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Understanding Suicidality: Suicide risk, sex differences and views of suicide attempters

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Understanding Suicidality:

Suicide risk, sex differences and views of suicide
attempters

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Lund University 2006



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Abstract

Better understanding of suicidality may improve treatment and care of suicide attempters. This thesis aims at understanding suicidality by investigating suicide risk, sex differences and views of suicide attempters.

Suicide risk factors (prospectively determined) differed between the sexes: Older age and high suicidal intent were female risk factors, whereas previous attempts and using a violent method were male risk factors. Major depression was a risk factor for both sexes, underlining the importance of adequate treatment of depression.

Suicide attempters' views on causes and motives for attempted suicide were investigated using as well quantitative as qualitative methods. Men attributed more importance to economic problems and unemployment, whereas women more often affirmed loneliness, psychiatric symptoms and interpersonal problems. Most patients affirmed several contributing problems, and the background factors were recurrently described to interact in vicious circles. Escaping from emotional pain was the most common and fundamental motive for attempted suicide. Punishing/manipulating motives were seldom reported. More than one pathway to attempted suicide was described.

Two types of acute suicidal states of mind were described: one distinguished by confusion, panic, and desperation, and another characterised by "tunnel vision" and "turned off" emotions. In this situation one neither wanted nor could seek help.

Suicide attempters suggested that improvements of the professional help offered, as well as improvements of their own capabilities to deal with problems and seek help before it is perceived as too late might prevent suicide attempts.

Trying to understand suicidality from the perspective of suicidal individuals seems clinically valuable.

Front cover:

Starry night, painted by Vincent van Gogh in 1889, the year before his suicide. He painted this picture while he was at the Asylum at Saint-Remy, not outdoors as he usually preferred, but from memory.

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*To all of you who shared your stories with me,
or in other ways participated in these studies*

*A wizened countenance, forgetting pain;
A light, a twisted thought, a shattered brain.*

“Suicide.”

Allen Tate (1899–1979), U.S. poet, critic.

Table of contents

ORIGINAL PAPERS	7
PREFACE	8
INTRODUCTION	9
EPIDEMIOLOGY OF SUICIDE AND SUICIDE ATTEMPTS	9
<i>Suicide</i>	<i>9</i>
<i>Suicide attempts</i>	<i>10</i>
DEFINITION OF SUICIDALITY AND RELATED CONCEPTS	10
MODELS OF SUICIDALITY	11
TREATMENT OF SUICIDALITY	15
ASPECTS OF SUICIDALITY ADDRESSED IN THE PRESENT THESIS	15
<i>Characteristics of suicide attempters</i>	<i>16</i>
<i>Risk factors for suicide</i>	<i>16</i>
<i>Sex differences and gender issues in relation to suicidality</i>	<i>19</i>
<i>Patients' views on the background of suicide attempts</i>	<i>19</i>
AIMS	21
METHODS	22
CLINICAL SETTING AND SAMPLING	22
<i>Paper I</i>	<i>23</i>
<i>Papers II and III</i>	<i>24</i>
<i>Paper IV</i>	<i>25</i>
PARTICIPANT CHARACTERISTICS	26
INSTRUMENTS FOR DATA COLLECTION	27
<i>Psychiatric diagnosis</i>	<i>27</i>
<i>Assessment of problems (paper II)</i>	<i>27</i>
<i>Assessment of motives (paper III)</i>	<i>27</i>
<i>Suicidal intent (paper I-III)</i>	<i>28</i>
<i>Social network (paper II)</i>	<i>28</i>
<i>General psychopathology (paper III) and depressive symptoms (paper II-III)</i>	<i>28</i>
<i>Hopelessness (paper III)</i>	<i>28</i>
STATISTICS	28
QUALITATIVE RESEARCH METHODS	30
<i>General comments on qualitative vs. quantitative research methods</i>	<i>30</i>
<i>Semi-structured interviews</i>	<i>30</i>
<i>Method of analysis</i>	<i>30</i>
<i>Presentation</i>	<i>31</i>
<i>Preconception and perspectives</i>	<i>31</i>
ETHICAL APPROVAL	32
RESULTS & COMMENTS	33
PAPER I: SEX DIFFERENCES IN RISK FACTORS FOR SUICIDE AFTER ATTEMPTED SUICIDE. A FOLLOW-UP STUDY OF 1052 SUICIDE ATTEMPTERS.	33
PAPER II: PROBLEMS OF IMPORTANCE FOR SUICIDE ATTEMPTS – THE PATIENTS' VIEWS	34
PAPER III: MOTIVES FOR SUICIDE ATTEMPTS – THE VIEWS OF THE PATIENTS	36
PAPER IV: PROCESSES PRECEDING ATTEMPTED SUICIDE AND POSSIBLE PREVENTIVE FACTORS: EXPERIENCES AND VIEWS OF SUICIDE ATTEMPTERS.	38
DISCUSSION	42
METHODOLOGICAL CONSIDERATIONS	42
<i>Patient samples</i>	<i>42</i>
<i>Patient reports and social desirability</i>	<i>43</i>
MAIN FINDINGS	44
SEX DIFFERENCES AND GENDER ASPECTS	45
RISK OF SUICIDAL ACTS	46
THE ACUTE SUICIDAL STATES OF MIND	47
FURTHER REFLECTIONS ON THE PERSPECTIVES ON SUICIDALITY IN CLINICAL PSYCHIATRY	48

CONCLUSIONS	51
IMPLICATIONS FOR FURTHER RESEARCH	51
IN CLOSING	52
ACKNOWLEDGEMENTS.....	53
POPULÄRVETENSKAPLIG SAMMANFATTNING	55
REFERENCES.....	58

Original papers

The thesis is based on the following papers, which will be referred to in the text by their Roman numerals:

- I** Skogman K, Alsén M, and Öjehagen A.
Sex differences in risk factors for suicide after attempted suicide. A follow-up of 1052 suicide attempters.
Social Psychiatry & Psychiatric Epidemiology 2004; 39: 113-120.
- II** Skogman K, and Öjehagen A.
Problems of Importance for Suicide Attempts. The patients' views.
Archives of Suicide Research 2003; 7: 207-220.
- III** Skogman K, and Öjehagen A.
Motives for Suicide Attempts. The views of the patients.
Archives of Suicide Research 2003; 7: 193-206.
- IV** Skogman K, Ågren Bolmsjö I, and Öjehagen A.
Processes preceding attempted suicide and possible preventive factors: Experiences and views of suicide attempters.
Manuscript 2005. Submitted to Suicide and Life-Threatening Behavior.

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Preface

When I tell people that I work with research on suicidal behaviour, I get many different reactions:

Reaction 1 – The Interested:

- Wow. How exciting! That must be really interesting! What have you found?

Reaction 2 – The Surprised and Sceptical:

- Oh. That sounds... heavy. Why... Er... How come you study... that? I mean that must be kind of depressing? And isn't it a little *weird* to work with that?

Reaction 3 – The Besserwisser:

- Ah, yeah. You know, that's all about getting attention – suicide attempts. Or, like, a cry for help. Well, unless you really want to die, but then you mostly succeed, right? Yes... It's too bad that Sweden has the highest suicide rate in the world. Or is it Japan?

Reaction 4 – The Confiding:

- Really? That's very important. You know, I once tried to take my life / I had a friend who killed himself.

For different reasons I find all these reactions motivating:

The first one reminds me of how privileged I am: I get to work with exploring and trying to understand human beings and human behaviour. Is there anything more exciting than that? Not in my opinion.

The second one reminds me of all the taboos that are connected with suicidality and psychiatric problems: Working with suicidology sometimes strikes people as a bit weird, and perhaps even scary. The response also says something about how serious and worrying a problem suicidal behaviour is. So if I can contribute in any way - if ever so slightly - to deal with this problem I want to do it.

The third reaction can be quite annoying, really, but also has a comic touch to it. I mean, how often do researchers on for example molecular mechanisms of diabetes get the answer "Oh, yeah – let me tell you what *that's* all about"? My guess is: Not often. However, besides to amusing or annoying me, this response motivates me to find out more and to spread what I've found. It namely reminds me of all the prejudice and misconceptions that are part of the "common knowledge" on suicidal behaviour in society today.

The fourth reaction has stunted me at several occasions. For instance when I found out that a person who I always perceived as a contented, optimistic, strong and joyful person only a few years earlier had been close to ending his life. Or when another friend told me he at that moment had serious thoughts about committing suicide. I have seen the figures. I know that suicidal thoughts and acts are very common – yet it keeps surprising me when they show up so close to home. That suicidality is a phenomenon that touches most of us personally, in one way or another, makes this work feel important.

And whether suicidality is perceived as intriguing, scary, disturbing, worrying, pitiful or just heartbreaking, nobody is indifferent to it. I guess that's why I never ever get a: "Uhu? Nice."

Introduction

Suicide and attempted suicide are tragic and painful events both for the individuals who engage in the behaviour as well as for their significant others. The costs for society have recently been approximated to 475 000 Swedish kronor (\approx 50 000 Euro) for each suicide attempt and 1.8 million Swedish kronor (\approx 187 000 Euro) for every completed suicide (Swedish Rescue Services Agency, 2004). (These figures do not account for the additional costs for loss of production caused by sick leave of significant others). Considering that about 1 500 suicides and some 15 000 suicide attempts occur every year in Sweden, suicidal behaviour is a big and serious problem in society.

Repetition of attempted suicide is not uncommon, and the risk for completed suicide is elevated among suicide attempters. In accordance with the general postulate that “the best predictor of future behaviour is past behaviour” it has been found that a suicide attempt is one of the most powerful risk factors for completed suicide (Barraclough, 1987; van Egmond & Diekstra, 1989; Leon et al 1990; Retterstøl & Mehlum, 2001).

In spite of the rapidly growing body of research literature on the topic of suicidality there are still gaps in the understanding of why people make suicide attempts, and how suicide attempters best can be helped to prevent repetition of suicidal acts. Hopefully this thesis will contribute to fill some of these gaps.

Epidemiology of suicide and suicide attempts

Suicide

It was estimated that approximately 1 million people died through suicide worldwide in the year 2000 (WHO, 1999). In Sweden, the corresponding figure in 2002 was 1485 ($=$ 20.3 / 100 000). From a global perspective the Swedish suicide rate is high, but compared with many European countries it is rather low (WHO, 2005). The highest suicide rates in Europe are found in the east, especially in the former Soviet nations (e.g. Lithuania 42.1/100 000). Suicide rates are generally low in Muslim and Catholic countries. International comparisons however need to take into account the incomplete registration of suicides in many countries and the differences in procedures of determining causes of death.

The overall suicide rate in Sweden, as in many other countries in Western Europe, has decreased since the end of the 1970'ies, when the number of suicides exceeded 2300 / year. However, if the 1485 suicides of 2002 instead are compared to the number of suicides in the 1960'ies, when 1500 – 1600 people died through suicide every year, it seems that not much has happened (Beskow et al, 2005).

Further, in contrast to the over-all decrease of suicides in more recent years, the suicide rates among young men have not decreased. (Between the years 1992 and 2002 the suicide rate among men aged 15 - 24 years even increased; from 14.7 / 100 000 to 20.5 / 100 000. Again, the trend becomes less evident through a longer time perspective: In 1980 the suicide rate among young men was 22.6.)

Suicide rates are generally higher among men than among women; in Sweden in 2002 1 077 suicides were carried out by men and 408 by women. The same pattern is observed all over the world, except for in China where suicide rates of women even are slightly higher than among men (WHO, 2005).

Suicide rates are also higher among older people compared to younger people, peaking in the age group of 45 - 64 year-olds in Sweden (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005).

Suicide attempts

Since not all suicide attempts come to the attention of health care, the true number of suicide attempts is unknown. Suicide attempts are however estimated to be 10 - 20 times more common than suicides (WHO, 1999). Thus, the number of suicide attempts in Sweden in 2002 probably was between 14 900 and 29 900. Unlike suicide rates, the rates of suicide attempts coming to medical attention have not decreased over the last decades.

Whereas men are overrepresented among completed suicides, women are overrepresented among suicide attempters (constituting about 60 % of these) (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005). This is true for most European countries, with the exception for Finland where suicide attempt rates are higher among men than among women (Schmidtke et al, 1996).

The highest suicide attempt rates are found among younger people (15 - 24 years) for both sexes, and thereafter successively decrease with increasing age (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005).

The epidemiology of suicidal acts, with its different patterns and trends, gives rise to many questions, such as why suicidal acts seem to be more common in some countries than in others, why men are overrepresented among suicides whereas women make more suicide attempts. The most basic of “why-questions” in relation to suicidal acts is perhaps “Why do people try to kill themselves?” Throughout history the explanations of and perspectives on suicidality have changed, and interesting theories have been developed. But before giving an overview of the existing explanatory models of suicidality it seems important to define what is actually meant by “suicidality”, and other related concepts.

Definition of suicidality and related concepts

The concept “suicidality” refers to thoughts and plans of suicide, suicide attempts and completed suicide, and thus comprises a wide range of phenomena. A concept synonymous to “suicidality” is “suicidal behaviour” (which thus not only refers to acts but also to thoughts). “Suicidal ideation” refers to suicidality without action, i.e. all sorts of suicidal thoughts and plans. “Suicidal acts” will in the present thesis refer to attempted and completed suicide. A “suicide attempt” not only refers to an unsuccessful suicide, but also comprises deliberate acts of lower lethality and intention. Several definitions have been proposed over the years to define a suicide attempt. Definitions have been broadened over the years to include acts of lesser lethality and intent but at the same time to distinguish a suicide attempt from other forms of more habitual self-destructive behaviours such as drinking or deliberate, repeated self-mutilation (e.g. superficial cutting, cigarette burning) with no intent or risk of dying involved.

The definition employed in this thesis was formulated in 1972, and defines a suicide attempt as follows: “a situation in which a person has performed an actually or seemingly life-threatening behaviour with the intent of jeopardizing his life, or to give the appearance of such intent, but which has not resulted in death” (Beck et al, 1972).

Another concept which has been increasingly used over the last years is “parasuicide”, which is defined as: “an act with non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of prescribed or generally recognized therapeutic dosage, and which is aimed at realizing changes which the individual desired via the actual or expected physical consequences” (Platt et al, 1992). This definition would also have fit the samples in this thesis, but as the former definition and term “suicide attempt” has been used throughout the local research projects, this terminology has been employed.

The term “violent suicide attempt” refers to attempts where a method other than drug overdose or single wrist-cut, or a combination of different methods, has been used (Träskman et al, 1981).

The international classification of diseases (ICD), which also classifies causes of death, distinguishes between ascertained suicide and “uncertain suicide”. The term “uncertain suicide” is used when there is uncertainty whether the act was intentional (suicide) or unintentional (accident). The majority of uncertain suicides concern cases of self-poisoning. The statistics describing the *overall* suicide rates generally include both uncertain and ascertained suicides, as a substantial part of them are believed to be suicides: Through so-called psychological autopsies 70 - 75 % of uncertain suicides have been rated as suicides. Further, there is believed to be a substantial number of unrecorded cases of suicide among elderly whose suicides sometimes are mistaken for natural deaths (due to somatic illness) and among victims of road accidents. Balancing for these cases is another reason for including also uncertain suicides in the *overall* suicide rates (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005). In individual studies aimed at determining risk factors for suicide it is however more questionable whether uncertain suicides should be included or not.

“The suicidal process” refers to the development of suicidality over time, starting with suicide ideation. Often the process is described to consist of suicide ideation, more specific suicide plans, and suicidal acts: attempted and completed suicide. This description of the suicidal process gives a deterministic impression which is quite misleading, as the process only in a few percent of cases will proceed all the way to completed suicide: Suicide ideation has been reported to be common, and a recent study approximated an annual incidence of 2.3 % in the general population. However, fewer than 1 in 200 people who experience suicidal thoughts go on to complete suicide (Gunnell et al, 2004). Another potentially misleading feature of the concept of the suicidal process is that it hints a linear development of successively increasing suicidality before a suicidal act, which there is no evidence for. It has been suggested that the process may decrease, reappear and fluctuate repeatedly over time (Beskow, 2000). Psychological autopsies of completed suicides have suggested that the length of the suicidal process usually is extended over months, but that it may vary from minutes and hours to years and decades (Runeson et al, 1996). In psychological autopsies, information is gathered through interviews with family members, friends, and health care personnel as well as from patient charts. To understand the processes preceding *attempted* suicide, there is another valuable source of information – namely suicide attempters themselves. Such studies have however been scarce.

Models of suicidality

The views on suicidality have differed throughout the history of mankind: The attitude has changed on the range between condemnation and acceptance in different times and cultures. It has been noted, as an overall trend, that perspectives on suicidality have changed from an outside and rejecting perspective towards an increasing understanding of the suicidal person (Beskow et al, 2005). An overview of major influential models of suicidality in the western world will follow here, with special focus on psychiatric and psychological models:

During Antiquity, the Greeks considered suicide as an acceptable way to avoid humiliation, arrest and death from other causes, but under other circumstances condemned suicide. The

Romans similarly permitted suicide under certain circumstances – but only for the upper classes (Brådvik, 2000). With Christianity, the *theological model* came to dominate the view on suicidality. This model regarded suicide as a defiance of God - a deadly sin - and served society by keeping the suicide rate down through bans and prohibition. Beskow and co-workers (2005) suggest that this model of suicidality, although obsolete, still influences people through a remaining sense of taboo concerning suicidality.

The *existential-philosophical* perspective includes a moral perspective, through which questions whether suicide is right or wrong, courageous or cowardly, have been discussed. It also addresses questions such as whether rational suicide exists, and discusses this in relation to values such as autonomy.

More than a century ago the French sociologist Émile Durkheim proposed a *sociological* explanation of suicide. According to this theory suicide reflects the state of society rather than the state of the individual. Durkheim suggested that suicide could be triggered by society on the one hand in situations when individuals loosen the bonds that previously tied them to society or when the normative regulations fail to guide human beings, and on the other hand, in situations when the regulation of society is too excessive and the regulation of the individuals is too strong (Jones, 1986).

In between the sociological and the psychological perspectives, the *psycho-social* perspective has put focus onto the importance of external stressors as risk factors for suicidal behaviour. Examples of external stressors are living alone, unemployment and having a weak social supportive network. Negative life events such as sexual and physical abuse, bullying and separation through divorce or death have also been emphasised in research from this perspective.

From the *psychiatric* perspective suicidality has been viewed as a symptom of psychopathology. This model was suggested already in the days of the Roman Empire by Galenus who argued that self-destructive behaviour could be a component of mental illness such as melancholia. The view of suicide as a sign of mental illness contrasts with the theological model of suicide as a sin. As a reflection of this it can be noted that in the 13th century Europe where it was forbidden to bury self-killers in cemeteries exceptions were made for “lunatics” (Brådvik, 2000). It was however not until the second half of the 20th century that the psychiatric model of suicidality came to be the dominating one.

It has been found that more than 90 % of suicide attempters as well as suicide victims suffer from a psychiatric disorder at the time of the suicidal act (e.g. Haw et al, 2001; Isometsä et al, 1995), and major depression has been pointed out as the most influential psychiatric disorder in relation to suicidality (Isometsä et al, 1995; Wasserman, 2001). Beskow and colleagues (2005) state that the psychiatric model has contributed to suicide prevention by providing a basis for diagnostics and treatment of depressive syndromes, but also criticise this model for taking on an outside perspective with elements of determinism and some remains of tabooing.

The links between psychiatric disorders and suicidality have in turn been explained from different perspectives. From the psychological perspective, dimensions such as hopelessness have been emphasised (*see below*), and from the biological perspective it has for instance been suggested that a dysfunction of the serotonergic system is the cause of characteristics such as anger and impulsivity, which in turn mediate the relationship between psychiatric disorders and suicidality (Mann et al, 1999).

From the *biological* perspective suicidality is viewed as the end-result of biological processes, and several biological correlates of suicidal behaviour have been found (*see pp 16 -18 for examples*).

Psychological theory and research has provided several models for understanding suicidality. Freud (1917) theorised that suicidality arises if anger towards a lost object cannot be expressed, as the anger then is transformed into self-censure and a wish to harm one-self. Another model, which is a common view of suicidality in the general population, is suicidality as “a cry for help”, which is based on the recognition of the communicative aspects that may be present in suicidal acts.

Shifting emphasis away from the communicative aspect Shneidman (1993; 1998) explained suicide as a “psycheache”: that the wish to stop psychological pain through reaching unconsciousness is the immediate motivation of suicidal acts.

From a more cognitive approach, Williams (1997) proposed the “cry of pain” model which sees suicidal acts as attempts to escape from perceived entrapment. With this model as a starting point Williams and Pollock (2001) presented the psychological dimensions of the suicidal process in a hypothetical model in which “arrested flight” is a central mechanism. It is suggested that a combination of three factors is needed to elicit a suicidal behaviour: 1) stresses (especially defeat/rejection), 2) inability to see a way of escaping, and 3) perceiving “rescue” (primarily by means of social support) as unlikely. It is suggested that when all of these factors are present a biologically mediated “helplessness script” is activated, and serves to support suicidal impulses. It is proposed that the psychological mechanisms that contribute to this “arrested flight” reaction involve attention, memory and judgement: Suicidal individuals seem to be hypersensitive to stimuli signalling defeat and rejection (attention bias). Further, suicidal individuals have been found to have difficulties in retrieving specific memories, which has been suggested to impair their problem-solving capacity (one needs to have access to the “database” made up of past experiences for hints on how to deal with a new situation). These problem-solving difficulties are hypothesised to contribute to a feeling of being trapped in face of difficulties. It is proposed that hopelessness - the perception that rescue is impossible - is caused by difficulties to think of positive things that might happen in the future (rather than anticipating an excess of negative events). It is further assumed that personality variables (genetically determined temperament and environmentally formed character) play a role in how easily a person will respond with an “arrested flight” reaction. Finally, it is proposed that whether an individual finally acts on a suicidal impulse or not is influenced by a number of circumstances, such as availability of methods and display of suicidality in the vicinity of the individual or in media.

Some models have focused on a shorter period of time, attempting to explain the processes that constitute the immediate background of suicidal acts. Examples of such models are the psycho-dynamically influenced model “the presuicidal syndrome” (Ringel, 1976) and the cognitive-behavioural model “the suicidal mode” (Rudd, 2000). Both these models suggest that a temporary altered state of mind is an important contributor to why suicidal acts take place.

The integrative perspective

During the 20th century there was quite a pronounced rivalry between explanations which focused primarily on environmental causality (i.e. psychological and social explanations) and biological explanations emphasising genetic causality. In recent years, new knowledge has however changed this picture: We now know that neurons can regenerate in the human adult brain (Eriksson et al, 1998). Brain structures that shrink when a person is depressed, such as

the hippocampus, can regenerate in response to treatment with antidepressants (SSRI:s) or ECT – but also in response to physical exercise (van Praag et al, 1999) and mental stimulation such as spatial learning (Ambrogini et al, 2000; Gould et al, 1999). Biological changes can thus be induced also by external stimuli. Further, it is now known that genetic expression is controlled by complex mechanisms that include environmental influence (Kandel, 1998; Gabbard, 2000). The genetic code will thus not alone determine the outcome. To put it down in one sentence: All human activity, including mental activities such as thoughts and feelings, are *mediated* by biological processes, which in turn are influenced both by genetic and environmental factors. This two-way communication between genes and environment opens up for an integration of different perspectives, such as the biological, social and psychological ones.

Today, there is a general consensus in suicide research and clinical psychiatry that *stress-diathesis models* are an appropriate way of explaining suicidality, i.e. that both predisposition and external stressors are needed to elicit suicidal behaviours. Integrating findings from different research perspectives van Heeringen (2001) proposed one such stress-diathesis model of suicidal behaviour.

Genetics and early life events are proposed as causes of the diathesis component, which is suggested to grow stronger over time: The longer the suicidal process is progressing, the smaller the trigger is needed to elicit a suicidal behaviour. The explanation of this is suggested to be that stress hormones (elevated because of external stressors and depression) have left trails in structures in the brain (foremost in the hippocampal structures), resulting in increasing neuropsychological impairment (e.g. impaired memory functions), which in turn leads to decreased resilience towards stressors.

The stress component of the model is described from three perspectives: Psychiatrically, depression is the primary stressor. Biologically, stress is mediated by the HPA (hypothalamic-pituitary-adrenal) axis and the noradrenalin-adrenalin-system. From the psychological perspective stressors (events triggering suicidal behaviour) are defined as “events related to the integration of the individual in the social system in which they live” (threat to “sameness” or “ranking”). It is pointed out that the impact of the events is related to the way they are perceived by the individual, and that this perception of events is mediated by trait-dependent characteristics and thus is part of the diathesis for suicidality. This stress-diathesis model further incorporates psychological dimensions such as inability to deal with aggression, impaired problem solving ability and the “arrested flight” mechanism, and suggests biological representations of these.

The inner perspective on suicidality

An additional perspective of viewing and understanding suicidality is to focus on how it is experienced and viewed by the persons who are suicidal. This “subjective”, “inner”, or “lived experience” perspective has however been given very limited space in suicide research. Perhaps the views of the patients have not been given that much interest because they have been considered lacking in insight and to be subjective. However, even if experiences and views do not represent an “objective truth”, they have real consequences which in turn may be of great relevance to suicide prevention. (It can further be discussed whether such a thing as an objective truth exists at all, but this is beyond the scope of the present thesis.) In order to help suicidal persons it seems crucial to understand what this suicidality is to them, why they think it exists and how they think it might be stopped.

In recent years, the interest in suicidality as experienced by the individual has been given more interest. For instance, Schneidman in 1998 stressed the importance of studying the phenomenology of suicide and to focus on “the suicidal drama in the life of the mind”.

Beskow and co-workers (2005) proposed a model called “the language of suicidality” in which they attempt to view suicidality from an inside perspective.

Suicide research is to a large extent carried out according to medical research traditions by researchers with backgrounds as health care professionals. An additional help in putting focus onto the experiences and views of suicidal persons is the increasing acceptance of, and use of, qualitative research methods within medical research.

Treatment of suicidality

Treatment of psychiatric disorders is important to prevent suicidal acts. Given the domination of the psychiatric perspective on suicidality as a symptom of psychopathology, psychiatric treatment is the suicide preventive measure which has been most emphasised in suicide prevention. It has been observed that the decrease in overall suicide rates since the end of the 1970'ies has coincided with an increase in prescriptions of modern antidepressants (SSRI:s) (Isacsson, 2000; Henriksson, 2004). It is however unclear whether the decreasing suicide rates can be attributed to the increasing prescription rates.

To prove effectiveness of a treatment randomised controlled trials (RCT:s) are golden standard. Suicide is a rare phenomenon - even in risk groups such as suicide attempters only a small fraction of these go on to complete suicide. In the context of proving treatment efficacy this is, somewhat paradoxically, actually a problem: Because so few suicides occur, very large patient samples are required to prove statistically significant reductions of suicide rates. If however repetition of non-fatal suicidal acts is chosen as an outcome variable there is a better chance of proving a statistically significant treatment effect.

Reviewing RCT:s, Hawton and colleagues (1998) only found two studies which proved statistically significant reductions of repeated self-harm: one comparing flupenthixol with placebo in multiple attempters and another one comparing dialectical behaviour therapy (DBT) with standard psychiatric treatment. Arensman and Hawton recently (2004) reviewed the RCT:s conducted since 1998, and found that some additional forms of treatment have proved statistically significant reductions of repetition rates: paroxetine vs. placebo (one study), cognitive/behavioural therapy with elements of problem-solving vs. standard aftercare (two studies including the recent RCT by Brown et al [2005], published after the cited review), and psychoanalytically oriented therapy vs. standard treatment (two studies). Additional evidence that DBT (compared to standard aftercare) reduces repetition rates among patients with borderline personality disorder was also found (one study).

It may however not only be of interest to prevent suicidal acts, but also to make life better in general. Looking at other endpoints may therefore also be important. A meta-analysis of six RCT:s of problem-solving therapy revealed that such treatment was effective in reducing levels of hopelessness, depression and numbers of reported problems (Townsend et al, 2001). Qualitative evaluations of treatments are also important. One such example is an interview study by Perseus and co-workers (2003), who investigated patients' and therapists' views on DBT to find out what elements of treatment were perceived as helpful, and why.

Aspects of suicidality addressed in the present thesis

Different aspects of suicidality are explored in this thesis: risk factors for suicide after attempted suicide, differences between male and female suicide attempters, and the views of suicide attempters on their suicidality. The act of attempted suicide thus constitutes a common

point of departure for these efforts to understand suicidality. A brief overview of the characteristics of suicide attempters will therefore first be given:

Characteristics of suicide attempters

Suicide attempters constitute a heterogeneous group of people in terms of age, sex, social background and circumstances, psychiatric disorders and other clinical characteristics (Linehan, 1986; Dieserud et al, 2000; Beautrais, 2001; Mann, 2002). Approximately 35-50 % of suicide attempters have made one or more previous attempts (e.g. Öjehagen et al, 1991; Foster et al; 1997; Haw et al, 2001), and for every suicide attempt a person makes, the risk of repetition increases (Leon et al, 1990; Tejedor et al, 1999; Oquendo et al, 2002).

Many factors have been shown to be related to suicide attempts: younger age, female gender, unmarried status, unemployment (Alderson, 1974; Andrus et al, 1991; Palsson et al, 1991; Platt & Kreitman, 1985; Sorenson & Rutter, 1991; Stack & Wasserman, 1995), negative life events and difficulties such as sexual and physical abuse, loss of a significant other (e.g. Grossman et al, 1991; Morano et al, 1993) and weak social support (e.g. Magne Ingvar et al, 1992). A family history of suicide or attempted suicide is another risk factor for attempted suicide (e.g. Grossman et al, 1991). More than 90 % of suicide attempters suffer from some form of psychiatric disorder at the time of their attempt (Beautrais, 1996; Haw et al, 2001). Axis I disorders such as mood disorders, substance abuse, schizophrenia (Suominen et al, 1996), and adjustment disorder (Iliev et al, 2000) are common among suicide attempters.

Personality disorders are however also common; co-morbid borderline personality disorder is present in up to 48% - 55% of all suicide attempters (Bongar et al, 1990; Söderberg, 2001). Chronic pain conditions have also been found to increase the risk of suicide attempts.

Impulsivity, hopelessness, memory biases, dichotomous thinking, cognitive rigidity (Williams & Pollock, 2000), low self-esteem and external locus of control (low sense of mastery) (Wenz, 1976; Topol & Reznikoff, 1982) are psychological features that have been found to characterise suicide attempters.

Biologically, there is vast evidence of a correlation between altered serotonergic activity and suicide attempts (e.g. Åsberg et al, 1976; Mann et al, 1992; Arango et al, 1995). There is also data, although less extensive, suggesting abnormalities in other neurotransmitter systems, such as the noradrenergic, dopaminergic, GABAergic and glutamatergic systems (Träskman-Bendz & Mann, 2000). Further, abnormal levels of stress-related peptides (Westrin, 1999) and low levels of cholesterol have been linked with suicide attempts (Maes et al; 1994; 1997).

Many of these features are also related to suicide risk whereas the relation with completed suicide is less certain for others.

Risk factors for suicide

Different research approaches have been used to determine risk factors for suicide: psychological autopsies, retrospective comparisons of suicide rates between different groups (testing hypotheses that certain groups have higher suicide rates than others, e.g. by linking a register of education with a register of causes of death) and prospective studies of risk groups, such as psychiatric patients or suicide attempters.

General suicide risk factors

Socio-demographic features over-represented among suicides are male gender, older age, being unmarried, unemployed and living alone (e.g. Dublin, 1963; Maris, 1985).

Life events identified as risk factors in psychological autopsy studies are for example interpersonal conflicts, domestic violence and sudden economic bankruptcy (Gururaj et al, 2004). Major role losses have also been given as a suicide risk factor (Breault, 1986; Maris, 1981). Several studies have found that most individuals experience one or more stressful life

events prior to suicide (also true for attempted suicide) (Paykel et al, 1975; Rich et al, 1988; Heikkinen et al, 1995; Welch, 2001).

Between 30 % and 50 % of suicide victims have made *previous suicide attempts* (Foster et al, 1997).

More than 90 % of suicide cases fill the criteria of a *psychiatric disorder* (e.g. Isometsä et al, 1995; Conwell et al, 1996). In a meta-analysis of follow-up studies of psychiatric samples (Harris & Barraclough, 1997) it was concluded that “virtually all mental disorders have an increased risk of suicide excepting mental retardation and dementia” and that the suicide risk was highest for “functional” and lowest for “organic” disorders, with substance misuse lying in between these. Among suicides, major depression is the most common diagnosis (40-60 % of suicides), followed by substance abuse (20-40 %), schizophrenia (10 %) and borderline personality disorder (5-30 %) (Michel, 2000). These figures are probably falsely low, as they do not take co-morbidity into account (Conwell et al, 1996). *Co-morbidity* between two or more psychiatric diagnoses is namely common among suicide victims. For example, about 50 % of depressed suicide victims have been reported to also suffer from substance abuse (Cheng, 1995; Conwell et al, 1996; Berglund & Öjehagen, 1998). Another example, provided by a Finnish study, is that 31 % of suicides who suffered from major depression also suffered from personality disorder (Henriksson et al, 1993). Concerning suicide risk in psychiatric samples it has further been found that recent discharge from psychiatric in-patient care is associated with suicide risk (Goldacre et al, 1993).

Examples of psychological suicide risk factors identified among psychiatric patients are impulsivity (Apter et al, 1993) and hopelessness (Fawcett et al, 1987; Beck et al, 1985; Beck et al, 1990).

It has long been known that many suicide victims suffer from *somatic illness*: about 50 % of them, according to early studies (Robins et al, 1959; Dorpat & Ripley, 1960).

Risk factors identified by recent population-based record-linkage studies are being borne by a teenage mother and having low birth weight (Mittendorfer-Rutz et al, 2004) and being a trained physician or nurse (compared with other university graduates and the general population) (Hem et al, 2005).

It is unclear whether homosexuals are overrepresented among suicides, as the true prevalence of homosexuality is uncertain, and as the sexual orientation of suicide victims is not always known (Muehrer, 1995, referred to by Catalan, 2000).

It has been pointed out that there are some serious limitations of making psychological autopsy studies of suicide victims to determine suicide risk factors, the most important one being the limitation on the range of factors that can be examined in psychological autopsies. For instance, only few biological variables can be determined post mortem, and not much can be concluded about the psychological mechanisms of the suicidal process (Hawton & van Heeringen, 2000). In determining risk factors, prospective designs are therefore desirable. Population cohorts can be followed up concerning factors that can be derived from records, but to follow concerning factors determined through e.g. psychometric ratings or tissue samples, one needs to select risk groups to follow. As a suicide attempt is a powerful and long term suicide risk factor suicide attempters are one such important group to follow up. However, only a limited number of prospective studies investigating suicide risk among suicide attempters have been conducted.

Prospectively determined suicide risk factors among suicide attempters

An overview of prospectively determined suicide risk factors following attempted suicide is presented in table 1.

Table 1. Risk factors for suicide following attempted suicide

Type of risk factor	Risk factor	References
Socio-demographic	male sex	Holley et al, 1998; Soukas et al, 2001; Suominen, 2004
	older age	Holley et al, 1998; Nordentoft et al, 1993; Nordström et al, 1995; Rygnestad, 1997; Soukas & Lönnqvist, 1991
	living alone	Nordentoft et al, 1993
	divorced/widowed	Hawton, 2000
	living in a low income area	Holley et al, 1998
Psychiatric	unemployment	Hawton, 2000
	mental disorders in general	Soukas & Lönnqvist, 1991
	depression	Nielsen et al, 1990
	substance abuse (most commonly of alcohol)	Beck & Steer, 1989; Nielsen et al, 1990; Nielsen et al, 1995; Suominen, 2004
	schizophrenia	Hawton, 2000
Psychological	sociopathic personality disorder	Hawton, 2000
	previous psychiatric treatment	Soukas et al, 2001
Biological	low flexibility of defence mechanisms	Fribergh et al, 1992
Somatic	low levels of CSF 5-HIAA	e.g. Nordström et al, 1994
Somatic	Somatic illness	Nielsen et al, 1990; Soukas et al, 2001
Suicide attempts:		
<i>Behavioural / objective features</i>	occurrence of previous suicide attempts & higher number of attempts	Soukas & Lönnqvist, 1991; Soukas et al, 2001; Nordentoft et al, 1993
	“violent”, “dangerous”, “high lethality” attempt	Holley et al, 1998; Nielsen et al, 1995; Soukas & Lönnqvist, 1991
<i>Motivational / subjective features</i>	non-impulsive attempt, taking more precautions to prevent discovery	Soukas & Lönnqvist, 1991; Beck & Steer, 1989
	- “I wanted to die”; genuine intention to die	Ekeberg et al, 1994; Soukas et al, 2001
	- motivated by “internal perturbations” (e.g. a terrible state of mind)	Holden et al, 1998
<i>Behavioural + motivational features</i>	- affirming “I lost control and I don’t know why I did it”, or stating “I don’t know/don’t remember”	Hjelmeland et al, 1998
	high scores on the suicidal intent scale	Kotila & Lönnqvist, 1989
		Niméus et al, 2002

Sex differences and gender issues in relation to suicidality

One of the most consistent research findings in the literature on suicidal behaviour is that men have higher suicide rates than women, even though women make more suicide attempts than men (Cantor, 2000; Kerkhof, 2000). This inverse relationship, often referred to as “the gender paradox in suicidal behaviour” has raised many questions. In relation to risk factors for suicide, it raises the question whether these differ between male and female suicide attempters. Not many studies have investigated this, but there are a few reports of such differences: Some studies have found older age to be a suicide risk factor for men only (Rygnestad, 1997; Soukas, Lönnqvist, 1991), whereas others have found advancing age to be a risk factor for women only (Holley et al, 1998; Nordström et al, 1995). Hjelmeland (1998) found that higher scores for females and lower scores for males on the motive “I lost control and don’t know why I did it” were associated with risk of future suicide.

Several conceivable explanations behind the “gender paradox of suicidal behaviour” have been proposed. To begin with, men use more violent methods than women (Canetto & Sakinofsky, 1998). This is often given as the main reason, but it has been argued that the phenomenon is more complex than that (e.g. Beautrais, 2002). Other contributing explanations are differences in psychopathology between men and women, for instance that substance abuse, aggressive, impulsive and externalising behaviours are more common among men (Rich et al, 1992; Beautrais, 2002). Depression is on the other hand more common among women, but it has been suggested that depression more often is recognised and adequately treated in females than in males (Canetto & Sakinofsky, 1998). This has in turn been attributed to the fact that women are more help-seeking: Epidemiological data indicate that the consultation rate and help seeking by men in the general population is lower than for women, especially in the case of emotional problems and depressive symptoms. There is empirical evidence that the lower help seeking rate of men cannot be explained by a better health but must be attributed to a discrepancy of need and help seeking behaviour (Möller-Leimkühler, 2000).

Besides showing more readiness to seek and accept help, it has been proposed that women in general are protected from fatal suicide by considering decisions in a relationship context, taking many things into consideration, and feeling freer to change their minds (Murphy, 1998). Women have also been found have a greater fear of death and injury than men (Rich et al, 1992).

Culturally influenced attitudes toward gender and suicidal behaviour have also been suggested to contribute: A common attitude in the western world has been that killing one-self is a masculine act (e.g. Linehan, 1973), and suicide tends to be viewed more negatively if the person who commits suicide is a woman (Deluty, 1988; 1989). It has further been found that men have more permissive attitudes towards suicide than women (Deluty, 1988; 1989). Nonfatal suicidal acts, on the other hand, tend to be perceived as feminine, youthful behaviour (Canetto, 1997), and young female suicide attempters receive more sympathy than older women and men (of all ages) (Stillion et al, 1989). Such attitudes have been proposed to “influence the scenarios chosen by females and males, once suicide becomes an possibility, as well as the interpretations of those who are charged with determining whether a particular behaviour is suicidal (e.g. coroners)” (Canetto & Sakinofsky, 1998).

Patients’ views on the background of suicide attempts

Underlying problems (causes)

Whereas causes of suicidality as perceived by professionals (such occurrence of psychiatric disorders, physical illness and various social problems) have been investigated to a great

extent, patients' views on causes of suicide attempts have been investigated only to a limited extent. A self-rating form for assessment of underlying problems (also referred to as causes and precipitating factors in various studies) was constructed within the WHO/EURO Multicentre Study on Parasuicide (Stiles et al, 1993; Kerkhof et al, 1993). According to investigations within this multi-centre study, suicide attempters often affirm feelings of loneliness, mental illness/psychiatric symptoms, a recent or expected change in one's life situation, and interpersonal problems as major underlying problems of the suicide attempt (Michel et al, 1994; Schnyder et al, 1999; Söderberg, 2004).

De Leo and co-workers (1999) reported that physical illness is frequent among suicide attempters (about 50 %). However, only 42 % of patients with physical illness rated their somatic problem as a factor precipitating the attempt and only 22 % of them judged it to be major one. Further, subjects with physical illnesses considered psychiatric symptoms and disorders to be relevant factors in triggering suicidal behaviour, in fact even to a greater extent than physically healthy persons.

Söderberg and co-workers (2004) found that men more often than women mentioned economical problems as a precipitating factor of attempted suicide. Hjelmeland (2002 b) did not find any gender differences in patient rated causes of suicide attempts. That study however used a shorter version of problem questionnaire which did not contain any item concerning economical problems.

Motives

Whereas causes (above referred to as underlying problems) explain an action in terms of the properties of the environment that brought it about or made it take place, reasons are used to explain an action by stating the intentions behind it (Hinkle & Schmidt, 1984). In the suicidological literature there is confusion about the concepts reason, motive and intention in explaining why people engage in suicidal behaviour. The term motive will in the present thesis be used to describe the intentions of suicide attempts.

Previous studies of suicide attempters' perceived motives for attempting suicide have shown that escape oriented motives (e.g. to escape from an unbearable situation or a terrible state of mind) are most the common ones, whereas manipulative motives such as getting revenge or to make someone feel guilty seldom are confirmed by suicide attempters. Other communicating motives, such as to get help, are usually reported in an intermediate frequency (Bancroft et al, 1976; Williams, 1986; Tulloch et al, 1994; Boergers et al, 1998; Schnyder et al, 1999; Söderberg et al, 2004). Most studies have found that suicide attempters in general affirm several motives.

In the 1970'ies Bancroft and co-workers (1976; 1979) designed a scale for motive assessment. This scale was revised in the 1990'ies within the WHO/EURO Multicentre Study on Parasuicide, resulting in the Motives for Parasuicide Questionnaire (MPQ) (Kerkhof et al, 1993) which comprises 14 suggested motives for deliberate self-harm. In 2002 the WHO/EURO Multicentre Study on Parasuicide reported that people in different countries tend to give the same motives for attempted suicide, and that the motives do not vary greatly with gender or age (Hjelmeland et al, 2002 a).

There however seems to be some relation between motives and psychological and psychiatric features: Williams (1986) reported that high-hopelessness suicide attempters found escape motives to be the most central ones, whereas low-hopelessness patients more often gave interpersonal motives (e.g. to get help, show someone love, or make someone feel guilty). An association between hopelessness and being motivated by a wish to die has been found among adolescent suicide attempters (Boergers et al, 1998; Grøholt et al, 2000). The latter study also found that those who reported a wish to die reported more depression and other internalising problems whereas those who stated other motives showed more externalising behaviour.

It has been found that suicidal acts among patients diagnosed with borderline personality disorder often are interpreted as manipulative by health professionals (Samuelsson et al, 1997; Schnyder et al, 1999). Söderberg and co-workers (2004) however found no differences in patient-rated motives between borderline personality disorder patients and patients with other psychiatric diagnoses. Apart from these findings, little is known about the relations between motives for suicide attempts and other variables related to suicidality.

The use of questionnaires such as the MPQ may facilitate the assessment of motives for some respondents, and facilitates quantification and comparisons between samples. However, when questionnaires with given response alternatives are used, only these responses will be captured. It may further be difficult to interpret the findings of questionnaire studies: How is it for instance that the same person can state that “I lost control and don’t know why I did it” and “I wanted to die” and “I wanted to escape from an unbearable situation”? A more detailed understanding of how people reason before the attempt suicide can be reached through semi-structured interviews.

Aims

The overall aim of this thesis is to increase the understanding of suicidality, with attempted suicide as the common point of departure. More knowledge and understanding of suicidality may contribute to improving care and treatment of suicide attempters.

The specific aims were:

1. to identify suicide risk factors (among factors present and rated at the time of a suicide attempt), and to investigate whether these risk factors are the same for men and women
2. to investigate what underlying problems (causes) suicide attempters find important for attempting suicide, and to investigate whether and how the type and number of problems given by the patients were related to socio-demographic data and clinical characteristics (psychiatric diagnoses and other ratings) known to be of importance for suicidal behaviour
3. to survey what motives patients give for attempting suicide and to investigate whether and how the type and number of motives given were related to socio-demographic data and clinical characteristics known to be of importance for suicidal behaviour.
4. to describe the experiences of being suicidal and making a suicide attempt by exploring perceived causes, triggers and motives for attempted suicide, the decision-making process, the experiences of the immediate suicide attempt situation and patients’ views on what might prevent them from attempting suicide.

Methods

Different approaches to gain understanding of suicidality have been used in this thesis, ranging from an epidemiological perspective in the first paper to a perspective of individuals in the last one. In the first study risk factors for suicide were identified in a large sample of suicide attempters (N=1052). A step closer towards the individual perspective was made in the second and third studies, in which we by use of standardised self-rating forms investigated a smaller number of suicide attempters' views on causes (N=54) and motives (N=53) for their suicide attempts. To gain a deeper and more nuanced understanding of suicidality from the patient perspective interviews were finally conducted with ten suicide attempters in the fourth study.

Both quantitative (paper I-III) and qualitative (paper IV) methods have thus been used in this thesis. Before describing these methods in further detail, the clinical setting and sampling processes will be outlined:

Clinical setting and sampling

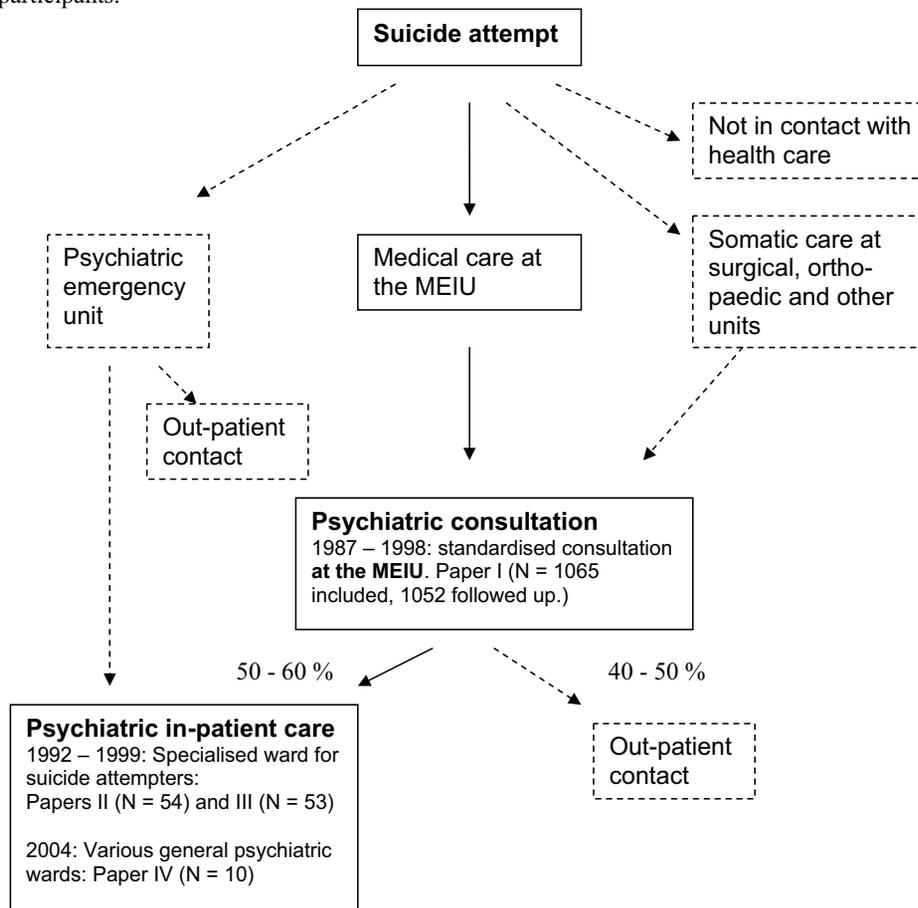
The studies of this thesis were conducted at the Suicide Research Centre of the Department of Psychiatry, University Hospital in Lund, Sweden. An overview of the flow of suicide attempters through the local health care system, indicating the places of study participant recruitment, is given in figure 1.

Lund University Hospital has a catchment area of about 215 000 inhabitants. It has been approximated that some 190 suicide attempters aged 18 years or older are admitted to the medical emergency inpatient unit (MEIU) of Lund University Hospital every year (Niméus, 2000).

All somatic care units at the Lund University Hospital request a psychiatric consultant when a patient is admitted due to a suicide attempt, in order to assess suicide risk and need of psychiatric care and treatment. The majority of suicide attempts are performed by means of deliberate self-poisoning and for this reason a large proportion of suicide attempters are initially treated at the MEIU.

After the psychiatric consultation, suicide attempters are either admitted to psychiatric inpatient treatment, or referred to out-patient treatment. It has been estimated that approximately 50-60 % of suicide attempters assessed at the MEIU in Lund are referred to inpatient treatment and some 40-50 % to out-patient contact (Niméus, 2000). High suicide risk as evaluated by the consultation is one of the criteria for admission to psychiatric in-patient treatment.

Figure 1. Suicide attempters in the health care system and places for recruitment of study participants.



Paper I

During the years 1987 - 1998 a large clinical project on suicide prevention was run by the suicide research centre in Lund at the MEIU. As part of this project, a standardised consultation material was designed (Öjehagen et al, 1991). This material included standardised rating scales (e.g. the Suicidal Intent Scale [Beck et al, 1974]) and brief guides for semi-structured interviewing concerning socio-demographic data, method used for the suicide attempt (violent vs. non-violent methods), occurrence of previous suicide attempts, current or previous contact with psychiatry. Psychiatric diagnoses according to DSM-III-R were also assessed.

Consultations were in most cases performed within 24 hours after the admission of the patients. During weekdays consultations at the MEIU were performed by a team of a psychiatrist and a social worker, according to the consultation material. During weekends and holidays consultations were carried out by psychiatrists alone and not by use of the standardised consultation material.

Paper I is based on data from the team consultations, and includes approximately half of all suicide attempts admitted to the MEIU during the years 1987-1998 (1065 of about 2100). The rest thus consists of suicide attempts occurring during weekends and holidays, plus re-attempts carried out by people already included in the study. (In case of repetition of attempted suicide during follow-up, only the first evaluation was included in this study. The attempt from which data was included will be referred to as the index suicide attempt.) During the period February 1995 - April 1997 all suicide attempters admitted to the MEIU were included in the study (unless they already were in the study), also during weekends and holidays. In order to investigate the representativeness of the sample, the consecutive cases (n = 253) were compared to the rest (n = 722). The consecutive sub-sample did not differ from the rest of the sample regarding sex distribution (57 % women vs 62 % women, respectively; $p = 0.21$, NS) or age (median (quartiles) 36 (25; 50) years vs. 37 (26; 49) years). The suicide frequency was somewhat higher in the consecutive sub-sample than among the rest, but this difference was not statistically significant (5 % vs. 3 %, $p = 0.092$, NS). The overall mortality was lower among the consecutive cases than among the rest, but without reaching statistical significance (10 % vs. 15 %, $p = 0.061$, NS). Furthermore, a one-year follow-up study of another early sub-sample showed no differences in suicide rates between the included suicide attempters and the non-included ones (Öjehagen et al, 1992). Follow-up concerning the occurrence of completed suicide and death of other causes was conducted in July 2000. Information was retrieved from the Lund Department of Forensic Medicine and from the Swedish National Central Bureau of Statistics. In 13 cases it was impossible to gain information about whether they were alive or not (most often due to emigration), leaving 1052 cases for analysis.

Papers II and III

During the years 1986 - 1999 there was a specialised psychiatric ward to which suicide attempters in need of psychiatric in-patient treatment were admitted. At this ward research was conducted using both biological and psychosocial approaches within a research programme. To be included in the programme, one had to be in voluntary psychiatric treatment at the ward, and give informed consent to participate. Further, patients who were too ill to wait for medical or electroconvulsive treatment until biological test material (e.g. cerebrospinal fluid) had been collected were not included, and neither were patients who were hospitalised for only a few days. Some additional patients were missed during periods of extra high work load on the clinicians. Unfortunately, information about all the suicide attempters who were admitted to this ward but not included in the research programme is not available. It was however found that suicide attempters who refused to participate in the research programme during the period 1986 - 1998 did not differ from those who participated during the same period regarding age, sex or previous attempts (Niméus, 2000).

The patients in the sample of papers II (N = 54) and III (N = 53) represent 42 % and 41 %, respectively, of the suicide attempters included in the research programme at this ward during the years 1992-1999 (N = 128). (Fifty-three persons rated both problems (paper II) and motives (paper III). One additional person rated problems, but not motives.) Assessment of problems and motives were included as a part of the social investigation of the research programme.

However, due to lack of time and change of social workers, motive and problem assessments were not always performed. Thus there was no systematic selection of research patients into sample II/III. Our sample was found to be representative of all research patients treated at the psychiatric ward following a suicide attempt between 1992 and 1999 (N = 128) concerning distribution of diagnoses, age, gender, number of previous suicide attempts and scores on the clinical rating scales used in papers II and III.

Paper IV

In recent years suicide attempters have been admitted to various general psychiatric wards. The ten patients included in the fourth study, which was conducted in 2004, were thus recruited from different psychiatric wards and not within the framework of any larger study project.

Patients who were admitted due to a suicide attempt, and who were assessed by the senior psychiatrist at the ward as emotionally able (not in a state so vulnerable that the interview was likely to do harm) and cognitively able (e.g. not suffering from dementia) to participate in an interview study could be included if they also were at least 18 years old, able to speak Swedish, and gave informed, written consent to participate in the study. The last necessary condition for inclusion was that the interview could be conducted within three weeks after the attempt.

Information about the occurrence of admissions of patients who had carried out what might be defined as a suicide attempt was given to the interviewer by the psychiatric emergency unit at the Lund University Hospital. This psychiatric emergency unit is the first instance of care for suicide attempters who are not in need of somatic treatment, and also registers all psychiatric consultations with suicide attempters in somatic care. When a possible suicide attempter had been admitted to a psychiatric ward, the psychiatrist in charge of that ward was contacted in order to verify that inclusion criteria were met. If they were, the psychiatrist was asked to provide the patient with oral information about the project, along with a written information sheet. Patients who then accepted to participate in the study were included.

For practical reasons (the limited period of time at disposal to the interviewer/first author for interviewing, and the relatively small number of in-patient admissions of suicide attempters during that period) no purposive sampling strategy could be employed. Elderly suicide attempters are sometimes admitted to the psycho-geriatric ward, from where informants also could be recruited. However, no suicide attempters who were assessed as cognitively and emotionally able to participate in an interview were admitted to this ward during the interview period.

Participant characteristics

Characteristics of the patients included in papers I-IV are presented in table 2.

Table 2. Participant characteristics.

Characteristics	Paper I	Paper II	Paper III	Paper IV
Patients, N	1052	54	53	10
Age, mean \pm SD (range)	40 \pm 17 (15 - 96)	36 \pm 14 (18 - 67)	36 \pm 13 (18 - 67)	41 \pm 14 (20 - 61)
Females, n (%) / males, n (%)	638 (61) / 414 (39)	29 (54) / 25 (46)	28 (53) / 25 (47)	5 / 5
Married/cohab./partner, n (%)	422 (42)	19 (35)	19 (36)	6
Divorced/widowed, n (%)	254 (25)	8 (15)	7 (13)	2
Single/never married, n (%)	332 (33)	27 (50)	27 (51)	2
Employed/studying, n (%)	538 (55)	36 (67)	35 (66)	4
Unemployed / in activity project for unemployed, n (%)	187 (19)	14 (26)	14 (26)	1
Sick leave/disability pension, n (%)	129 (13)	2 (4)	2 (4)	4
Old age pension, n (%)	111 (11)	2 (4)	2 (4)	0
Housewife/parental leave, n (%)	8 (1)	^{b)}	^{b)}	1
Repeater status, n (%)	461 (45)	19 (37)	18 (34)	9
Violent suicide attempts, n (%)	55 (5)	17 (33)	17 (32)	3
Major depression, n (%)	172 (19)	15 (28)	14 (26)	3
Dysthymia, n (%)	47 (5)	2 (4)	2 (4)	0
Depression NOS, n (%)	92 (10) ^{b)}	5 (9) ^{b)}	5 (9) ^{b)}	2 ^{c)} 3
Bipolar mood disorder, n (%)				3
Adjustment disorder, n (%)	334 (36)	14 (26)	14 (26)	0
Substance use disorder, n (%)	94 (11)	3 (6)	3 (6)	1
Anxiety disorder, n (%)	23 (2)	3 (6)	3 (6)	0
Psychosis, n (%)	70 (8)	^{b)}	^{b)}	0
Other axis I diagnoses, n (%)	38 (4)	5 (9)	5 (9)	0 ^{d)}
Comorbid personality disorder, n (%)	^{b)}	20 (38)	20 (38)	1 ^{e)}
Personality disorder only, n (%)	6 (0.6)	7 (13)	7 (13)	2
No psychiatric diagnosis, n (%)	36 (3)	0	0	0
Current voluntary psychiatric in-patient treatment, n (%)	^{a)}	54 (100)	53 (100)	6

a) not applicable, b) data not available, c) in one case co-morbid with substance abuse, d) one person had previously been diagnosed with an eating disorder, e) probably falsely low number. (For some variables there were some missing cases. As valid percentages are given, some percentages may seem too high.)

Instruments for data collection

Socio-demographic data (age, sex, vocational status, marital status etc.) and psychiatric diagnoses were included in all papers.

Psychiatric diagnosis

In paper I a psychiatrist (not the same one for all patients) diagnosed psychiatric and somatic disorders according to the DSM-III-R (American Psychiatric Association, 1987), but without use of structured interviews. In papers II and III the patients were diagnosed according to DSM-III-R, Axis I and II through structured interviews conducted by two independent psychiatrists. In case of disagreement between the psychiatrists consensus was reached through discussion. There is unfortunately no information available on how often there was disagreement. In paper IV clinical diagnoses according to ICD-10 (2005) were included. Clinical diagnoses are less reliable than diagnoses based on structured interviews by two independent psychiatrists. It is possible that more than the three informants reported to have a personality disorder would have filled criteria for a personality disorder. However, the primary focus of paper IV was on the informants' experiences, irrespective of psychiatric diagnosis. We therefore considered it satisfactory to report clinical diagnoses.

Besides these data, standardised ratings of a number of clinical characteristics were used in papers I-III:

Assessment of problems (paper II)

The questionnaire which was employed to assess problems contributing to attempted suicide was formulated especially for the European Parasuicide Study Interview Schedule (EPSIS). The EPSIS was designed within the Repetition Prediction Project of the WHO/EURO Multicentre Study on Parasuicide (Kerkhof et al, 1993). With permission of the WHO/EURO Multicentre Study on Parasuicide we used the Nordic extended version of the questionnaire, comprising 17 different problems (table 3). The answers could be 'none', 'some' or 'great' (0-2 p), referring to the degree of importance that the patient felt each suggested problem had for the suicide attempt. Patients were asked to leave out problems that were not applicable to their situation (for example not to answer anything to 'problems with your children' if one did not have children).

Assessment of motives (paper III)

In paper III the Motives for Parasuicide Questionnaire (MPQ) was employed. This self-report form was especially designed for the European Parasuicide Study Interview Schedule (EPSIS) (Kerkhof et al, 1993) based on the work of Bancroft and co-workers (1976; 1979). The EPSIS, in turn, is an instrument constructed for the Repetition Prediction Project of the WHO/EURO Multicentre Study on Parasuicide (Stiles et al, 1993). The MPQ consists of 14 suggested motives, to which the respondents give answers on a three-point (0-2) scale: no, minor or major influence.

Problems and motives were assessed at the psychiatric ward, within 14 days after admission. On this occasion a social-worker gathered information about socio-demographics and previous suicidal behaviour through a semi-structured interview. The social-worker was always present when the patients rated problems and motives as emotional support and to answer questions about the rating forms.

Suicidal intent (paper I-III)

The patients' suicidal intent was investigated at a Medical Emergency Intensive Unit (MEIU) by means of the Suicidal Intent Scale (SIS). This scale consists of 15 items. Eight of them deal with objective circumstances of the suicide attempt (such as how much preparations were made) and seven items concern the patient's own attitudes and feelings towards the attempt (aims of the act). Maximum total SIS score is 30 points (Beck et al, 1974 b). The median scores were 13 (range 0-30) in paper I and 18 (range 1-26) in the sample of papers II and III.

Social network (paper II)

The social network was assessed using an abbreviated Swedish version of the Interview Schedule for Social Interaction, ISSI (Henderson et al, 1980; Undén & Orth-Gomér, 1989). This version is a self-rating scale, which measures social integration and attachment. Social integration is a complex concept including relations in which interest is shared, relations that give reassurance of personal worth, and alliances that give possibility for both instrumental and other types of support in difficult situations. Attachment refers to the need of deep emotional relations (Undén & Orth-Gomér, 1989). The ISSI measures the quality and quantity of the social network and consists of four sub-scales: availability of social integration, availability of attachment, adequacy of social integration, and adequacy of attachment. Maximum score is 30 points, designating optimal social interaction. The reliability and validity have been tested in Australia and Sweden and were found to be satisfactory (Henderson et al, 1980; Undén & Orth-Gomér, 1984). In our sample the median score was 13 (ranging from 0 to 29).

General psychopathology (paper III) and depressive symptoms (paper II-III)

Psychiatric symptoms were assessed using the Comprehensive Psychopathological Rating Scale (CPRS) (Åsberg et al, 1978), which comprises 65 items (0-3 points) screening for psychopathology of various kinds. The median score of the sample was 20.3 (range 3.0-46.5). Depressive symptoms were measured by means of the Montgomery-Åsberg Depression Rating Scale (MADRS), which consists of 10 items extracted from the CPRS. Maximum score is 30 points (Montgomery & Åsberg, 1979), and the median score of the sample was 8.8 (range 0.5-21.5). The evaluation was performed by a psychiatrist at the research ward.

Hopelessness (paper III)

The patients' sense of hopelessness was rated by means of Beck's Hopelessness Scale (HS), which is a self-rating scale consisting of 20 items (Beck et al, 1974 a). This scale was constructed to assess pessimism, and the constructors gathered items from a test on future attitudes and from empirically well-known pessimistic statements of psychiatric patients. Maximum score is 20 points and the median score of the sample was 9 (1-19) points.

Statistics

All statistical analyses were performed in SPSS (Statistical Package for the Social Sciences), version 10.0 (Norusis, 1995). The level of statistical significance was set to $p < 0.05$.

To analyse cross-tabulations Chi-square tests and Fisher's exact tests were used. Other comparisons between subgroups were carried out with non-parametric tests, Mann-Whitney

U-tests (for two-group comparisons) and Kruskal-Wallis tests (for three-group comparisons). Spearman's rho was used for bivariate correlations.

In order to identify risk factors for completed suicide (paper I), survival analyses were employed. Kaplan-Meier (univariate) and subsequent Cox regression (multivariate) analyses were carried out for the sample as a whole and separately for men and women. The Kaplan-Meier and Cox regression analyses are suitable methods to determine risk factors in cohorts where the follow-up time differs a great deal between subjects, as the aspect of personal time at risk is taken into account in these analyses. Most of the variables reaching statistical significance as risk factors for completed suicide in Kaplan-Meier analyses were entered in a Cox regression analysis (Enter) in order to investigate whether or not they were independent risk factors. The variable "previous or current psychiatric contact" was not entered in the Cox regression, as it was considered to be a "system variable", i.e. descriptive of the health care system rather than the patient and thus less suitable for inclusion.

In paper I there were missing values for one to two items on the SIS in 73 cases (8 suicides and 65 others). In order for these subjects to obtain a total SIS score that could be included in survival analysis, their missing values were replaced with the mode values of those particular SIS items. In another 67 cases (3 suicides and 64 others) there was no suicidal intent assessment at all. These were labelled as missing cases in the survival analyses.

Two of the 8 suicides (25%) in the group with mode values had a high SIS score (≥ 19) compared to 19 of the 39 suicides (49%) with no missing values ($p = 0.27$, NS). Eighteen of the 65 non-suicides (28%) in the "mode value group" had a high SIS score, as compared to 192 of 873 (22%) non-suicides in the group with no missing values ($p = 0.28$, NS).

The problems and motives were analysed by means of factor analyses (principal components with Varimax rotation) to identify underlying patterns in the responses, thereby reducing the number of items to a more manageable set of measures. Factor solutions were based on eigenvalues (>1), explained variance and logical content. Cronbach's alpha values were computed for the factors. Subscales ("factor values") were computed for the factors by summarising the item scores of respective factor. (Both problems and motives were rated on 0-2 point scales.) For an item to be included in a subscale the factor had to load more than 0.50 on the item.

Thirteen of the 14 motives were included in the factor analysis. The item "I wanted to die" was not included in the analysis since it was considered to differ in logical content from all other items, being the only item directly expressing a wish to die. The motive "I wanted to make things easier for others" did not load sufficiently into any of the factors, and was thus excluded when a second factor analysis was carried out. The internal dropout in the remaining 12 items was dealt with by pair-wise exclusion.

For the purpose of investigating eventual associations between the number of problems mentioned by each respondent and socio-demographic data, clinical characteristics and social network, an individual "problem ratio" was calculated. This was done in order to correct for the fact that the maximal number of possible problems was not the same for all patients. Each patient's number of problems was divided with his/her maximal number of possible problems (e.g. 5/16 or 5/17), resulting in a figure between 0 and 1. This figure will be referred to as the problem ratio. A problem ratio concerning only the number of problems of 'great importance' was also calculated, and is referred to as the $\text{problem}_{\text{great}}$ ratio.

A stepwise regression analysis with the $\text{problem}_{\text{great}}$ ratio as the dependent variable and marital status, social network (ISSI) and depressive symptoms (MADRS) as independent

variables was performed in order to investigate whether these three variables were independently associated with the problem_{great} ratio or not.

Qualitative research methods

General comments on qualitative vs. quantitative research methods

When one wants to study a phenomenon in order to gain knowledge of its characteristics – its *qualities* – it is suitable to use qualitative research methods. The aims of qualitative research studies are to answer questions such as “what is meant by X?” or “how is X experienced?”. On the other hand, if one wishes to answer research questions such as “how many X:s?” or “is X more efficient than Y?”, quantitative research methods should be employed (Malterud, 1996).

The results of qualitative research are not arrived at by means of statistical procedures or other means of quantification (Strauss & Corbin, 1990). Instead, the research questions are answered by means of systematic description and systematic interpretive analysis of the raw data, which usually consists of a text material (e.g. transcripts of recorded interviews).

Semi-structured interviews

The informants were interviewed on one occasion each, in most cases for about 80 to 90 minutes (ranging from 45 to 110 minutes). The interviews were conducted at respective psychiatric ward after a median time of six days (range 3 - 17 days). All interviews were carried out by the first author, and were recorded on audiotape. Before the start of the interview information was given about the study and the researchers (their professions and that they were not involved in clinical work at any of the wards), and the opportunity to ask questions was given. The informants were also asked about socio-demographic data before the start of the interview.

The interviews were semi-structured and addressed the following main aspects: 1) the experiences of the day when they attempted suicide, 2) why they had attempted suicide (causes, trigger factors, motives/intentions and how they had reasoned during the decision-making process), 3) whether anything could have prevented the suicide attempt 4) experiences of the care after the suicide attempt, 5) thoughts and feelings toward their present situation and 6) toward the future. 7) The role of their significant others in relation to their suicidal behaviour was also addressed in the interviews. The interview guide was developed on the basis of relevant literature, discussions with experts in the research area, and on the researchers' experience.

Questions were asked using a funnel approach, introducing new aspects with open-ended questions such as: “Could you tell me about the day when you attempted suicide?” followed by specifying questions (e.g. “What did you think then?”), interpreting questions (“If I understand it correctly, you mean that...?”) and some more specific questions such as “Was there anything in particular that made it happen on that day?”.

The interviewer transcribed all recordings word by word into text.

Method of analysis

The analysis of the interview text was inspired by manifest content analysis described by Berg (1998) and categorisation as described by Kvale (1996).

It is assumed that it is impossible to read a text without interpreting it in some way, and that several interpretations can be made on different levels of abstraction (Burnard, 1995). A manifest content analysis is conducted on a lower level of abstraction compared to latent

content analysis. In content analysis the process of analysing the text begins with efforts to understand the text as a whole and continues by the development of a consistent approach to account for the data (Sandelowski, 1995).

First the text was read several times and as open-mindedly as possible in order to gain an overall impression and apprehend essential features of the text. Given the limited space allowed for a journal article and the rich text material that resulted from the interviews, we found it necessary to focus on some aspects. Inspired by the first readings the aims of the analysis were thus specified to describing the following aspects: 1) background of the suicide attempt, 2) trigger factors, 3) motives (intentions), 4) suicide ideation, 5) decision-making, 6) the immediate suicide attempt situation, and 7) possible hindering/preventive factors. Meaning units concerning these aspects were identified and coded. The codes were then critically scrutinised, and organised into themes and sub-themes. The researchers reflected on and discussed the findings, taking the research question and their preconception into account. Initial reading of interview transcripts and development of ideas for further analysis was performed independently by the first and second authors. The first and second authors discussed and decided which aspects to focus analysis on, and subsequently discussed this with the third author. Preliminary results were discussed by the first and second authors for each step of the analysis, and also with the third author in several (but not all) steps.

Presentation

The results are described under seven headings corresponding to the above-described aspects (e.g. “background factors”). A number of themes, and in some cases also sub-themes, are described for each aspect.

As mentioned above, we found it necessary to focus on some aspects. Otherwise the description would have been more superficial and less interesting. Aspects that were not included were “experiences of the present care and treatment at the psychiatric ward”, “role of significant others”, and “outlook on the future”. The former aspect has been explored in other qualitative interview studies (e.g. Samuelsson et al, 2000). Outlook on the future will be described in a forthcoming article. Prioritising the process before attempted suicide (including motives and background factors) was also prompted by the fact that paper II and III concerned these matters. Such a method triangulation (using different methods to explore the same phenomenon) could namely further validate the results of papers II and III and bring clarity to some results that were difficult to understand (e.g. how it could be that many persons, when filling out questionnaires, affirmed both that they wanted to die, that they wanted to escape from an unbearable situation *and* that they had lost control and did not know why they did it).

Preconception and perspectives

As a researcher it is important to be aware of one’s “preconception” of the phenomenon under study, i.e. one’s previous knowledge, beliefs, hypotheses and one’s theoretical frame of reference. All the phases of the research process may be influenced by the researcher’s preconception. To reduce bias due to personal beliefs, it is important that the researcher is aware of his/her preconception and takes it into account in analysis. This is done by critical reflection concerning the findings that are made, and preferably through discussions between persons who have different preconceptions of the phenomenon under study.

Whereas it is impossible to be completely objective when making interpretations (also true for interpretations of quantitative data), it is however important to differentiate between “biased subjectivity” and “perspectivistic subjectivity”. The latter form means consciously taking on specific perspectives of viewing a phenomenon. This is a legitimate form of subjectivity which can enrich the understanding of the phenomenon under study (Kvale, 1996). Biased

subjectivity – unconsciously being biased by one’s preconception - is however not. It is therefore important that the perspectives from which interpretations are made are made explicit during analysis and in the report.

The first and third authors of paper IV had preconceptions of suicidal behaviour originating from previous suicide research and in the case of the third author also from many years of clinical work as a social worker and psycho-therapist. Being a theologian, the second author had an existential-philosophical frame of reference.

In relation to the whole thesis it can further be noted that my preconception, as in my theoretical starting point and knowledge about suicidal behaviour, is summarised in the introduction of this thesis. The thesis is written primarily from a psycho-social - psychiatric perspective, combined with emphasis on the perspective of suicide attempters.

Ethical approval

All studies received approval by the Research Ethics Committee of the Medical Faculty at the University of Lund.

Results & comments

Paper I: Sex differences in risk factors for suicide after attempted suicide. A follow-up study of 1052 suicide attempters.

After a median follow-up period of 6 years and 5 months 50 patients (4.8 %) had committed suicide, another 13 cases (1.2 %) were labelled “uncertain suicides”, and 79 (7.5 %) had died of natural causes. Four persons had died of unknown causes. Men had higher frequencies of suicide (6.5 % vs. 3.6 % of women; $p < 0.05$) as well as of natural death (10.9 % vs. 5.3 % of women; $p = 0.01$) and uncertain suicide (2.2 % of men vs. 0.6 % of women; $p < 0.05$). Almost four out of ten (38 %) suicides occurred during the first year after the index suicide attempt.

A number of significant risk factors for ascertained suicide were identified by means of univariate survival analyses (Kaplan-Meier): Major depression (vs. all other diagnoses), a SIS score of 19 or more at the index attempt, a violent index attempt, being a repeater, an age of 50 years or more, a previous or current psychiatric contact and male sex (table 3).

Table 3. Risk factors for suicide in univariate survival analyses (Kaplan-Meier), also by sex.

Risk factor	Total sample		Men		Women	
	Log rank	P-level	Log Rank	P-level	Log Rank	P-level
Male sex	5.35	< 0.05	-	-	-	-
Age \geq 50 years	8.36	< 0.01	0.32	0.057; NS	14.10	< 0.001
Repeater status	9.92	< 0.01	8.16	< 0.05	3.43	0.18; NS
Violent index attempt	11.98	< 0.001	9.15	< 0.01	0.47	0.50; NS
Major depression vs. all other diagnoses	20.02	< 0.0001	7.00	< 0.05	14.24	< 0.001
Earlier/current psychiatric contact	8.73	< 0.05	3.52	0.17; NS	8.96	< 0.05
Psych. in-patient treatment after index attempt	5.78	0.056; NS	1.14	0.57; NS	9.61	< 0.01
SIS score \geq 19 points	15.24	< 0.001	4.22	0.12; NS	11.84	< 0.01

Sex differences were found in risk factors. For women, the following factors were associated with suicide risk: advancing age, a high suicidal intent at index, being admitted to psychiatric in-patient treatment following the index attempt, and previous or current psychiatric contact. Being a repeater and making a violent index attempt were risk factors unique to men. Major depression was a significant risk factor for both sexes (table 3).

Age, major depression and SIS score were included in a Cox regression analysis for women separately, whereas system variables (i.e. previous or current psychiatric contact and admission to psychiatric in-patient treatment following the index attempt) were excluded. All three variables that were entered in the analysis proved to be independently significant risk factors (table 4).

For men, a Cox regression was performed including the variables previous suicide attempts, violent index attempt and major depression, which all proved to be statistically significant (table 4).

Table 4. Independent risk factors for suicide in multivariate survival analyses (Enter Cox regressions), also by sex. OR (CI 95 %).

Total sample	Men	Women
Male sex * 1.92 (1.08 - 3.39)	-	-
Age ≥ 50 years * 1.92 (1.05 - 3.50)	-	Age ≥ 50 years ** 3.45 (1.51 - 7.91)
Repeater status ** 2.58 (1.41 - 4.72)	Repeater status ** 3.58 (1.55 - 8.28)	-
Violent index attempt * 2.67 (1.16 - 6.09)	Violent index attempt ** 3.82 (1.50 - 9.73)	-
Major depression * 2.13 (1.15 - 3.93)	Major depression * 2.46 (1.07 - 5.63)	Major depression * 3.01 (1.29 - 7.05)
SIS ≥ 19 points * 1.90 (1.02 - 3.52)	-	SIS ≥ 19 points * 2.82 (1.21 - 6.58)

* p < 0.05, ** p < 0.01. OR = odds ratio. CI = confidence interval.

Comments

As in most other prospective studies of suicide risk after attempted suicide (Holley et al, 1998; Nordentoft et al, 1993; Rygnestad, 1997; Soukas & Lönnqvist, 1991; Soukas et al, 2001) we chose not to include cases of uncertain suicides among the suicides. It may be argued that uncertain suicides might be actual suicides, but some of the characteristics of these patients (more often substance abusers, lower suicidal intent at index, and more often death through over-doses) suggest that these really were uncertain, and to assume that they all were suicides seems a bit hazardous. Nevertheless, the risk of dying through uncertain suicide is important to recognise, especially among substance abusers.

Paper II: Problems of importance for suicide attempts – the patients' views

The two most common problems affirmed as causes of attempted suicide were feelings of loneliness and mental illness/psychiatric symptoms. Various kinds of interpersonal problems were also common. Among men, the most common items were financial problems and recent/current change in life situation. The response frequencies to the various items, also by sex, are shown in table 5.

A factor analysis of the problems resulted in a four factor solution, explaining 59 % of the total variance. These factors were 'psychiatric problems and relation difficulties' ($\alpha = 0.69$; composed of the items feelings of loneliness, mental illness/psychiatric symptoms, addiction, problems in creating or maintaining friendships or social relations, and problems with parents), 'recent/current problems in relationships' ($\alpha = 0.60$; including items rejection by a lover, problems with partner, and recent/current change in life situation), 'social/economical problems' ($\alpha = 0.61$; comprising items unemployment, financial problems and housing problems), and 'problems at workplace/school' ($\alpha = 0.33$; consisting of the items problems concerning work/school and problems in making friends at work/school).

Table 5. Affirmative answers given by suicide attempters to a list of possible problems as causes of attempted suicide. Significant sex differences are shown.

	Total sample		Men (n = 25)		Women (n = 29)	
	Affirmative answers ¹ %	Great importance %	Affirmative answers %	Great importance %	Affirmative answers %	Great importance %
Feelings of loneliness	76	54	56**	36*	93**	69*
Mental illness or psychiatric symptoms	70	37	52**	24	86**	48
Problems in creating or maintaining friendships and social relations	56	26	52	24	59	28
Problems with your partner (N=47)	55	30	50	18	60	40
Problems concerning work/work place/school (N=53)	51	23	60	28	43	18
Rejection by a lover (N=50)	48	28	46	29	50	27
Problems with your parents (N=53)	47	21	40	20	54	21
Recent/current change in life situation	46	28	64*	44*	31*	14*
Problems with your children (N=31)	45	19	20**	0**	69**	38**
Financial problems	44	24	64**	44**	28**	7**
Housing problems (N=53)	28	2	38	4	21	0
Addiction (to alcohol, drugs, medication, gambling etc.)	28	7	24	8	31	7
Problems in making friends at work or at school (N=53)	23	6	12	4	32	7
Unemployment (N=53)	23	11	40**	24**	7**	0**
Physical illness or disability (N=52)	17	10	17	8	18	11
Fear of physical illness or infection (N=53)	10	4	4	0	14	7
Criminality (N=53)	0	0	0	0	0	0

¹ "Affirmative answers" refers to those who answered "some importance" plus those who answered "great importance". When nothing else is given, N = 54. * p < .05, ** p < .01.

Sex differences were found: Men scored higher than women on the factor scale of 'social/economical problems' whereas women scored higher than men on the factor scale of 'psychiatric problems and interpersonal difficulties'. The item 'problems with children' (which was not included in the factor analysis) was also more often affirmed by women than by men (table 5).

Most patients affirmed several problems. The mean number of problems affirmed by each respondent (i.e. the number of problems of 'some importance' plus problems of 'great importance') was 6 ± 3 (range 1-13; all respondents but one affirmed more than 1 problem). The corresponding number for problems of great importance was 3 ± 2 (range 0-9).

A couple of associations between problem sub-scales and psychiatric diagnoses (divided into mood disorders, adjustment disorders and "other" diagnoses) were also found: Patients diagnosed with adjustment disorder scored higher than patients with all other disorders (taken together) on the sub-scale 'recent/current problems in relationships'. Further, patients in the diagnostic subgroup "others" scored higher than those diagnosed with adjustment disorder on the subscale of 'psychiatric problems and interpersonal difficulties'.

There were few significant correlations between problem sub-scales and ratings of suicidal intent, depressive symptoms and social network. The only findings were that the subscale 'psychiatric problems and interpersonal difficulties' was positively correlated to depressive symptoms (MADRS score) and negatively correlated to social network (ISSI score) and suicidal intent (SIS score).

Comments

The α -value of the factor 'problems at workplace/school' was only 0.33, indicating that the items in this factor (problems concerning work/school and problems in making friends at work/school) do not represent one single dimension. This is logical; although the items share the workplace/school dimension, they do not share the interpersonal aspect. It may thus be argued that the items should have been kept as separate variables. When revisiting the data with these items as individual variables, no new findings were made. Further, this factor was only related to age (higher factor scores among 18-26-year olds than among 41-67-year olds). In all, the study thus cannot be said to have been particularly affected by the keeping of this questionable factor.

As the number of analyses was rather large it may be argued that a Bonferroni correction should have been performed to adjust for type I errors. The Bonferroni method is however a rather "harsh" method, and would have increased the risk of missed associations (type II errors). Another method would have been to set the level of significance to $p < 0.01$. This would not have affected the main findings of the study, i.e. which problems were most common and the existence of sex differences in perceived causes of attempted suicide.

Paper III: Motives for suicide attempts – the views of the patients

Escape oriented motives were the most common ones to be affirmed, followed by a wish to die. The motive "I lost control and I do not know why I did it" was also affirmed by many patients. The least common motives were the punishing/manipulating ones. The response frequencies to the various motive items are shown in table 6.

Looking at the motives given as *major* influential ones, again escape motives and a wish to die are the most common ones, affirmed by a majority of respondents. Other motives (including all communicative motives) were much less often given as major ones.

A factor analysis was conducted, resulting in a four-factor solution. These factors together explained 71% of the total variance. The factors were labelled "punishment/manipulation" ($\alpha = 0.89$; comprising items 12-14), "communicating and unclear motives" ($\alpha = 0.74$; consisting of items 5, 6, 8, and 9), "escape" ($\alpha = 0.56$; items 1-3) and "seeking attention" ($\alpha = 0.65$; items 10-11).

No sex differences were found concerning motives. Some associations were however found between different types of motives and various clinical ratings of mental state and severity of intention behind the suicide attempt. In summary, it was found that patients with psychiatric disorders other than mood or adjustment disorders (e.g. substance abuse, anxiety disorder, personality disorder) scored higher on punishing/manipulating and communicating/unclear motives, and affirmed higher total numbers of motives. Suicidal intent was negatively correlated to 'communicating and unclear motives'. Hopelessness was positively associated with the item "I wanted to die" and with 'escape motives', and negatively correlated to 'communicating/unclear motives'. CPRS and MADRS scores were positively associated with the motive "I wanted to make things easier for others".

Table 6. Affirmative answers given by suicide attempters to a list of suggested motives for attempted suicide.

	Minor + major influence (%)	Major influence (%)
1. I wanted to get away from an unacceptable situation	94	89
2. The situation was so unbearable that I could not think of any other alternative	93	85
3. My thoughts were so unbearable; I could not endure them any longer (N=52)	88	67
4. I wanted to die (N=52)	81	69
5. It seemed that I lost control over myself, and I do not know why I did it	67	31
6. I wanted to get help from someone (N=51)	57	33
7. I wanted to make things easier for others (N=52)	56	19
8. I wanted others to know how desperate I felt	42	21
9. I wanted to sleep for a while (N=52)	31	25
10. I wanted to know if someone really cared about me (N=51)	22	8
11. I wanted to show someone how much I loved him/her	15	4
12. I wanted to persuade someone to change his/her mind (N=51)	14	8
13. I wanted others to pay for the way they treated me (N=51)	12	2
14. I wanted to make someone feel guilty (N=51)	12	4

When nothing else is given, N=53.

Comments

Revisiting the data, no statistically significant correlations were found between motive and problem subscales, although a correlation between ‘escape motives’ and ‘psychiatric problems and interpersonal difficulties’ however showed a tendency to significance: $r = 0.26$, $p = 0.056$.

As in paper I, the number of statistical calculations was rather large. If the significance level had been set to $p < 0.01$ the associations between psychiatric diagnosis and motives would have been non-significant, as would the associations between hopelessness and motives. The main findings of the study - that suicide attempters often affirm escape motives and having wanted to die but seldom affirm punishing/manipulating motives, that reported motives do not differ between men and women, and that motives seem related to mental state (CPRS, MADRS) rather than to socio-demographic characteristics - would however not have been affected.

It was not uncommon for the same person to affirm wanting to escape, wanting to die and having lost control and not knowing why it happened. This seems somewhat paradoxical, and to find out more about the relative importance of various motives as perceived by the individual was a partial objective of the interview study presented in paper IV.

Paper IV: Processes preceding attempted suicide and possible preventive factors: Experiences and views of suicide attempters.

The themes and sub-themes arrived at in the analysis are presented in table 7, and the processes preceding the attempt are illustrated in figure 2.

The informants generally described the background of their suicide attempts as complex, with several different factors interacting in vicious circles. Descriptions of physical and mental exhaustion as a contributing factor were recurrent in the text. Uncontrollable mood shifts were often described as especially painful and important background factors of suicidality. *“It’s the shifts that wear my mood and energy out, and it’s been like that now for I don’t know how long”*.

Emotional pain was a common denominator on the route to attempted suicide, and escaping from this pain was the main motive for carrying out the attempt. Other motives (e.g. to die or to get revenge) were of secondary importance. *“It’s not about succeeding to die. That’s not the primary thing. That’s to... somehow... get on... from what you can’t get out of”*.

The overall composition of the processes leading to attempted suicide showed a great deal of inter-individual variation: Background factors differed. The duration of suicidal ideation varied from decades to minutes, and its intensity varied from obsessing about suicide to absence of any conscious suicidal thoughts. Decisions to attempt suicide were in some cases made months prior to action whereas others decided and acted simultaneously. Some informants could point out a trigger factor which made the attempt occur on that particular day, whereas others could not. However, all informants but one described the final decision to go through with attempting suicide as impulsive.

Most informants described having been in an altered state of mind immediately before and during the suicide attempt. In fact, two different states of mind were described: One state was distinguished by confusion and panic/despair, whereas the other state was characterised by a pronounced “tunnel vision” and “turned off” emotions.

Examples of statements describing the first type of experience are:

“It was such a chaos after that. The day went by somehow [...] It had almost been a whole night and day where I sort of wandered about.”

“It was chaotic. [...] I have no idea of what time it was then.”

“I was completely freaked out. All shaky. I couldn’t... It was total chaos. [...] I panicked.”

Those experiencing a state of turned off emotions and tunnel vision described going about things calmly and decisively. One woman had calmly said to herself: *“Now, you will do this, then you will do that, and then like so, and then that will be the end of that”*. She further stated that: *“And I think that even if my husband had walked in on me when I was about to take the pills and said that: ‘No, don’t do it, you can’t do that’, I would simply have said that ‘You can’t tell me what to do or not. It’s my life, and I decide over it.’ ”*

Common to both states was that one neither wanted nor perceived it possible to seek help.

“When I come to the point where I make that decision, seeking help is not an option. I cannot do that on my own. [...] When I feel that bad I do not want the help. [...] In the suicidal phase, right before I make an attempt, no one can help me. Before that and afterwards, on the other hand, I can be helped.”

The informants suggested several factors that might stop them from attempting suicide, comprising three themes: ‘avoiding “unnecessary” causes’ (e.g. isolation due to having stayed at home from work for too long), ‘improvements of professional help’ (e.g. concerning availability, but foremost the possibility to get more help (not least in aftercare) and other kinds of help, such as psychotherapy and help to find work), and finally ‘own abilities’

(learning to deal with one's problems, to think differently, and to seek help before it was perceived as too late).

It was further noted that the informants generally had a good narrative competence: They could explain the background of their suicide attempt – why they had ended up in a state in which suicide seemed like the only solution, and/or where suicidal impulses could not be resisted.

Figure 2. Processes preceding suicide attempts.

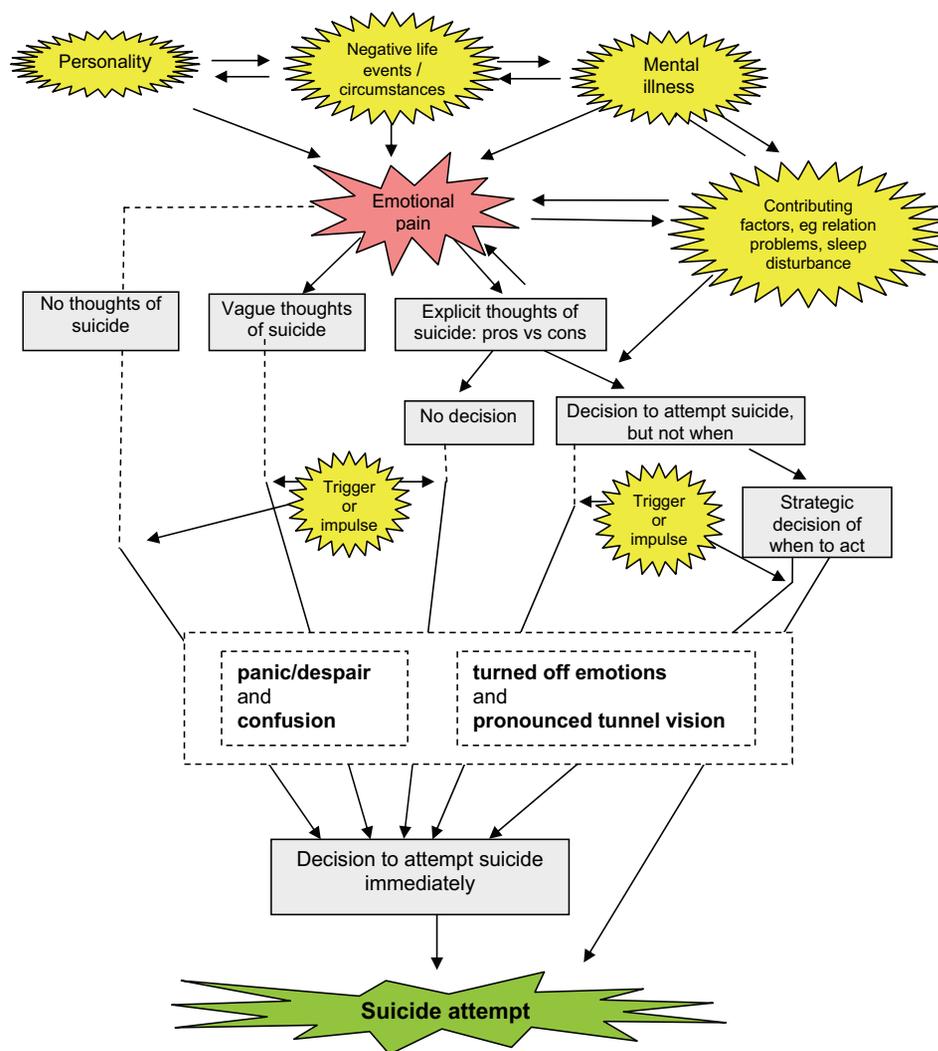


Table 7. Themes and sub-themes identified in the analysis.

Main aspects	Themes	Sub-themes	
1) background factors	recent change of life situation	e.g. a partner taking ill	
	overstrain	e.g. from work, school, parenting	
	disrupted diurnal rhythm	irregular eating, sleeping and activity patterns	
	loneliness/isolation		
	/fear of/ physical illness		
	economical problems		
	interpersonal problems	problems with/in partner relation, 'lack of secure base'	
	personality	perfectionism; wish to please others; vulnerability; suicidality	
	earlier traumatic experiences	e.g. death of a loved one, sexual abuse	
	addiction	to alcohol, deliberate self-harm, or to other destructive behaviours	
2) trigger factors	mental illness	its direct symptoms; awareness of its consequences on personal abilities to perform and to family	
	quarrel with partner		
	alcohol abstinence induced hallucinations		
	feeling rejected (by health care professionals and significant others)		
	experienced set-back in the struggle to "sort one's life out"		
	3) motives	to escape	
		to die	
		to get help	
		to punish and get revenge	
		do not know	
4) suicide ideation	weighing pros against cons		
	obsessing about suicide		
	inarticulate suicide ideation		
	no contemplation		
5) deciding to attempt suicide	two-step decision (to do it + when to do it)		
	one-step decision: it was an impulse		
	justifying the decision	cannot go on for the sake of others; they will manage without me; no other solution; suicide is brave	
6) the suicide attempt situation	impaired cognitive functioning	confusion or tunnel vision	
	altered emotional state	despair/panic or turned off emotions	
7) possible preventive factors	avoiding unnecessary causes		
	improvements of professional help	availability, more/other help	
	own abilities	finding other solutions, seeking help	

Comments

A sort of “tunnel vision” was present also in the state of panic, despair and confusion, in the sense that one could not think of any alternative action than to attempt suicide.

As commented on in relation to paper III, it was difficult to understand how it could be that many respondents affirmed seemingly contradictory items of the motive questionnaire, such as “I wanted to get away from an unacceptable situation”, “I wanted to die” and “I lost control and I do not know why I did it”.

The findings of the interviews suggest that respondents affirming those three motives might have done so because they wanted to get away from an unacceptable and painful situation and considered death as a way of achieving this, and that they further felt that they had not been in control when the suicide attempt was carried out. (The final step from thought to action generally was described as impulsive and uncontrolled, carried out under the influence of an altered state of mind). This loss of control is however not automatically connected to not knowing why it happened, as implied by the questionnaire. On the contrary, the informants could very well describe why they felt so bad that they attempted suicide, and what they wanted to achieve by the act. It actually seems that the statement “I lost control, *but I do know why I did it*” in many cases would be true. As losing control and not knowing why something has happened differ in logical content they probably ought to be represented by two different items on a rating scale.

Discussion

Methodological considerations

Patient samples

Paper I

This sample is constituted by non-consecutive suicide attempters from a medical emergency in-patient unit. It is possible that suicide attempters who were admitted during weekends and holidays differed from those admitted during weekdays (who were the only ones included in this sample, apart from during the two-year-period of consecutive inclusion). When the sub-sample of consecutive first-time evaluations was compared to the rest of the sample, no statistically significant differences in suicide frequencies or overall mortality were found. It can however not be told for certain that the results of this study can be generalised to all suicide attempters who are admitted to a general hospital due to attempted suicide.

Paper II and III

The patients in these studies constitute 41 % and 42 %, respectively, of all suicide attempters who participated in suicide prevention research at the specialised psychiatric ward between the years 1992 and 1999 (N=128). Our sample was found to be representative of these 128 patients concerning distribution of psychiatric diagnoses, age, gender, number of previous suicide attempts and scores on the clinical rating scales used in papers II and III.

As for the representativeness of the research patients in relation to all in-patient admitted suicide attempters, it seems likely that the research patients represent a group of intermediately severe psychopathology and suicidality: The most severe cases probably were among those who could not wait for treatment or were under compulsory psychiatric treatment, and the least severe cases probably were among those who only stayed for a few days at the ward.

It must further be remembered that those who are admitted to psychiatric in-patient treatment after attempted suicide generally are more suicidal and in need of psychiatric treatment, as compared with the entire group of suicide attempters: It has been found that 13 % of suicide attempters admitted to a psychiatric ward committed suicide within 5 years (Johnsson-Fridell et al, 1996). In paper I, comprising as well in-patient admitted as out-patient referred suicide attempters the suicide frequency was 4.8 % after a median follow-up period of 6 years and 5 months.

It thus seems likely that the patients in papers II-III represent a group of suicide attempters who were more suicidal and psychiatrically ill than suicide attempters in general, and who were intermediately suicidal and psychiatrically ill compared to suicide attempters admitted to psychiatric in-patient treatment.

A sample size of 53-54 patients is rather small. As a consequence the sample could not always be divided into as many subgroups as would have been optimal, since that would create too small groups for statistical calculations. For instance, psychiatric diagnoses had to be forced into three categories, creating the rather heterogeneous group of "others" (substance abuse, axis II disorder only, anxiety disorders, eating disorders etc.). Therefore some associations between diagnosis and problems or motives may have been missed.

Paper IV

This sample consists of ten non-consecutive suicide attempters admitted to psychiatric in-patient treatment during the period January – May 2004. Because interviews were chosen as method, patients with the most severe psychiatric symptoms and/or dementia were

automatically excluded. The experiences of these patients, and of those who refused to participate, may differ from the participants' experiences. Further, the experiences of immigrants who could not speak Swedish may differ from the experiences of Swedish-speaking individuals. For practical reasons (the limited time for interviewing, and the relatively small number of in-patient admissions of suicide attempters during that period) no purposive sampling strategy could be employed. It would have been optimal to use a maximum variation strategy based on e.g. suicidal intent, occurrence of previous attempts, method used for the current attempt, psychiatric diagnosis, age and sex. As it were, the sample did provide variation according to these parameters. There could however have been more variation in psychiatric diagnoses (mostly depressive syndromes), and age (20 – 61 years). Also, all informants but one had made previous suicide attempts and had been in contact with psychiatric services for several years. It may thus be that the variation in experiences preceding attempted suicide and views on possible preventive factors is even greater than pictured in this paper. However, since the main patterns described in paper IV were evident and recurrent in the interview material, they may be valid for many persons admitted to psychiatric in-patient treatment after a suicide attempt.

Patient reports and social desirability

In papers II – IV patient reports of suicidality were investigated, according to the assumption that these reports reflect the views of these persons. But can patient reports be trusted? Is it possible that participants due to social desirability did not affirm for example punishing/manipulating motives or problems such as criminality? The patients filled out the forms anonymously, but as a social worker was nearby during the rating and collected the form afterwards, patients may have felt that it was not entirely anonymous. A somewhat falsely low frequency of certain motives and problems thus cannot be ruled out. In relation to the matter of social desirability and causes given by suicide attempters it may however be of interest to note the following: It is well known that it is more socially acceptable to engage in suicidal behaviour in response to serious physical illness than due to other causes (e.g. Ellis & Hirsch, 1995; Hammond & Deluty, 1992, Range & Martin, 1990). Still, de Leo and colleagues (1999) in a questionnaire study similar to ours found that a minority of those with physical illness gave this as a cause of attempted suicide. Instead they affirmed psychiatric symptoms. This might contradict an influence of social desirability in such situations.

As an interviewer (paper IV) I was not under the impression that the informants tried to “make themselves look better”, but rather that they tried to be honest. Indeed several persons did express one or more “socially incorrect” views such as considering suicide to be brave, still wanting to die, not having cared about the feelings of their significant others when they attempted suicide, and also expressed negative views concerning medical doctors and psychiatry (even though they knew that I was a medical student). A couple of informants, although they did not mind talking to me or had anything against taking part of the study, even questioned the value of the study by expressing that they doubted that a non-suicidal person ever could understand a suicidal person “no matter how many people they interview”. Further, as it was explained to the informants that I and my two research colleagues had nothing to do with their treatment or care, they probably could feel quite free to speak their minds.

In all it seems unlikely that the results concerning the views of suicide attempters' would be invalid due to participants' social desirability.

Main findings

Sex differences were found among suicide attempters regarding risk factors for suicide and concerning perceived causes of suicide attempts.

All risk factors identified among clinical and socio-demographic features assessed at the time of a suicide attempt, except for major depression, differed between the sexes: Older age and high suicidal intent score were female risk factors, whereas previous attempts and the use of violent methods were male risk factors. Neither repeater status, nor violent methods, nor high suicidal intent have previously been shown to be sex-specific suicide risk factors.

Concerning causes for attempted suicide, men attributed more importance to economical problems and unemployment, whereas women more often affirmed loneliness, psychiatric symptoms and interpersonal problems. One previous study has found that men more often than women mentioned financial problems (Söderberg et al, 2004). No sex differences were found among motives, which is in line with previous reports (Hjelmeland et al, 2002 a).

Most of the suicide attempters affirmed several contributing causes, which is in line with previous findings (Michel et al, 1994; Schnyder, 1999; Söderberg, 2004). In the interviews it was further found that the background factors often were described to interact in vicious circles leading to emotional pain. The experience of exhaustion was a recurrently mentioned contributing factor, but this has not been given much attention in models of suicidality. Through questionnaires we replicated the findings that escape motives are common, whereas punitive/manipulative motives are uncommon, and that suicide attempters generally affirm several motives (Bancroft et al, 1976; Williams, 1986; Michel et al, 1994; Tulloch et al, 1994; Boergers et al, 1998; Schnyder et al, 1999; Söderberg et al, 2004). Interviews further indicated that escape from emotional pain is the most fundamental motive perceived for attempted suicide, which supports Shneidman's theory of suicide as escape from "psycheache" (1993; 1998).

In the interviews, the development of suicidality prior to the attempts was explored, and it was found that descriptions of pathways to attempted suicide showed a great deal of inter-individual variation. This supports the hypothesis that there is more than one pathway to attempted suicide (e.g. Dieserud et al, 2001).

Two types of acute suicidal states of mind affecting as well cognitive functioning as emotions were identified: one distinguished by confusion, panic, and despair, and another characterised by "tunnel vision" and "turned off" emotions. Both types of experiences have previously been described, but separately in different studies (Michel & Valach, 2001; Orbach et al, 1993). It was described that, in this situation one neither wanted nor could seek help.

The final decision and step from thought to suicidal action was in most cases described as impulsive, which is in line with previous studies that have shown an association between impulsivity and suicidality (e.g. Mann et al, 1999; Dougherty et al, 2004).

The patients' views on what might prevent attempted suicide concerned as well changes of professional help as of themselves and their own abilities. To get help with the issues they perceived as the most important ones, and becoming better at dealing with their problems and learning to seek help was given much emphasis. Very little has previously been reported about suicide attempters' views on what might prevent suicide attempts.

Sex differences and gender aspects

The explanations to why risk factors differed between men and women may be several, and will here be reflected upon:

That age was a risk factor for women but not for men reflects two things. To begin with it reflects a low suicide risk of younger women (of whom 2.3 % committed suicide during follow-up) compared to older women (of whom 9.6 % committed suicide). It seems that among young female suicide attempters coming to medical emergency units there is a high proportion of individuals whose suicidal behaviour is not associated with a high suicide risk. As mentioned in the introduction, attitudes in the general population are more sympathetic toward young female suicide attempters. It may be that a lack of social disapproval of self-harm behaviours in young women contributes to the high incidence of such acts. The increasing suicide attempt rates of young women (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005) are however worrying even though they do not seem to be associated with high risk of completed suicide.

Secondly, the sex-specificity of older age as a risk factor for suicide reflects a high suicide risk of young men (of whom 7.3 % died through suicide, compared to 8.8 % of men aged 50 years or older), which in light of the increasing suicide rates in recent years (National Centre for Suicide Research and Prevention of Mental Ill-Health, 2005), seems to need more attention and efforts to be lowered.

That age was found to be a risk factor for female suicide attempters supports the findings of two previous studies (Holley et al, 1998; Nordström et al, 1995), but contradicts the findings of Rygnestad (1997) and Soukas and Lönnqvist (1991) that age is risk factor for male suicide attempters only. In summary, the role of age as a sex-specific risk factor is unclear.

The occurrence of previous suicide attempts was a risk factor for men but not for women. It is possible that repeated suicide attempts among the women more often represented a habitual pattern of deliberate self-harm rather than actual attempts to end life, which would explain why repeater status was not a risk factor for women. It is also possible that the female suicide attempters received more adequate help following the suicide attempt compared to the male attempters, and that this contributed to a lower suicide risk. The inclination of men to use violent methods may partially account for the high suicide risk associated with repetitive suicidal behaviour, although repeater status was associated with suicide risk independently of having used a violent method.

As few women used violent methods it is possible that numbers were too small to detect a significant association between suicide risk and violent methods among women. A violent suicide attempt carried out by a woman should probably be taken seriously, but as the use of violent methods is so uncommon among women, this sign of suicide risk will seldom be encountered in the clinical situation. Instead, the SIS can be used to assess the degree of seriousness, and the suicide risk, for women. Why a high SIS score was not a significant risk factor for men is difficult to tell.

We found that male and female suicide attempters to some extent focused on different types of underlying problems. There is thus some agreement between the beliefs of the general population, that women become suicidal because of relationship problems whereas men become suicidal in response to social and economic crises (Dahlen & Canetto, 2002), and the views of suicide attempters.

Why did the female suicide attempters seem to be more concerned about psychiatric/mental problems than the male ones did? It is possible that the men less often reported causes concerning their mental health and relations, and instead affirmed causes represented by outer circumstances and events, because it was more difficult for the men to recognise and to talk

about their feelings. Or, it is simply that economical difficulties are experienced as more burdensome by men, as a reflection of traditional gender roles.

Such traditional gender roles may very well still be relevant in the 21st century. Or could it be that suicide attempters are more “gender stereotypic” than the general population? It has been found that “androgynous” persons, i.e. those who possess high numbers of as well positive characteristics that are typically “male” (e.g. independence and confidence) as typically “female” (e.g. kindness and understanding), use a wider range of defence mechanisms than those who are “gender typed”, i.e. possess mostly female or mostly male characteristics (Brems, 1990; Lobel & Winch, 1986). When Dahlen and Canetto (2002) compared attitudes toward non-fatal suicidal acts between different gender types, they found that the “androgynous” persons had more negative attitudes toward suicidal acts. The authors suggested that “androgynous” individuals may possess a wider repertoire of strategies to handle difficulties themselves, and therefore sympathise less with decisions to attempt suicide in the face of difficulties. We have not compared our samples to non-suicidal controls, and can therefore not tell whether or not they were more gender-stereotypic than non-suicidal persons. It might however be interesting to test such a hypothesis in future studies.

Risk of suicidal acts

Almost forty percent of the suicides occurred during the first year after the index suicide attempt. Many other studies have reported similar findings (Nordström et al, 1995; Johnsson-Fridell et al, 1996; Rynestad, 1988; Tejedor et al, 1999; Hawton, Fagg, 1988). This is an observation of clinical importance, since it indicates that follow-up and treatment during the first year after a suicide attempt need special attention.

As mentioned earlier, it is important to establish whether risk factors are interrelated or independent, as they in the latter case may be added together to increase the predictive value. The rather large sample in paper I allowed us to determine independent risk factors through multivariate analyses. From this we learned that ‘major depressed’ men with a history of attempted suicide who make violent suicide attempts, as well as older, ‘major depressed’ women who make suicide attempts of severe suicidal intent (according to the SIS) seem to be under considerable risk of future suicide. However, the clinical usefulness of these statistical risk factors must not be exaggerated: it cannot be said that a suicide attempter matching either of these two descriptions will commit suicide. As a clinician, several circumstances must be weighed together, and knowledge of general risk profiles as the ones detected in our study can contribute with some pieces of the puzzle.

Besides the generally low predictive values of statistical suicide risk factors, another issue which must be considered is that risk factors may change over time. For instance, important life-events may occur during follow-up and affect suicide risk. This kind of information was not available and thus could not be taken into account in the calculations.

Suicide attempters’ descriptions of their experiences preceding attempted suicide (paper IV) could be regarded as a way of retrospectively exploring short-term and immediate risk factors for *attempted* suicide. Viewed as such, the descriptions (including experiences of panic, anxiety, cognitive impairment and exhaustion) show interesting similarities to some of the short-term risk factors for suicide found among depressed patients by Fawcett and co-workers (1990); panic attacks, severe psychic anxiety, diminished concentration, and global insomnia. The samples and outcome events are not the same in this parallel (suicide attempters vs. depressed patients, attempted suicide vs. suicide), which might suggest that these phenomena represent some more general mechanisms facilitating suicidal acts in a short time perspective.

Another finding which may be of clinical importance was the great individual differences in the processes preceding attempted suicide as described by suicide attempters. This finding underlines that viewing the suicidal process as a stepwise progression from thoughts of death, to thoughts of suicide, to suicidal planning and finally to a suicidal act represents an oversimplification. Such a progression represents one, but not the only, possible process. As a way of gently approaching the subject of suicidality when talking to a patient it is good model, but it must be remembered that a patient may attempt suicide without having made any plans.

Further, the descriptions of the acute suicidal states of mind may be of clinical relevance in the context of assessing risk of suicidal acts: As individuals who are about to attempt suicide may think in rigid patterns and not wish to be helped at that time they may be unable or unwilling to share their intentions. Because of their potentially high clinical relevance the acute suicidal states of mind will here be discussed in some further detail.

The acute suicidal states of mind

It has previously been suggested, in psychological models of suicidal behaviour, that an acute suicidal state of mind affecting cognitive functioning and emotional state is relevant in understanding why suicidal acts take place. Findings of the interview study support this suggestion, and thus validate the theoretical models “the presuicidal syndrome” (Ringel, 1976) and “the suicidal mode” (Rudd, 2000). Our findings are further supported by a recent interview study in which the majority of suicide attempters described a state of mind prior to and during the suicidal action, which was characterized by an altered state of consciousness, automatism and, often, analgesia (Michel & Valach, 2001).

In our interview study the informants described impaired cognitive functioning and an altered emotional state. It is possible that the concomitant experience of being out of reach from help was a consequence of this altered state of mind.

The difference between the two states described in paper IV might be understood as a difference in regard to sense of control: Some seemed to experience a total loss of control (confusion together with feelings of panic/despair), whereas others seemed to experience some sense of regained control (tunnel vision and turned off emotions), by taking the matter into own hands (*“It’s my life and I decide over it”*). The pronounced tunnel vision which made it impossible to think of alternative actions however opposed that the latter persons actually were in control in that situation.

Experiences of loss of control in the acute suicidal situation were also reported by Michel and Valach (2001). Maltzberger (2004), in his psycho-dynamically influenced description of the suicidal process, included “loss of control and disintegration” as one of the final steps of “the descent into suicide”. He also suggested that suicidality in some cases may represent a means to get out of a situation of passive helplessness and restore the sense of control by turning passivity into activity.

From a psycho-biological perspective, a possible explanation of the experiences described of the immediate suicide attempt situation is that they reflect stress reactions. It is well known that persons under severe stress have a reduced ability of thinking in complex, varied ways as well as in long term perspectives (Ekman & Arnetz, 2002). Severe stress can evoke stereotypical reactions; some individuals panic whereas others become paralysed or emotionally numb, which is in line with the emotional aspects of the acute suicidal states described in paper IV. Depression, which also reduces cognitive functioning and in many cases is associated with increased levels of stress hormones (Goodwin, 2000) may also contribute to these states.

From a psychological perspective it could be suggested that the experiences of the acute suicidal situation reflect a propensity to react stereotypically in stressful situations. This feature could be of great importance to suicidality and even suicide risk: Fribergh and colleagues (1992), by use of the so-called meta-contrast technique, found that suicide attempters who showed low flexibility of defence mechanisms when exposed to threatening images were in higher risk for future suicide.

Further reflections on the perspectives on suicidality in clinical psychiatry

There definitely seems to be a good rationale for understanding suicidality from a psychiatric perspective. As mentioned in the introduction, the vast majority of suicide attempters as well as of suicide completers fill the criteria of one or more psychiatric disorders at the time of the suicidal act. Some findings of the present thesis can also be considered to support the value of understanding suicidality as a consequence of psychopathology: Major depression (compared to all other diagnoses) was the only variable which was an independent suicide risk factor for both male and female suicide attempters. Further, a majority of suicide attempters considered mental illness/psychiatric symptoms to be a cause of attempted suicide. The latter finding could be seen as a validation from the patient perspective that the psychiatric approach of understanding suicidality is a relevant one.

However, the psychiatric perspective on suicidality as a symptom of psychopathology has been criticised for taking on an outside perspective with elements of determinism and some remains of tabooing (Beskow et al, 2005). In light of this criticism, and having explored suicidality from the perspective of suicide attempters, possible limitations of the psychiatric perspective will be discussed along with the possible value of taking on additional perspectives:

In the interviews it was found that some informants singled out one factor, typically a psychiatric disorder, as the very root of suicidality: *"It's the disease that makes it happen"* and described other factors (e.g. problems in a partner relationship) as contributors. Other informants did not single any factor out as being more important than the rest. It was noted that the informant who had not previously attempted suicide and who had been in contact with psychiatric services for the shortest period of time did not use the term "mental illness" and pointed at several, equally important background factors. This might reflect a lesser influence of explanatory models provided by psychiatry. Such influence may instead promote views such as "it is the disease that makes it happen", in accordance with a psychiatric / psychopathological perspective on suicidality. The benefits of the latter view could be alleviation of feelings of guilt, but a possible drawback is that it might promote feelings of helplessness and powerlessness. Further studies are needed to conclude whether such mechanisms exist and are clinically relevant.

Suicidality as viewed from the perspective of suicide attempters thus often concerned aspects which easily could be interpreted as signs or symptoms of psychiatric disorders. However, certain dimensions were more emphasised than others. As already pointed out, the importance of feeling out of energy was a dimension which was given much emphasis by the informants in the interview study. This was not included among problems on the questionnaire (paper II), and has not been given much attention in models of suicidal behaviour. The reason that this experience has not been emphasised as important *per se* might be that sleep disturbances and exhaustion through a psychiatric perspective are viewed as signs of depression. Our results

suggest that the experience of exhaustion, whether it represents a symptom of depression or not, deserves more attention in relation to suicidal acts. A recent study which supports this suggestion found that 90 % of suicide attempters (N = 166) reported some form of sleep disturbance, and further reported a correlation between suicidal behaviour and insomnia, also for patients without major depression (Sjöström et al, 2005). Impulsivity, anxiety and uncontrollable mood shifts were other psychological/psychiatric dimensions which seemed to be of particular importance in relation to attempted suicide, according to the patients. In light of these findings it is interesting to note that the Suicide Assessment Scale (SUAS; Stanley et al, 1986) includes the aspects of “anergia”, “impulsivity”, “anxiety”, and “perceived loss of control” as items, and that high SUAS scores were related to suicide risk (Niméus et al, 2000). Our results may be seen as a validation from a patient perspective that this scale covers several highly relevant dimensions of suicidality.

The suicide attempters also mentioned several non-psychiatric background factors of attempted suicide, such as social isolation and economical problems. As the suicide attempters' views were investigated closely after the suicide attempts it is possible that they were influenced by a current mental state such as depression, with the consequence that they exaggerated the magnitude of for instance economical problems. Then again, it may be that the non-psychiatric problems persist even after the depression is treated. Informants of the interview study described that non-psychiatric problems contributed in worsening the psychiatric problems, which in turn worsened the non-psychiatric problems (vicious circles). It seems important that clinicians are open to the possibility that problems perceived as important by suicide attempters may not only be due to temporary, depressively distorted perceptions, and that patients' views on problems are reassessed once depression or other psychopathological processes have been initially treated. Using rating forms on several occasions might be one way to facilitate such assessments in clinical practice. As mentioned concerning possible preventive factors of attempted suicide, patients emphasised the need to get help with the issues they perceived as the most important ones, which in general were as well psychiatric as non-psychiatric issues. It can be noted that several of those treatments which have succeeded in reducing the rates of repeated suicide attempts, for instance dialectical behavioural therapy and other forms of cognitive-behavioural therapy (Arensman & Hawton, 2004; Brown et al, 2005), include putting focus onto the problems that are perceived as most important by the patients. These therapies also focus on problem solving ability, which was another issue addressed by the informants in our interview study as something which might prevent suicide attempts.

In paper II it was found that mental illness/psychiatric symptoms, loneliness, and problems in creating/maintaining relationships often were experienced as background factors by the same suicide attempters. These three items were also found to load into the same factor in a factor analysis of a similar problem rating scale (Hjelmeland, 2002 b). There could be causal relationships between these different problems. Alternatively, “loneliness”, “problems in creating/maintaining relationships” and “psychiatric symptoms” are different ways of describing the same phenomenon, representing psycho-social and psychiatric perspectives, respectively. The implications are however quite different: if the problem is identified as loneliness, the solution will focus on relations, whereas if the problem is identified as e.g. depression, focus will be on treating the patient's psychopathology. By taking both perspectives into consideration, more possible solutions are generated.

The sex differences of risk factors and perceived causes suggest that gender identity and/or biological sex influences suicidal behaviour. This might be seen as an incitement to view

suicidality from a "normal perspective" in addition to viewing it from a psychopathological perspective: People who engage in suicidal behaviour are not only influenced by psychopathological processes, but also by other factors such as being a man or being a woman.

A potential value of taking on a "behavioural" perspective and view suicidal behaviour as a distinct phenomenon was indicated by the fact that several risk factors concerned suicidal behaviour – repeater status, use of a violent method and a serious suicide attempt as measured by the SIS (which concerns preparations and precautions taken against discovery, but also the motivational aspect).

In summary, it seems valuable to combine different perspectives on suicidality in order help suicidal individuals in an optimal way, and the perspective of the suicidal individual may be one of the most important perspectives to take on.

It has been suggested that this can be done by using a "narrative approach", of which the goal is that the patient and the doctor/therapist reach a shared understanding of the patient's suicidality. The patient is seen as the expert of his/her personal experiences, and is encouraged to tell his/her story in his/her own words. The role of the doctor/therapist is to understand the patient's perspective. The potential value of using this approach is that it may be effective in establishing a trusting therapeutic alliance, which in turn is known to be of importance for positive treatment outcome (Michel & Valach, 2001). It is however important to note that the narrative approach is suggested to be *complementary* to diagnosing and treating psychiatric disorders - a process in which the doctor is the expert.

Besides to form a therapeutic alliance, taking part of the patients' experiences may give valuable hints for recognition of an acute suicidal state of mind and other dimensions of possible value to risk assessment, as well as hints for issues to focus on in treatment.

Listening to the stories of patients however may require time, which can be a problem in clinical practice. A couple of informants told that they found it difficult to make a quick explanation of what had happened and why they had attempted suicide.

However, given time they suicide attempters generally could describe the background to why they felt so bad that they had attempted suicide. That the patients had a so-called "good narrative competence", is in line with the findings of Michel and Valach (2001) and may be seen as a final indication of that it is worthwhile listening to the views of the patients.

Conclusions

- There are sex differences among suicide attempters concerning risk factors for completed suicide and perceived causes of attempted suicide.
- Major depression constitutes a risk factor for suicide among both male and female suicide attempters.
- In the assessment of suicide risk it may be valuable to keep in mind that suicide attempts of high suicidal intent (rated by the SIS) among depressed older females, and violent suicide attempts among depressed males who have made previous attempts, indicate high risk of future suicide. The clinical usefulness of statistical risk factors must however not be exaggerated. Risk profiles have to be combined with many other parameters in clinical suicide risk assessment.
- Suicide attempters perceive the background of attempted suicide as complex, with several contributing factors.
- The main motivation for suicide attempts among patients admitted to psychiatric treatment due to attempted suicide seems to be to escape from emotional pain. Punishing/manipulating motives are seldom reported.
- In the immediate suicide attempt situation most persons experience an altered state of mind affecting both cognitive functioning and emotional state. It seems that the state may be characterised either by confusion, panic and despair or by “tunnel vision” and “turned off” emotions. In this situation it is perceived impossible to seek help.
- Factors which might prevent suicide attempts, in the view of individuals who recently have attempted suicide, comprise improvements of the professional help offered, as well as improvements of their own capabilities to deal with problems and seek help before it is perceived as too late.
- In order to best understand and help suicide attempters it is probably important that as well researchers as clinicians take on different perspectives on suicidality. Understanding suicidality from the perspective of the suicidal individual shows many signs of being a particularly fruitful point of departure for prevention of suicidal behaviour.

Implications for further research

More studies are needed concerning the role of sex and gender in suicidality.

Further research to get more detailed descriptions of acute suicidal situations as experienced by patients might be helpful. In such studies interviews could be combined with detailed psychiatric diagnostics and assessments of for example locus of control, hopelessness, impulsivity, defence mechanisms and suicidal intent, to investigate associations between these parameters and patients' experiences. Biological investigations could also be conducted to reveal whether there are any distinct biological mediators/markers of such states, for instance cortisol releasing hormone or other biological markers of stress. Perhaps modern techniques such as PET or SPECT also could be used.

Clinical trials are needed to find out whether psychological strategies enabling patients to break acute suicidal states of mind could be developed. Strategies might for example be based

on methods for stress coping, as the acute suicidal states of minds described by the patients showed similarities with symptoms of severe stress.

Being caught in vicious circles, being subject to uncontrollable mood shifts, not being able to think logically, and attempting suicide based on an impulsive decision were some of the features descriptive of the backgrounds of attempted suicide. These experiences all seem to share the common denominator of not being in control. In a forthcoming article a further analysis of the interviews will highlight and discuss the aspect of not being in control in relation to attempted suicide.

In closing

Having taken part of the experiences and views of suicide attempters I wondered if Vincent van Gogh when he painted “Starry Night” (front cover) symbolised an inner turmoil of despair through the swirling clouds of the dark sky. I wondered whether the distance between the peacefully-looking little village and the observer represented a sense of isolation and loneliness, combined with longing for peace, security and belonging. I wondered whether perhaps the massive dark structure to the left of the painting symbolised a sense of anxiety, or some other dark and sharp-edged emotion.

But then again – it may just be a bush or a tree. I do not know, because I cannot ask the painter himself what the meaning of the picture was to him.

Had Vincent van Gogh lived today, perhaps his suicide could have been prevented, or perhaps not. With efforts of good clinical psychiatric practise, guided by research from as well humanistic, psychological, social and biological disciplines, combined with other suicide-preventive measures in society, the Vincent van Goghs of the future will probably have better chances of surviving to receive credit for their work - and to continue painting with a restored joy of living.

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Populärvetenskaplig sammanfattning

(Summary in Swedish)

I Sverige inträffar varje år ca 1 500 självmord och minst 15 000 självmordsförsök. Självmordsbeteende är således ett problem som berör många människor i vårt samhälle. En grupp som löper en klart förhöjd risk att begå självmord är de personer som gjort självmordsförsök. "Självmordsförsökare" utgör dock en heterogen grupp av människor av olika ålder, kön, sociala omständigheter och psykiatriska tillstånd.

Trots all forskning om suicidalitet som på senare år utförts finns det fortfarande luckor i förståelsen av varför människor gör suicidförsök och hur dessa personer bäst bör hjälpas för att förhindra nya försök och fullbordade självmord.

Det övergripande syftet med avhandlingen är att med utgångspunkt från personer som gjort självmordsförsök uppnå en ökad förståelse av suicidalt beteende. Avhandlingen belyser särskilt riskfaktorer för framtida självmord, könsskillnader och självmordsförsökarens erfarenheter och uppfattningar om sin suicidalitet.

Arbete I:

I det första arbetet följdes 1052 personer som gjort självmordsförsök för att ta reda på om det bland dessa fanns subgrupper med speciellt hög risk för självmord. Eftersom tidigare forskning pekat på att män och kvinnor skiljer sig åt till viss del när det gäller självmordsbeteende undersökte vi även riskfaktorer separat för män och kvinnor, för att se om de skilde sig åt.

För gruppen som helhet fann vi ett antal faktorer som oberoende av varandra var förenade med suicidrisk: att vara man, att vara 50 år el äldre, att ha gjort tidigare självmordsförsök, att ha använt en våldsamt metod för det aktuella försöket (exv. försökt hänga sig), att ha diagnosen egentlig depression, samt hög poäng på Suicidal Intent Scale (SIS; en skattning av hur allvarlig avsikten att dö var) vid självmordsförsöket.

När riskfaktorer för suicid beräknades separat för män och kvinnor fann vi att egentlig depression var den enda riskfaktorn som var gemensam för båda könen. För män var därtill tidigare suicidförsök och våldsamt försöksmetod riskfaktorer, medan högre ålder och hög suicidavsikt var riskfaktorer för kvinnor. Att egentlig depression var den enda riskfaktorn gemensam för män och kvinnor pekar på betydelsen av effektiv depressionsbehandling för att förebygga självmord. Det kliniska värdet av riskfaktorer har dock ett begränsat värde när det gäller att förutspå och förstå självmord i det enskilda fallet; även om en suicidförsökare är man, deprimerad, har gjort tidigare försök och använt en våldsamt metod eller är kvinna, äldre, deprimerad och har hög poäng på suicidavsiktsskalan SIS betyder det inte att han eller hon med säkerhet kommer att ta livet av sig. Det kan finnas individuella omständigheter som avgör utfallet.

För att uppnå en fördjupad och mer nyanserad kunskap om vad som ligger bakom suicidala handlingar på individnivå behöver andra forskningsansatser tas. En viktig väg kan vara att utforska hur patienter som gjort suicidförsök själva resonerar - något som i mycket liten utsträckning har utforskats hittills. I denna avhandling har suicidförsökarens uppfattningar om bakgrunden till suicidförsök undersökts med både kvantitativa metoder (enkäter) och kvalitativa metoder (semistrukturerade intervjuer).

Arbete II:

Då 54 patienter inlagda på psykiatrisk avdelning till följd av suicidförsök fyllde i självskattningsformulär bestående av 17 föreslagna orsaker (bakomliggande/bidragande problem) till suicidförsök fann vi att dessa skilde sig åt mellan män och kvinnor.

Sammanfattningsvis tillmätte män större betydelse till problem av en mer praktisk natur (ekonomi, arbetslöshet), medan kvinnor lade större tonvikt vid känslomässiga problem och relationssvårigheter (ffa gällande problem med ens barn). Detta verkar avspegla traditionella könsroller. De flesta patienterna bejakade flera problem, i genomsnitt 6 st, varierande från 1 - 13 st.

Arbete III:

I det tredje arbetet besvarade 53 av patienterna i föregående arbete formulär med 14 föreslagna motiv för suicidförsöket. "Motiv" syftar här på vad man ville uppnå med försöket. Den vanligaste avsikten var att ta sig ut ur en outhärdlig/oacceptabel situation eller bort från outhärdliga tankar, vilket bejakades av c:a 90 %. Vanligast därefter var motivet "Jag ville dö" (bejakat av 81 %). En majoritet (67 %) bejakade också att de hade "tappat kontrollen och inte vet varför de gjorde det". Straffande / manipulativa motiv (som att vilja få någon att känna sig skyldig) var de minst vanliga, och bejakades av 12-14 %.

Liksom för bakomliggande problem bejakade patienterna flera motiv; i medeltal 7 st, varierande från 2 - 14 st. Några könsskillnader fanns dock inte.

På det hela taget stämde våra fynd väl överens vad andra liknande studier funnit.

Standardiserade frågeformulär med färdiga svarsalternativ har fördelen att de kan hjälpa patienter att formulera alternativ, som de annars kanske inte skulle ha kommit att tänka på. En nackdel med sådana frågeformulär är dock att man inte kan veta hur personerna som fyllde i dem tolkade dem, och att de endast kan ge svar som på förhand föreslagits. För att uppnå en fördjupad och mer nyanserad förståelse av patienters uppfattningar om och erfarenheter av självmordsförsök gjordes en intervjustudie.

Arbete IV:

I denna intervjustudie var således en frågeställning: Hur beskriver personer som gjort suicidförsök processen som ledde fram till suicidförsöket? (Bakgrundsfaktorer, motiv, utlösande faktorer, självmordstankar, beslut, upplevandet av själva handlingen.) En annan frågeställning var hur dessa personer resonerade kring möjliga hindrande faktorer.

Tio patienter inlagda på allmänpsykiatrisk avdelning efter ett suicidförsök (5 män, 5 kvinnor, ålder 20 – 61 år) intervjuades vid ett tillfälle vardera. Patienterna hade olika psykiatriska diagnoser (ffa depressiva tillstånd, men även personlighetsstörning, alkoholism). De flesta hade gjort tidigare suicidförsök.

Liksom i enkätstudien nämndes flera bidragande orsaker till suicidförsöket. Då patienterna med egna ord fick beskriva bakgrunden framkom det dessutom att man i regel uppfattade att bakgrundsfaktorerna påverkade varandra och bildade onda cirklar. Att vara slutkörd psykiskt och fysiskt var en central upplevelse tiden före suicidförsöket.

Känslomässigt lidande var en gemensam nämnare på vägen mot suicidförsök, och att ta sig bort från detta lidande var det primära motivet för att göra suicidförsöket. Andra motiv såsom att vilja dö, eller hämnas beskrevs också, men som av sekundär betydelse.

De processer som beskrevs ha lett till ett självmordsförsök skilde sig en hel del från person till person, vilket pekar på att det finns mer än en process som kan leda till suicidförsök.

I regel beskrevs det slutgiltiga beslutet och steget från tanke till handling som impulsivt. Dessa beskrivningar stödjer tidigare forskning som funnit att impulsivitet är kopplat till suicidala handlingar.

En återkommande beskrivning av situationen precis före och under suicidförsöket var att man hade befunnit sig i ett speciellt tillstånd. Detta tillstånd karakteriserades av nedsatt kognitiv förmåga och ett förändrat känsloläge. För vissa karakteriserades tillståndet av förvirring, panik och desperation, medan andra beskrev ett tillstånd som dominerades av ett uttalat tunnelseende (oförmåga att se några andra handlingsalternativ) och avstängda känslor.

En gemensam upplevelse just före suicidförsöket, som kan ha berott på ovan beskrivna tillstånd, var att vara utom räckhåll för hjälp: Man varken kunde eller ville söka hjälp.

Bland faktorer som patienterna trodde kunde hindra suicidförsök nämndes både saker som skulle kunna vara annorlunda och bättre i vården (större tillgänglighet, att kunna få mer hjälp och annan typ av hjälp än det man dittills fått, exv hjälp att få ett arbete och mer psykoterapi) och saker man behövde ändra i sitt eget tankesätt och beteende. Att bli bättre på att lösa bakomliggande problem och lära sig söka hjälp innan det är för sent betonades som viktiga faktorer som skulle kunna hindra suicidförsök.

Summering och betydelse

Bland personer som gjort suicidförsök finns könsskillnader både avseende vilka orsaker som anges för självmordsförsök och avseende riskfaktorer för framtida självmord. Mer forskning behövs kring hur självmordsbeteende påverkas av ens kön.

Det finns många förutfattade meningar i samhället och troligtvis även inom vården kring varför människor gör självmordsförsök, medan mycket litet forskning undersökt vad patienterna anser. Såväl enkäter som intervjuer visade att bakgrunden till självmordsförsök upplevs som komplex, med många bidragande orsaker. Viktiga orsaker är enligt patienterna ensamhet, psykiska symptom och relationsproblem (ffa enligt kvinnor), men även andra problem såsom ekonomiska problem och arbetslöshet är viktiga (ffa enligt män). Man kan ha flera samtidiga avsikter med ett suicidförsök, men den vanligaste och viktigaste verkar vara att ta sig bort från känslomässigt lidande.

Det finns vissa gemensamma drag bland personer som gör självmordsförsök – men också väldigt många skillnader. Det är därför viktigt att se och bemöta ”självmordsförsökare” som individer.

Trots eventuella tidigare goda råd att söka hjälp istället för att göra självmordsförsök så kan det upplevas omöjligt att söka hjälp när den behövs som bäst. Detta verkar till stor del bero på att man upplever ett tillstånd av nedsatt kognitiv förmåga och ett ändrat känsloläge (panik, desperation och förvirring, eller tunnelseende och avstängda känslor) i det läge då man gör ett självmordsförsök. Ytterligare forskning behövs för att förstå mer om dessa upplevelser, inklusive vad dessa tillstånd har för biologisk bakgrund, samt för att se om psykologiska strategier att kan utvecklas för att bryta akuta suicidala tillstånd. Sådana strategier skulle exempelvis kunna utgå från metoder för stress- och ångesthantering, då de akuta tillstånden visar likheter med symptom på extrema stresstillstånd.

Sett ur ett psykiatriskt perspektiv ter sig ofta den viktigaste åtgärden för att hjälpa patienten vara att behandla depression eller andra psykiatriska tillstånd. Våra fynd stöder att depressionsbehandling är viktigt, även ur ett patientperspektiv. Från patientens perspektiv kan dock även andra problem upplevas som livsavgörande och angelägna att få hjälp med. För att kunna göra detta är det troligtvis av avgörande betydelse att klinikern verkligen försöker förstå hur patienten ser på sitt liv, sin suicidalitet och på möjliga hindrande faktorer. Vidare kan multiprofessionella insatser krävas för att hjälpa patienter med icke-psykiatriska problem (såsom att få ett arbete). Att hjälpa patienter att bli bättre på att lösa bakomliggande problem och lära sig söka hjälp innan det upplevs som för sent verkar också viktigt.

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