.
59. Suicide is a normal behaviour.
60. Many victims of fatal automobile accidents are actually unconsciously motivated to commit suicide.
61. If a culture were to allow the unconscious expression of feelings like anger and shame, the suicide rate would decrease substantially.
62. From an evolutionary point of view suicide is a rational means by which the less mentally fit are eliminated.
63. Suicide attempters who use public places (such as a bridge or tall building) are more interested in getting attention.
64. A person who has attempted suicide is at greater risk for suicide.
65. External factors, like lack of money, are a major reason for suicide.
66. Suicide rates are a great indicator of the stability of a nation; that is, the more suicides the more problems a nation is facing.
67. Sometimes suicide is the only escape from life's problems.
68. Suicide is a very serious moral transgression.
69. Some individuals have committed suicide to preserve their honour; these were victims of cultural values rather than disturbed personal attitudes.
70. If someone wants to commit suicide, it is their business and we should not interfere.
71. A suicide attempt is essentially a "cry for help."
72. Obese individuals are more likely to commit suicide than persons of normal weight.
73. Heroic suicides (e.g. the soldier in war throwing himself on a live grenade) should be viewed differently from other suicides (e.g. jumping off a bridge).
74. The most frequent message in suicide notes is one of loneliness.
75. Usually, relatives of a suicide victim had no idea of what was about to happen.
76. Long term self-destructive behaviours, such as alcoholism, may represent unconscious suicide attempts.
77. Suicide attempts are typically preceded by feelings that life is no longer worth living.
78. Suicide goes against the laws of God and/or nature.
79. We should have "suicide clinics" where people who want to die could do so in a painless and private manner.
80. Those people who attempt suicide are usually trying to get sympathy from others.
81. People who commit suicide lack solid religious convictions.

82. People with no roots or family ties are more likely to attempt suicide.
83, People who bungle suicide attempts really did not intend to die in the first place.
84. Passive suicide, such as an overdose of sleeping pills, is more acceptable than violent suicide such as by gunshot.
85. Potentially, every one of us can (Changed to "could") be a suicide victim.
86. Suicide occurs only in civilised societies
87. People who die by suicide should not be buried in the same cemetery as those who die naturally.
88. Most people who commit suicide do not believe in God.
89. Children from larger families (i.e. three or more children) are less likely to commit suicide as adults than single or only children.
90. Suicide attempters are as individuals more rigid and less flexible than non-attempters.
91. The large majority of suicide attempts result in death.
92, Some people are better off dead.
93. People who attempt suicide are, as a group, less religious.
94. As a group, people who commit suicide experienced disturbed family relationships when they were young.
95. People do not have the right to take their own lives.
96. Most people who attempt suicide fail in their attempts.
97. Those who commit suicide are cowards who cannot face life's challenges.
98. Individuals who are depressed are more likely to commit suicide.(changed to attempt)
99. Suicide is much more frequent in our world today than it was in early cultures such as Egypt, Greece, and the Roman Empire.
100. People who are high suicide risks can be easily identified.

Demographic questions

Your responses are confidential and are being studied for research purposes only. It would be helpful to us if you would answer the following questions also (on the answer sheet).

101. Are you:
a. male b. female

102. Have you ever seriously considered suicide
a. yes b. no

103. Have you ever attempted suicide? If yes by what method(s) and when was/were the attempt(s)?
a. yes b. no

104 Have you personally known someone who has attempted suicide?

If yes to the above question, was the person:
a. a member of your immediate family e.g. parent, sibling ; (Please specify)
b. a relative (e.g. cousin) ;
c. a close friend;
d. an acquaintance.

105. Have you personally known someone who has committed suicide?
a. yes b. no

106. If yes to the above question, was the person:
a. a member of your immediate family (e.g. parent, sibling) ;
b. a relative (e.g. cousin) ;
c. a close friend;
d. an acquaintance.

107. What is the probability that at some point in your life you might attempt suicide?
a. zero
b. less than 10 %
c. 50-50
d. somewhat probable
e. highly probable

108. In answering a questionnaire like this, there are many reasons why some people may not be able or wish to be fully honest. In looking over your responses, should we:
a. accept them as fully honest.
b. accept them but with some reservation
c. probably disregard them
d. disregard them as not valid

Clinical Sub Scales

4 of 8 Clinical Subscales selected from Domino's Questionnaire were used in our study.

MENTAL ILLNESS

19. People who commit suicide are usually mentally ill.
35. A person who has tried to commit suicide is not really responsible for those actions.
38. People who commit suicide must have a weak personality structure.
41. A large percentage of suicide victims come from broken homes.
65. External factors, like lack of money, are **not** a major reason for suicide.
74. The most frequent message in suicide notes is one of loneliness.
82. People with no roots or family ties are more likely to attempt suicide.
90. Suicide attempters are as individuals more rigid and less flexible than non-attempters.
94. As a group, people who commit suicide have experienced disturbed family relationships when they were young.
98. Individuals who are depressed are more likely to attempt suicide.

Reverse

1. Most persons who attempt suicide are **not** lonely and depressed.
43. People who go on hunger strike in order to call attention to some political or religious issue are **not** mentally disturbed.
58. People who attempt suicide and live should **not** be required to undertake therapy to understand their inner motivation.

NORMALITY

2. Almost everyone has at some time or another thought about suicide.
62. From an evolutionary point of view suicide is a rational means by which the less mentally fit are eliminated.
67. Sometimes suicide is the only escape from life's problems.

Reverse

49. There **are no** situations where the only reasonable solution is suicide.
55. Suicides among young people (e.g. students) are particularly puzzling since they have everything to live for.
59. Suicide is **not** a normal behaviour.
85. The majority of people **could not** potentially be a suicide victim.

RIGHT TO DIE

13. People with incurable diseases should be allowed to commit suicide in a dignified manner.
70. If someone wants to commit suicide, it is their business and we should not interfere.
79. We should have "suicide clinics" where people who want to die could do so in a painless and private manner.

Reverse

5. Suicide prevention centres actually infringe on a person's right to take his own life.**(culturally inappropriate)**
18. Suicide is **not** an acceptable means to end an incurable illness.
25. Suicide is **not** acceptable for aged and infirm persons.
50. People should be prevented from committing suicide since most are not acting rationally at the time
95. People do not have the right to take their own lives.

CRY FOR HELP

14. Those who threaten to commit suicide rarely do so.
31. Most people who try to kill themselves don't really want to die.
54. Prisoners in jail who attempt suicide are probably trying to get better living conditions.
56. Once a person survives a suicide attempt, the possibility of them trying again is minimal.
63. Suicide attempters who use public places (such as a bridge or tall building) are more interested in getting attention.
83, People who bungle suicide attempts really did not intend to die in the first place.
91. The large majority of suicide attempts **do not** result in death.

Reverse

17. Suicide is a leading cause of death in Ireland.
37. It's rare for someone who is thinking about suicide to be dissuaded by a "friendly ear".
71. A suicide attempt is **not** essentially a "cry for help."
80. Those people who attempt suicide are **not** usually trying to get sympathy from others.
96. Most people who attempt suicide do **not** fail in their attempts.

Reference

Limbacher, M. & Domino, G. (1986). Attitudes toward suicide among attempters, contemplators and nonattempters. Omega, 16(4), 325-334.

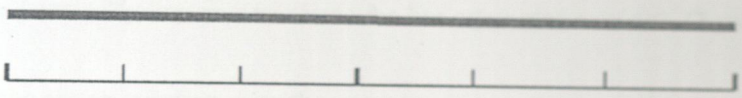
Suicide History Questionaire

Your responses are confidential and are being studied for research purposes only.
It would be helpful to us if you would answer the following questions also:

1. Have you ever considered suicide? ☐yes ☐no

If the answer is NO then go directly to question 9 below (omit questions 2 - 8):

2. IF YES, how serious were these thoughts? (Indicate by marking the bar below)

TRIVIAL  VERY SERIOUS

3. Did your thoughts include a fairly detailed plan? ☐ yes ☐ no

4. How frequent were these thoughts at the time ?
☐ occasionally (some days)
☐ almost daily (most days)
☐ several times a day

5. How persistent were the thoughts?
☐ fleeting
☐ lasting for minutes
☐ lasting for an hour(s)
☐ lasting for the whole day

6. Have you had thoughts of suicide during the past month? ☐ yes ☐ no

If so how frequent?.....

7. Have you had thoughts of suicide during the past year? ☐yes ☐no

If so how frequent?.....

8. What was the nature of the situation that prompted these thoughts?
☐ problems with parents
☐ problems with other family members

☐ other relationship difficulties (Please specify with whom).....

☐ academic pressure
☐ social isolation
☐ unplanned pregnancy
☐ other (Please specify).....

9. Have you ever attempted suicide? ☐yes ☐no

10. If yes by what method(s) and when was/were the attempt(s)?

Method(s).....Date(s).....

11. Have you personally known someone who has attempted suicide? ☐ yes ☐ no

12. If yes to the above question, was the person:
☐ a member of your immediate family e.g. parent, sibling ; (Please specify)
☐ a relative (e.g. cousin) ;
☐ a close friend;
☐ an acquaintance.

13. Have you personally known someone who has committed suicide? ☐yes ☐ no

14. If yes to the above question, was the person:
☐ a member of your immediate family (e.g. parent, sibling) ;
☐ a relative (e.g. cousin) ;
☐ a close friend;
☐ an acquaintance.

15. What is the probability that at some point in your life you might attempt suicide?
☐ none (zero)
☐ highly unlikely (1 - 10 % chance)
☐ less likely than never attempting
☐ *as* likely as never attempting (50-50 chance)
☐ more likely than never attempting
☐ highly likely (90-100% chance)
☐ definite (100% certain)

16. In answering a questionnaire like this, there are many reasons why some people may not be able or wish to be fully honest. In looking over your responses, should we:

- ☐ accept them as fully honest.
- ☐ accept them but with some reservation
- ☐ probably disregard them
- ☐ disregard them as not valid

SRPS SCALE

Developed by B.C. McLeavey and R.J. Daly.

Instructions for completing the SRPS Scale.

The following questions ask how you usually feel when you have problems with other people, and how you usually deal with these problems. You should answer each one in the first section by circling the appropriate box

EXAMPLE

QUESTION	Almost never	Seldom	Sometimes	Often	Almost always
I admit when I have made a mistake.		✓			

This response indicates that the individual answering the question seldom admits to making a mistake.
You should answer the following questions by ticking the appropriate box.

Question.	Almost Never	Seldom	Sometimes	Often	Almost Always
1. When a problem with another person gets very bad I think of taking an overdose.					
2. I get into heated arguments with people.					
3. When I have a problem with another person I feel I will be able to solve it effectively.					
4. If I try to make things better between myself and someone else and the situation does not improve, then I stop trying.					
5. I can disagree with someone without getting upset.					
6. When I feel upset, I act without thinking clearly.					
7. When I have a problem with another person I try to avoid doing anything about it if possible.					
8. Other people seem to understand how I feel.					
9. When I have a problem I can't seem to find a way out of it.					
10. When I get upset I tell the other person how I am feeling.					
11. I think over what the consequences will be before I act on a problem.					

12. I check how the other person feels about the problem by asking him/her.					
13. When I have a problem with another person I try to get it over with immediately.					
14. If the other person gets upset or angry then I get upset or angry myself.					
15. I find out exactly what the other person wants by asking him or her.					
16. When I act on a problem I end up regretting what I have done.					
17. My problems with other people make my life miserable.					
18. I consider more than one way of solving a problem before trying anything.					
19. My feelings are very hurt by other people.					

Answer the following questions by circling the appropriate response.

EXAMPLE

QUESTION	1	2	3	4	5
I usually explain myself	Very badly	Fairly Badly	Barelyadequately	Fairly well	Very well

In this case the respondent has indicated that they are only barely adequately able to explain themselves.

QUESTION	1	2	3	4	5
20. Compared with other people's problems mine seem to be	Much less serious	Not quite as serious	About the same	A bit worse	Much worse
21. When I think about my biggest problem at the moment I feel	Certain I can solve it	Fairly sure I can solve it	Not sure if I can solve it	Fairly sure I can't solve it	Not sure I can solve it
22. I usually explain myself	Very badly	Fairly badly	Barely adequately	Fairly well	Very well
23. Compared with other people's problems, mine are	Completely different	Very different	A fair bit different	Slightly different	No different
24. There is only one good solution to every problem.	Strongly agree	Agree somewhat	Not sure	Disagree somewhat	Strongly disagree
25. Compared with one year ago my problems seem to be	Much worse	A bit worse	The same	Less difficult	Much less difficult

Instructions for the SRPS scale

The following questions ask how you usually feel when you have problems with other people, and how you usually deal with these prolems. You should answer each one by circling a number from 1 to 5.

Example

I admit when I have made a mistake.

1	(2)	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

Here the 2 has been circled and this means that the person answering, seldom admits to making a mistake.

1. I think over what the consequence will be before I act on a problem.

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

2. I check how the other person feels about the problem by asking him/her

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

3. When I have a problem with another person I try to get it over with imeediately

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

4. If the other person gets upset or angry, I get upset or angry myself

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

5. **I find out exactly what the other person wants by asking him/her**

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

6. When I act on a problem I end up regretting what I have done

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

7. When I think about my biggest problem at the moment I feel

1	2	3	4	5
Certain I can solve it	Fairly sure I can solve it	Not sure if I can solve it	Fairly sure I cannot solve it	Certian I cannot solve it

8. My problems with other people makes my life miserable

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

9. **I consider more than one way of solving a problem before trying anything**

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

10. My feelings are very hurt by other people

1	2	3	4	5
Almost never	Seldom	Sometimes	Often	Almost Always

11. **I usually explain myself**

1	2	3	4	5
Very badly	Fairly badly	Barely adequate	Fairly well	Very well

12. **Compared to other people's problems, mine are**

1	2	3	4	5
completely different	Very different	A fair bit different	Slightly different	Not different

13. **There is just one good solution to every problem**

1	2	3	4	5

DEMOGRAPHIC INFORMATION SECTION

Name:_____

Address: _____

_____

_____

Age:_____ Gender:_____

Marital Status:_____

Specify: _____

_____

Nationality:_____

Specify:_____

_____

Socio Economic Status: _____

Source of Income:_____

History of Physical illness: _____

_____

History of mental illness:_____

College of Arts and Sciences
Faculty of Social and Behavioral Sciences
Department of Psychology

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Please forgive this form letter, but the number of inquiries regarding the Suicide Opinion Questionnaire (SOQ) have far exceeded my answering capabilities.

✓ Enclosed please find a copy of the SOQ which you are welcomed to reproduce for your study or project.

✓ The SOQ can be scored for the original 15 factors (scoring guidelines enclosed) or for 8 clinical scales (scoring guidelines enclosed). The clinical scales seem to be more logically consistent and meaningful, and statistically work as well as the 15 factor scales. If you use the clinical scales and need a description of how these were developed, see the 1988 Domino, MacGregor, and Hannah Reference.

✓ Handscoring the SOQ is tedious and time-consuming. We use answer sheets that can be read by an optical scanner and the results placed directly into the computer. You might wish to investigate what is available locally.

✓ Item # 107 on the SOQ can be used to identify invalid protocols. Our experience has been that these are rare (less than 1 in 100).

___ Enclosed is a bibliography of SOQ studies.

___ Enclosed are relevant reprints.

___ I would appreciate receiving a copy (preprint, reprint, etc.) of your study when completed.

✓ If you need additional information, I can be reached at

Sincerely,

George Domino

George Domino, Ph.D.
Professor EMERITUS

Dept

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① Students - Suicide - Ireland
② Suicidal distress - "

① Students - Suicide - Ireland
② Suicidal distress - "