Learning from suicides

Towards an improved supervision procedure of suicides in mental health care in the Netherlands

Annemiek Huisman

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Learning from suicides

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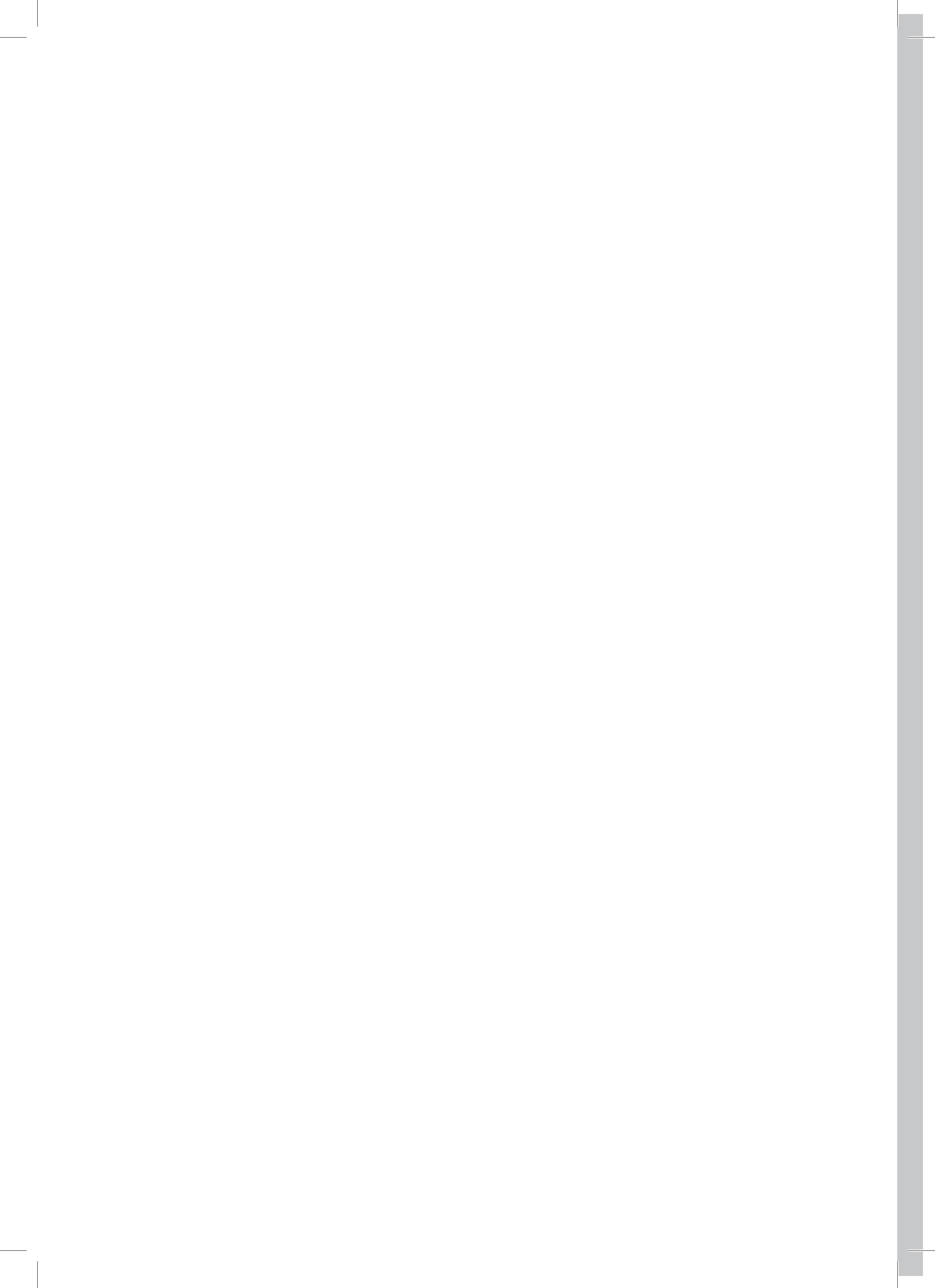
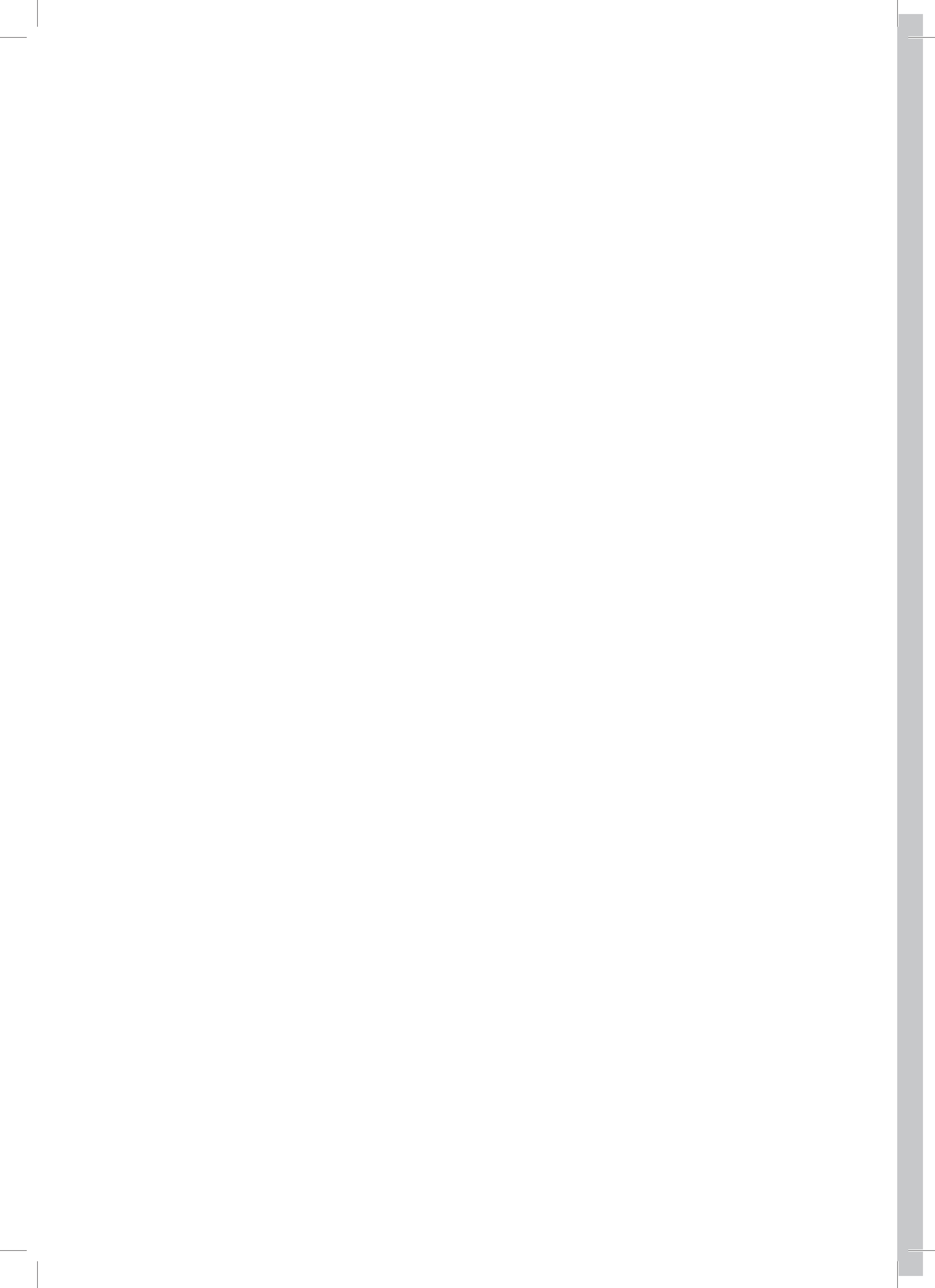


Part I

The problem: suicides in mental health care services



Chapter1

Introduction

Around 1,500 persons die every year as a result of suicide in the Netherlands (CBS, 2008). Currently, 44% of these suicides involve persons who were in contact with mental health care services (IGZ, 2008). Holland is one of the few European countries with a continuous national supervision and audit procedure for suicides among mental health care patients. When a patient dies as a result of suicide, or has attempted suicide resulting in severe medical damage, the clinicians involved and the medical board of the health care service are obliged by law to notify the Health Care Inspectorate. This is an independent organisation under the Minister of Health, Welfare, and Sport.

The notification has to include details of the suicide and the mental health care delivered. In addition, an evaluation of policies for dealing with suicidal patients is obligatory. When a suicide is reported, inspectors may ask for more information and in some cases require the health care service to improve mental health care provision to (suicidal) patients. The aims of this procedure are plural. The main goal is to identify structural problems in the organisation and care provision within mental health care services. Another purpose is that individual suicide notifications are assessed. Inspectors can then ask for specific changes or improvements in policies or care provision, or identify any malpractice.

The objective of this thesis is to provide an empirically-based insight into the functioning of the suicide notification procedure to the Inspectorate of Health Care, in order to evaluate the system and to improve supervision. This research is part of an evaluation programme concerning supervision of public health, health care and medical products initiated by the Health Care Inspectorate.

Definitions

In this thesis, suicide notifications to the inspectorate have been studied thoroughly. Only notifications concerning actual suicides are included in this research. Suicide notifications regarding medically serious suicide attempts have been excluded, since they are not reported consistently and their number is limited. The definition of a suicide as provided by the WHO is: 'an act with a fatal outcome which the deceased, knowing or expecting a fatal outcome had initiated and carried out with the purpose of provoking the changes he desired' (DeLeo, Burgis, Bertolote, Kerkhof, Bille-Brahe, 2005).

Suicides in mental health care

In around 90% of all suicides, at least one psychiatric diagnosis was found in retrospective autopsy studies, most commonly mood disorders (30.2%), substance -use related disorders (17.6%), schizophrenia (14.1%), and personality disorders (13.0%) (Bertolote, Fleischmann, De Leo, Wasserman, 2004, Cavanagh, Carson, Sharpe & Lawrie, 2003, Harris & Barraclough, 1997). Patients with mental disorders are thus more likely to die as a result of suicide. However, although mental illness is a major risk factor for suicide, and many suicide prevention strategies in the Netherlands are targeted at mental health care patients (Bool et al., 2008), mental disorders are a non-specific risk factor for suicide within mental health care services.

In order to identify the highest risk groups among those under treatment of mental health care services, additional risk factors influencing the suicide rates have been researched extensively. Many patient-based risk factors are well established, such as depression, hopelessness, previous suicide attempts, impulsivity and alcohol addiction. Less is known about treatment-based risk factors for suicide (Appleby et al., 2006, Pirkis, Burgess, Jolley, 2002, Hawton, Sutton, Haw, Sinclair, Deeks, 2005a, Hawton, Sutton, Haw, Sinclair, Harriss, 2005b).

Well-studied risk periods in mental health care treatment are the first weeks following admission to a psychiatric hospital and the first months after discharge (Qin & Nordentoft, 2005). With regard to service delivery, a short stay in inpatient settings and poor continuity of care are associated with an enhanced risk of suicide and readmission rates within 6 months with reduced suicide risk (Desai, Dausey, Rosenheck, 2005, King et al., 2001).Non-compliance with treatment could be a risk factor, at least for some diagnostic groups of patients (Hawton et al., 2005a, King et al., 2001). Even the organization of mental health care services can influence suicide rates. In a nationwide study in Finland, community-based, multifaceted mental health services were associated with lower suicide rates than services that were oriented towards inpatient treatment provision (Pirkola, Sund, Sailas, Wahlbeck, 2009).

Adequate treatment of mental disorders is therefore a cornerstone of suicide prevention. Many national and international organizations have developed guidelines for the treatment of suicidal patients, in order to optimize care provided and to promote prevention (see Chapter 2). In the Netherlands, the supervision procedure for suicides in mental health care is a further approach to improve quality of care for suicidal patients and ultimately to prevent suicides.

Supervision and the Health Care Inspectorate

The Dutch Health Care Inspectorate reports on request and at its own initiative to the Minister of Health, Welfare, and Sport. It aims to protect and promote health care by preserving and supervising quality of care, prevention and medical products. The main focus lies on patient safety and effective, patient-centred care.

In order to ensure quality of health care provision in the Netherlands, the inspectorate uses different methods of supervision. This includes general and thematic supervision, and supervision of calamities. New procedures in supervision methods have been installed recently. Since 2002, supervision has been organised according to the principles of risk-based supervision. Risk-based supervision is aimed at the detection of services that provide inadequate care. In order to identify malfunctioning services, general and mental health care services must provide the inspectorate with scores for a set of quality indicators. Based on this information, the inspectorate initially determines which services are at risk for insufficient care provision. In the second phase, those services are inspected in a purposeful way. Inspectors assess the quality of health care provision and might request a plan to improve services. In the third phase, supervision can be intensified or even become repressive.

The suicide rate within a mental health care service was included in the first set of quality indicators of mental health care (2007). However, the validity of suicide rates as a quality indicator has been debated (Bool et al., 2007). Numbers of suicides within mental health care services are generally low and can fluctuate considerably. Moreover, questions have been raised as to whether every suicide is related to the quality of mental health care provided. As a result of these objections, the suicide rate was removed from the set of quality indicators for 2009. A new indicator is still under development.

Besides the introduction of risk-based supervision procedures in 2002, other changes in supervision have also developed recently. At the request of the Minister of Health, Welfare, and Sport, the Dutch research institute ZonMw studied the conditions that have to be met for effective and safe reporting of incidents within health care (Legemaate, Christiaans-Dingelhoff, Doppegieter, de Roode, 2006). ZonMw advised that in an effective and safe reporting system within health care services, individual notifiers should be protected from legal prosecution. In response to this publication, the inspectorate has guaranteed that clinicians can report incidents within a health

care service to a system that is inaccessible to the inspectorate (Vesseur & van der Wal, 2007). The purpose of this promise is to promote improved learning from adverse events.

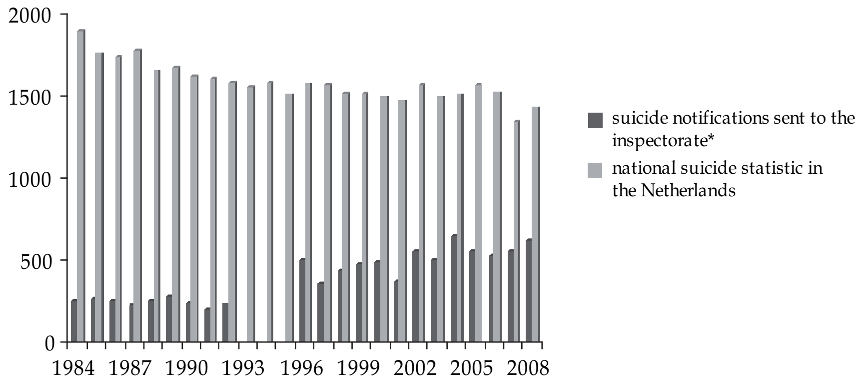
Supervision of suicides in mental health care in the Netherlands

The system of suicide notifications to the inspectorate has been in operation for more than a century , and has evolved significantly during that time. Initially, possibly from as early as 1841, the frequency of inpatient suicides was reported to the inspectorate, as a part of annual reports written by mental health care services (Bijl, Brunenberg, van Dijk, de Graaf, 1992). In the beginning of the 1980's, the first Dutch research on suicides in inpatient settings was published, and showed that suicide rates had risen strongly in the 1970's (de Graaf, 1982). As a result of these observations, the inspectorate asked mental health care services to report on inpatient suicides in detail from 1984 onwards. Since then, the inspectorate has kept a register of these suicides. Due to changes in the organisation of mental health care services, outpatient suicides have also been reported since the early 1990s (Brunenberg & Bijl, 1996). Currently, all mental health care services must report suicides to the inspectorate on the basis of the Health Care Institutions Quality Act ('Kwaliteitswet zorginstellingen', 2005). Under the quality law, a suicide is seen as a calamity. The definition of a calamity is 'an unintentional or unexpected event that is related to the quality of care and leads to the death or serious injury of a patient'. Both inpatient and outpatient suicides in mental health care services and psychiatric wards of general hospitals must be reported. Recently, private practices have also increasingly been reporting suicides to the inspectorate.

For an overview of the number of suicides reported to the inspectorate in comparison with the total number of suicides per year in the Netherlands, see Table 1.

In recent years, several changes have taken place in the context of the supervision procedure. In 2006, the inspectorate introduced a new format summarizing the information required in a suicide notification. This format is based on international guidelines for the treatment of suicidal patients and places more emphasis on suicide risk assessment and treatment of suicidal impulses.

Table 1. Number of suicide notifications to the inspectorate.



* numbers of suicide notifications sent to the inspectorate in the period 1993-1995 are unavailable*

In 2007, a family member of a mental health care patient who died by suicide demanded access to medical files and the suicide notification through the inspectorate. The court involved with this case ruled that access should be granted pursuant to the Government Information (Public Access) Act ('Wet Openbaarheid Bestuur'). This led to major commotion within the mental health care field, since patient confidentiality was breached. Several mental health care services decided to stop reporting suicides. Weeks after the courts' decision, the Minister of Health, Welfare, and Sport ruled that the inspectorate is not allowed to disclose the content of suicide notifications. The line of reasoning behind this decision was that the interest of disclosure did not weigh against the interest of the inspectorate and its role as a supervisory organ. In addition, if the content of suicide notifications is public this will damage the confidentiality between clinicians and their patients. The Minister of Health, Welfare, and Sport intends to amend this law in the future.

In 2008, a psychiatrist argued that the inspectorate's conception of its tasks and duties is too limited. She reasoned that the inspectorate should also examine the suicides that are not reported to the inspectorate, such as suicides by those in contact with primary care, and thus help develop suicide prevention strategies. In her view, it is plausible that problems with access to and provision of mental health care are more prevalent among suicides that are not reported to the inspectorate (Rus, 2008). The inspectorate formally responded that it does not hold primary responsibility for the development of suicide prevention policies and that general practitioners and

other clinicians working in primary care are not obliged by law to report suicides to the inspectorate (Schippers & Schellekens, 2008).

Previous research

The supervision procedure for suicide has never been evaluated in terms of effectiveness. However, suicide notifications have been studied earlier by Bijl & Brunenberg (1992, 1996). A total of 1,550 suicide notifications concerning inpatient suicides over the 1984-1989 period were studied for patient and treatment characteristics and by means of qualitative research methods. Results found a male-female ratio of 1.12 : 1 and a mean age of 42.5 years. Subjects had experienced, on average, 3 previous hospitalisations before their last admission, 45% had made no earlier suicide attempts and 55 % had attempted suicide at least once. Qualitative research found indications of several deficiencies in mental health care provision, such as insufficient contact between a patient and the clinicians involved, insufficient contact between clinicians and a patient's relatives, insufficient contact between several clinicians' involved with a patient, inadequate knowledge of suicidality, and insufficient quality and continuity of care.

Lucier (2005) discussed the suicide notification procedure briefly in his thesis. He refutes the notion that the inspectorate sees every suicide as a failure of clinicians. According to Lucier, the main criterion in the assessment of suicide notifications is whether the interests of the patient have been sufficiently met. In this respect, specific attention is paid to:

- the distribution of tasks, responsibilities and competencies
- timely involvement of a psychiatrist
- the adequacy of psychiatric assessment
- the choice of treatment and the care provided
- if and how a patient was protected
- whether agreements were followed
- aftercare for bereaved relatives
- the way fellow patients are informed and measures taken to avoid further crisis situations
- the evaluation of the suicide by the team involved
- consequences for the department or service

Lucier writes that in a large number of suicide notifications, recommendations have been made with the purpose of contributing to the quality of mental health

care. In addition, he specifies points of attention in the care of suicidal patients that should be improved, based on information from suicide notifications. Examples of these points of attention are that psychiatrists are not regularly involved by other clinicians in the treatment of suicidal patients or that psychiatric assessment is carried out by clinicians who do not have the appropriate training or expertise. However, the empirical bases for these conclusions were not provided.

International comparison with other supervision systems

Several countries in Europe try to improve quality of mental health care by operating a form of supervision of suicides in mental health care, including the United Kingdom (National Confidential Inquiry into Suicide and Homicide by People with Mental Illness), Sweden (National Board of Health and Welfare), Denmark (Danish National Board of Health), Norway (Norwegian Board of Health Supervision) and the Netherlands. The execution and aims of these supervision systems vary. In the UK, information on suicides by mental health patients is gathered anonymously (Appleby et al., 2006). The objective is to make recommendations for clinical practice and for national policy to reduce suicides by people in contact with mental health services. So far, recommendations have focussed on improving continuity of care, safety in inpatient clinics, risk management and patients with dual diagnoses.

Other countries, such as the Netherlands and Norway, require mental health services to report on every suicide in detail to official supervisory organizations, with the purpose of identifying structural problems in mental health care delivery and to improve quality of care. Supervisors in this system can respond with further questions or remarks in suicide notifications, or demand improvements. Malfunctioning institutes or practitioners can be sanctioned on the basis of suicide notifications, although in actual practice, more signs of the malfunctioning of a clinician or service are necessary.

Research into the effects of governmental supervision of suicides in mental health care is scarce. The only known published study was conducted by Ronneberg & Walby in Norway (2008). After collection and examination of reports made by county medical officers in 2005 and 2006, the authors concluded that 34 out of 176 (19.3%) of suicides were not reported according to the requirements. In addition, almost none of the reporting institutions had evaluated care after a suicide in order to improve quality of care.

Aims and objective of the thesis

The main objective of this thesis is to investigate the functioning of the suicide notification procedure in the Netherlands in order to improve supervision of suicides. This encompasses several sub-studies:

1) A study into guidelines for good clinical care for suicidal patients: what is good clinical practice?
2) A study into the characteristics of suicides reported to the inspectorate and subsequent responses by inspectors to notifications of suicide during 1996-2006. What is the response rate to the content of the suicide notifications, what aspects do inspectors consider to be important, what is the consistency of the reactions from inspectors with the most recent guidelines for good clinical practice and have responses to suicide notifications changed in recent years?
3) A study into the impact of the inspectors' reactions on the field. Clinicians, mental health care directors and inspectors who handle suicide notifications are interviewed about the functioning of the supervision of suicides.
4) A study into practical aspects of suicide prevention in mental health care services.

The ultimate goal is to evaluate the current system and to make recommendations for improvements or the implementation of new procedures that are powerful in monitoring the quality of care delivered to suicidal patients.

Outline of the thesis

This thesis consists of four parts:

Part I: *The problem: suicides in mental health care services*

The Health Care Inspectorate uses the standards accepted in the mental health care field for the assessment and management of suicide notifications. However, no national interdisciplinary guidelines for good clinical practice are available in the Netherlands. In this context, Chapter 2 provides an overview of foreign national and international guidelines for the assessment and treatment of suicidal patients.

In Chapter 3, an overview of patient and treatment characteristics is provided on a sample of 505 suicide notifications in the 1996-2006 period. In addition, an analysis is presented of evaluations of these suicides by the clinicians involved and the board

of the mental health care institution, including the implications for improvement of mental health care provision and suicide prevention.

Part II: *The procedure: supervision of suicides in mental health care services*
Chapter 4 reports on a study into the management of suicide notifications by the Health Care Inspectorate, including the response rate of inspectors and the type of response in the context of the information provided in a suicide notification, the content of responses made by the inspectorate, and changes in responses over the 1996-2006 period.

In Chapter 5, we report on a study that provides an evaluation of the effectiveness of suicide notification according to clinicians, mental health care directors and inspectors. This includes recommendations for the functioning of the notification procedure.

Part III: *The practice: Aspects of suicide prevention in mental health care services*
In part three, aspects of mental health care for suicidal patients are examined, illustrating how information extracted from suicide notifications can be used to make recommendations for improved treatment of suicidal patients. Chapter 6 is a brief report on the use of no-suicide contracting for mental health care patients, and discusses its effectiveness.

In Chapter 7, a study on the associations between psychiatric diagnosis and suicide methods in mental health care patients is presented.

Chapter 8 discusses policies for the prevention of suicides after discharge from inpatient care at several mental health care institutions.

Part IV: *Theoretical considerations and recommendations*
In Chapter 9, the functioning of the supervision procedure for suicide in mental health care is discussed with regard to the improvement of quality of care and supervision of malpractice. Lastly, based on all results, a new model for supervision is presented.

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Chapter 2

Guidelines for the assessment and treatment of suicidal patients: An overview

Published (in Dutch) as:
Richtlijnen voor de behandeling van suïcidale patiënten.
Huisman, A., Kerkhof A.J.F.M., & Robben, P. (2007).
In C.S. Schene (Ed.), Jaarboek Psychiatrie en Psychotherapie, 83-97. Houten: Bohn Stafleu van Loghum.

Introduction

In the Netherlands, no interdisciplinary guideline exists for the assessment and treatment of suicidal patients. Interdisciplinary guidelines for anxiety, depression and schizophrenia are available, but these pay little attention to suicidal behavior, focus on mental disorders and give little directions for the treatment of suicidal patients.

Therefore, the authors provide an overview of foreign national and international guidelines for the treatment of suicidal patients in this chapter, together with relevant literature. The emphasis lies on suicide and to a lesser extent on suicide attempts. With this overview, the authors hope to provide an impulse to further development of guidelines.

Methods

In this chapter, we present an overview of guidelines from foreign national and international organizations. In addition, national suicide prevention programs were screened for guidelines on the treatment of suicidal patients. In this context, the assessment of suicide risk is seen as a part of the treatment.

Most guidelines are based on empirical research and expert consensus. We aim to present general conclusions of the reviewed guidelines, not to supply a complete overview of all evidence and backgrounds. In this chapter, we refer to the guidelines used and to evidence supporting the general conclusions. Furthermore, we limit ourselves to a brief and up to date overview of guidelines for nurses, physicians, psychiatrists, psychologists, and guidelines for pharmacological treatment.

Results

From an international perspective, several guidelines for the treatment of suicidal patients have been published. The American Psychiatric Association released the "Practice Guidelines for the Assessment and Treatment of Suicidal Patients' in 2003. The American Association for Suicide Prevention brought out 'AAS Recommendations for Inpatient and Residential Patients Known to be at Elevated Risk for Suicide' in 2005. The International Association for Suicide Prevention (IASP) published several guidelines, such as the 'IASP Guidelines for Suicide Prevention' in 2000. The World Health Organization published an overview in 2004 titled "For which strategies of

suicide prevention is there evidence of effectiveness?" Next to this, several review articles about the treatment of suicidal patients have been published (Mann et al., 2005, Goldney, 2005). Regarding suicide prevention in clinical settings, guidelines based on leading studies have been published, such as the National Confidential Inquiry (Appleby et al., 2006). In table 1, a brief overview is given of recommendations of several guidelines. Not every guideline is based on empirical research to the same extent. Some guidelines reflect developments in clinical consensus. Taken together, these guidelines can be seen as an evolving field.

Suicide risk assessment

In all reviewed guidelines it is stressed that suicide risk should be assessed regularly, in both inpatient and outpatients settings. For initial registration procedures, it is advisable to always inquire about suicidal ideation. Additional information from significant others is of interest in this process. Furthermore, it is advisable to repeat risk assessment at regular intervals, since suicidal urges can fluctuate in intensity. However, suicide risk assessment can never enable a clinician to predict which individual patient will die as a result of suicide. Patients can only be classified in high-risk groups.

Advantages of risk assessment are better protection of patient safety and well informed choices regarding hospitalization can be made. Also, the assessment process can lead to improved contact with patients, improved discussion of suicidal impulses and better adjustments of treatment for individual patients.

Below, we sum up all aspects that could be of interest for a comprehensive suicide risk assessment.

A. Assessment of long term risk factors for suicide

Suicide risk is elevated in depressive disorders, anxiety disorders, schizophrenia, eating disorders, personality disorders, and in addiction to drugs or alcohol. Psychiatric disorders are risk factors for suicide regardless of its current condition. In combination with all of the above mentioned disorders, suicidal communication and previous suicidal behaviour, a high level of hopelessness and despair, impulsivity, intense anxiety or panic attacks, recent alcohol abuse, are additional risk factors. Co-morbidity also enhances the suicide risk.

Table 1. Recommendations of guidelines for the treatment of suicidal patients

	International		U.S.A.				New Zealand	Germany	Great Britain
Aspects of treatment in the guideline	**IASP**	**WHO**	**APA**	**AAS**	**RMF**	**MOMHDD**	**Spinz**	**DGS**	**NICE**
Suicide risk assessment	√	√	√	√	√	√	√	√	√
Involvement of significant others	√	√	√	√	√	√	√	√	√
Cautious use of no-suicide contracts			√	√	√	√	√		
Continuity of care	√	√	√	√	√	√	√	√	√
Treatment plans for suicidality			√	√	√	√	√		√
Documentation			√	√		√	√		√

√: recommended
IASP: International Association for Suicide Prevention
WHO: World Health Organization
APA: American Psychiatric Association
AAS: American Association of Suicidology
RMF: Risk Management Foundation, Harvard Medical Institutions
MOMHDD: Minnesota Ombudsman for Mental Health and Developmental Disabilities
Spinz: Suicide Prevention Information New Zealand/Ministry of Health New Zealand
DGS: Deutsche Gesellschaft für Suizidprävention
NICE: National Institute for Clinical Excellence

For *depression*, an acute suicide risk is associated with intense anxiety, loss of concentration, sleeplessness, anhedonia, alcohol abuse and panic attacks (Fawcet et al., 1990). Long term risk is associated with previous suicide attempts, the severity of the disorder and sustained feelings of hopelessness and despair (Fawcet et al., 1990, Lönnqvist, 2009).

Meta-analyses show that the suicide risk is 20 times higher in depressive disorders compared with the general population, 15 times higher for bipolar disorder, 12 times for dysthymic disorder and 16 times for mood disorder not further specified (Harris & Barraclough, 1997). A conservative estimation comes down to a life time risk of 6% (Inskip et al., 1998). For relatively young patients, the suicide risk is enhanced in the first phases of the illness.

For *anxiety disorders*, the association with suicidality has been studied less thoroughly. Recent epidemiological studies show that anxiety disorders are related to suicidal ideation and suicide attempts (Sareen et al., 2005). The combination of anxiety and depressive disorders enhance the suicide risk. Compared with the general population, the risk of suicide in patients with anxiety disorders is 6 to 10 times higher (Harris & Barraclough, 1997).

For *schizophrenia*, the suicide risk is 8.5 times higher than in the general population (Harris & Barraclough, 1997). Life time risk is estimated to be 4,9% (Palmer, Pankratz, Bostwick, 2005). For patients with schizophrenia, the risk is enhanced with comorbid depression, previous depressive episodes, previous suicide attempts, addiction to substances, hopelessness and despair, loneliness, dissatisfaction with social relationships, and major life events (Hawton et al., 2005). The risk is also enhanced when relapse is periodical and severe, and if the prognosis was unfavourable in the first weeks of hospitalisation (Roy, 1986). The period after inpatient care also is a well known risk factor (Ping & Nordentoft, 2005). Men, especially young men, run a higher risk (Hawton et al., 2005, Appleby, 1992). In addition, more intelligent patients might have a higher risk, possibly since they have a better insight into the consequences of the disease for their future (Hawton et al., 2005). Hallucinations encouraging patient to attempt suicide can precede an actual suicide, although this is relatively rare. Suicide can also occursw in more stable periods, periods of improvement, or depressed episodes.

For patients *addicted to alcohol and drugs*, the suicide risk is about 6 times higher than in the general population (Harris & Barraclough, 1997). Life time risk is estimated to be 3-4%. Among alcoholics, the risk is higher for comorbid disorders, especially

depression, and (threatening) interpersonal loss (Duberstein, Conwell & Cain, 1993). Suicidal communication is a risk factor, as are previous suicide attempts. The risk increases with older age, and with long term alcohol addiction. For patients addicted to drugs, suicide seems to be more frequent in the younger age groups (Roy, 2003, Rossow, 2006).

For patients with *personality disorders*, the risk of suicide is 7 fold higher that the general population (Harris & Barraclough, 1997). In this context, the risk seems to be most pronounced in borderline and anti social personality disorders (Linehan et al., 2000). Suicide risk further increases with unemployment, financial problems, conflicts or loss of significant others, and impulsivity (Stanley & Jones, 2009, Runeson & Beskow, 1991). When patients with a personality disorder die as a result of suicide, frequently a co morbid depression or addiction disorder is present (Stanley & Jones, 2009). Narcissistic injury can also function as a risk enhancing factor (Wasserman, 2001).

For eating disorders, especially in *anorexia nervosa,* there is an increased risk of suicide, especially if there are co morbid self destructive behaviours or depression (Harris & Barraclough, 1997, Holderness, Brooks-Gunn, Warren, 1994).

Physical disease is a risk factor for suicide, especially if the disease leads to psychiatric disorders such as depression, or to psychological responses as hopelessness. The suicide risk is further increased if there are many functional disabilities, or mutilations, pain and dependence. Specific risk factors in this context are Aids/Hiv, epilepsy, brain injuries and spinal cord lesions, Huntington's chorea and cancer (Stenager & Stenager, 2009).

Hopelessness is an important risk factor for suicide (Beck et al., 1990). It can be seen as the bridge between depression and suicide. The tendency to react with hopelessness to disappointments in life often is a long term personality trait.

Impulsivity, aggression and self harm in combination with all psychiatric disorders are associated with an increased suicide risk, especially in borderline personality disorder (Stanley & Jones, 2009, McGirr, Paris, Lesage, Renaud, Turecki, 2007).

In *detention,* a number of long term and acute vulnerability factors that enhance suicide risk have been identified: older age (40+), violent offences, long criminal sentences, addiction and other psychiatric disorders and history of mental health care use, previous suicide attempts, and suicidal communications during detention (Blaauw, Kerkhof, Hayes, 2005). The combination of repeated imprisonment with

personality disorders and addiction enhances the risk of emotional deregulation and suicide (Kerkhof & Blaauw, 2009).

Several *personality dimensions* are associated with suicidal behaviours, such as neuroticism, perfectionism, dichotomous thinking, rumination, vulnerability for narcissistic injuries, low self esteem and helplessness/hopelessness (Chioqueta & Stiles, 2004, Hewitt, Flett, Weber, 1994, Smith et al., 2006, Wilburn & Smith, 2005, Hall, Platt, Hall, 1999) .

Victims of *domestic violence* have an increased risk of suicide (Bergman & Brisman, 1991). A long term vulnerability to suicide can sometimes be expected in persons who deal with emotional neglect, divorce, domestic violence, sexual abuse or incest (Dube et al., 2001).

Suicides in a patients family can give an indication for vulnerability to suicide (Baldessarini & Hennen, 2004).

B. Long term protective factors

Long term protective factors for suicide are less studied than risk factors. The most well-known protective factor is religion (Lester, 2000). People with a strong religious life and involvement with church have a lower risk of suicide. Another protective factor is connectedness to family (Borowsky, Ireland, Resnick, 2001). For women, having children reduces the suicide risk (Qin, Agerbo, Mortensen, 2003). Persons with stable and longlasting relations, friends and social networks are, as a group, less vulnerable to suicide.

C. Previous suicidal ideation and suicidal behaviour

A history of previous suicide attempts, self-destructive behaviour and suicidal ideations are related to an enhanced suicide risk. About 2% of all suicide attempters die within a year after their attempt, and 7% die by suicide within several years of the attempt (Owens et al., 2002). Especially patients who attempted suicide more than once (Zahl & Hawton, 2004), used violent methods and had a higher intention to die have a higher suicide risk (Holley, Fick, Love, 1998).

In the systematic assessment of suicide risk, a patient's history of suicidal behaviours should be examined, as well as their intensions and methods used. Suicidal ideation, communication and attempts can be seen as part of a suicidal process, which starts with suicidal thoughts and develops into plans and methods.

D. Current ideation

It is important to ask a patient how specific current thoughts, wishes and plans for suicide are. The more detailed and concrete the plans are, the higher the risk (APA, 2003). If the patient is increasingly hopeless and sees no perspective for the future, the suicide risk increases (Brown et al., 2000).

Suicidal ideation is an important aspect of the assessment, but its implications become clear against the background of long term vulnerability and protective factors. A low level of suicidal ideation can be alarming if a patient has many risk factors for suicide.

E. High risk periods/moments

Several studies show that specific periods are associated with an increased suicide risk. Well know high risk periods are the first weeks of hospitalisation, the first three months after discharge from psychiatric inpatient care (Qin & Nordentoft, 2005), and de first months after discharge from a general hospital after a suicide attempt (Hawton, Zahl, Weatherall, 2003). Other risk periods are the first week in detention, the weeks before release from imprisonment (Blaauw, et al., 2001, Blaauw et al., 2005, APA, 2003), and solitary confinement in prison, in which the suicidal urges can be intensified (Haney, 2003, Bonner, 2002). The suicide of a family member, fellow patient, fellow prisoner, and clinician may also be moments of high risk (Appleby, 1992). Furthermore, changes in mental health care provision, such as the loss of a trusted therapist, and transfer to another psychiatric ward can be dangerous periods (King et al., 2001). Recent loss or the threat of loss in the near future can also be a risk period for suicide (Hawton et al., 2005, Maris, 2002).

F. Current vulnerability factors

The acute suicide risk is determined by current internal and external vulnerability factors, such as the end of a relationship, the current level of hopelessness or depression, the amount of consumed alcohol, emotional desperation, impulsivity and crisis. The current psychosocial situation can also be important: living alone is a risk factor (Philips et al., 2002). The availability of means to suicide, such as medication or guns, can be critical in case of emotional upheaval. The proximity of a railway or high building can sometimes be decisive (APA, 2003, Ministry of Health, 2003, Mann et al., 2005).

G. Current protective factors

Current protective factors are the presence of significant others and a domestic situation in which others are present (Borowsky et al., 1999, Anteghini et al., 2001). The possibility of (re) admittance to psychiatric inpatient care might improve safety (Desai et al., 2005). Continuity of mental health care can also be a protective factor (Motto & Bostrom, 2001, Desai et al., 2005).

H. Assessment scales

The intensity of suicidal ideation can be measured with the Suicidal Ideation Scale (Beck et al., 1979). The suicide risk in schizophrenic patients can be measured with the InterSePT-scale (Preston & Hansen, 2005). The Suicide Intent Scale (SIS) gives an indication of the intention of a suicide attempt (Beck et al., 1974). For detention, there are several screening instruments for the detection of prisoners with enhanced suicide risk (Blaauw & Kerkhof, 2000, 2005).

Treatment of suicidal behavior

Guidelines frequently note that the strength of the therapeutic connexion is of vital importance for the treatment of suicidal patients. Clinicians generally are advised to be emphatic and accepting towards suicidal patients. This can be challenging if a patient evokes strong feelings of counter transference. Therefore, several guidelines advise frequent consultation with a colleague. Frequent changes of treating clinician are discouraged.

The American Psychiatric Association recommends that the focus of treatment should be on risk factors that can be influenced, such as the adequate treatment of psychiatric disorders and anxiety, agitation and hopelessness (2003). Furthermore, protective factors can be strengthened, by providing psycho education about suicide to the patient and significant others (APA, 2003). Because suicidal behaviours are usually caused by different factors, it is important not only to treat psychiatric disorders but suicidal impulses as well. Suicidality should be discussed explicitly in such a way that patients learn to deal with their thoughts and feelings. A clinician can examine with the patient whether there are solutions that can help make life more bearable. Important goals in life can be discussed, as well as the things a patient can do if these goals are threatened.

Suicidality in outpatient settings

Outpatient treatment is generally recommended when a patient has chronic suicidal ideation or behaviours (APA, 2003). In practice, this is common in patients with borderline personality disorders (Paris, 2002). In this context, hospitalisation can be counterproductive if it increases dependence and regression. An important condition for outpatient treatment is that the domestic environment of a patient is safe and supportive, and that continuity of care is guaranteed (APA, 2003). It is also essential that the patient's significant others are informed about the accessibly of the treating clinician by phone, and who can be contacted outside office hours. A crisis card with important phone numbers can be considered, although clear evidence on it's effectiveness is lacking (NICE, 2004, Ministry of Health/New Zealand Guideline Group, 2003).

In case of crisis situations in which the suicide risk is acute, temporary interventions can be made. More intense treatment can be offered, or extra safety measures can be taken, such as specific agreements with family members or phone contact. Lastly, it is important that a clinician reacts in an active and outreaching manner if a patient with enhanced suicide risk is non-compliant with the treatment or does not show up at appointments.

Suicidality in inpatient settings

The American Psychiatric Association has made several recommendations regarding hospitalization. The assessment of suicide risk plays an essential role in this context. Other important aspects are whether a patient takes care of him or herself, can handle crisis situations, provides reliable feedback and is compliant with treatment. According to the American Psychiatric Association, hospitalisation is recommendable when a patient who has attempted suicide is psychotic, or when the attempt was near fatal, preparations to avoid discovery were made, when the patient regrets surviving the attempt, or when social support is lacking. When the patient exhibits impulsivity, agitation or refuses help after a nearly fatal suicide attempt, hospitalisation is also recommended.

If a patient reports suicidal ideation combined with a distinct intention to die or with specific plans, hospitalisation can be indicated. In this decision process, the advantages of a possible hospitalisation should be weighed against the disadvantages, such as stigma, dependence and unrealistic expectations. Hospitalisation is no guarantee that a patient will not commit suicide. During hospitalisation, it is advised

to limit use of seclusion as much as possible, since there is growing evidence that isolation might have harmful effects (Ray et al., 1996, Singh et al., 1999).

All guidelines emphasize that special attention should be given to discharge. Before discharge, the suicide risk has to be reassessed (AAS, 2005). Furthermore, it can be advisable that patients with an increased suicide risk receive a phone number that is accessible in case of a crisis (AAS, 2005). Another recommendation is that follow-up appointments should be arranged before discharge and that compliance with these appointments is examined.

A specific point of attention for outpatient clinicians is that although a patient's depressive symptoms might have reduced, suicidality may still be an issue. If necessary, readmission should be possible.

Imitation

If a suicide occurs in inpatient settings, imitative suicides might occur (McKenzie et al., 2005). According to the guidelines, it is advisable to inform fellow patients about the suicide (Loyd, 1993) and to assess individual suicide risk (Bartels, 1987). Afterwards, appropriate measures can be taken.

Furthermore, an evaluation of a patient's suicide by all clinicians involved is advisable and mandatory in the Netherlands (Huisman et al., 2009; Dutch Health Care Inspectorate). Clinicians may be seriously affected by a suicide, and risk post traumatic stress, burn out and feelings of guilt (Hendin et al., 2000).

Psychotherapy

All guidelines recommend that psychotherapy is an important element in the treatment of suicidal behaviours. There is some evidence for the effectiveness of cognitive behaviour therapy, problem solving therapy, interpersonal problem solving therapy and dialectical behaviour therapy (Salkovskis et al., 1990, Hawton et al., 1998, Brown et al., 2005, Verheul et al., 2003, McLeavey et al., 1994, Guthrie et al., 2001) . The focus of treatment should be on the reduction of suicidal behaviour (APA, 2003) and treatment compliance. Personal traits such as helplessness, dichotomous thinking, rigid styles coping with interpersonal conflicts, rumination, depression, anxiety, and hopelessness towards the future may be important subjects that can be addressed in psychotherapy.

Pharmacological treatment

Prospective research has not shown unambiguously that pharmacotherapy reduces suicide risk (Mann et al., 2005). However, epidemiological studies indicate that some medication treatments may lead to reduced suicide risk.

Randomised clinical trials have never demonstrated that antidepressant use reduces suicide rates (Fergusson, et al., 2005, Tiihonen et al., 2006). Guidelines recommend prescription of SSRI's to patients with enhanced suicide risk, since they are less toxic in overdose than tricyclic antidepressants. The APA recommends clinicians to warn their patients that when they start taking antidepressants, suicidal impulses and the energy to act on them can increase. The clinician should closely monitor patients in this period. Prescribing antidepressants to children and adolescents is generally advised against,due to the enhanced risk of suicide attempts or instability (Hammad et al., 2006, Katz et al., 2008).

For patients diagnosed with bipolar disorder, prescribing lithium is recommended. Research shows that lithium use reduces the risk of suicide and suicide attempts (Kessing, Søndergård en Kvist, 2005).

Concerning the prescribing of antipsychotics, clozapine seems to be effective in reducing suicide rates (Hennen & Baldessarini, 2005).

Most guidelines advice prescribing limited amounts of medication to suicidal patients, e.g. weekly or monthly prescriptions.

Chronic suicidal ideation

Guidelines addressing patients that frequently self harm or attempt suicide recommend treatment with behavioral techniques on an outpatient basis, such as dialectical behavioral therapy. Main conditions are that psychiatric care is ongoing and the patient has sufficient social support (APA, 2003).

Electroconvulsive therapy is an effective treatment for patients with severe and therapy resistant depression and suicidality. Research shows that electroconvulsive therapy is associated with a fast reduction of suicidal thoughts (Kellner et al., 2005).

Family members and significant others of a suicidal patient

All guidelines recommend involvement of family members or significant others, if possible, in the treatment of suicidal patients. However, some patients are reluctant about the involvement of significant others. If the safety of a patient is in danger, the pledge of secrecy should be broken.

Furthermore, several guidelines recommend that a patient and significant others should receive psychoeducation about the treatment and suicidality, including the warning signals of suicide, the enhanced suicide risk during leave or discharge from inpatient care, the necessity of medication and adherence to treatment, and the influence of a psychiatric disorder on judgment. In addition, they should be informed that the removal of means to suicide can be effective and that the use of alcohol and drugs increases the suicide risk. Furthermore, significant others should know that a patient can become suicidal when a depression lifts. They should also receive instructions about the accessibility of mental health care, and what to do with concerns regarding the patient.

No-suicide contracts

Virtually every guideline emphasizes that no-suicide contracts are no guarantee that a patient will not die as a result of suicide, and that they can create a false sense of security. The choice for discharge or leave should never be solely based on a patients willingness to enter a no-suicide contract. Contracts can never replace risk assessment and treatment (APA, 2003).

Availability of means to suicide

The availability of means plays an important role in suicides (Mann et al., 2005). It is recommended that in psychiatric hospitals, the possibilities for impulsive suicide attempts are reduced, for example by placing nets in an atrium, place fences and cameras at nearby railway tracks, or cover up water and electricity pipes.

Suicide in different settings

Early detection by general practitioners

Of those who died by suicide, about half have contacted their general practitioner in the month before the suicide. General practitioners can play an important role in suicide prevention. Guidelines published by the WHO recommend that general practitioners should learn to recognize patients with an enhanced risk of suicide (WHO, 2000). Patients who have been depressed in the past should receive special attention. The Dutch standard for general practitioners prescribes that in diagnostic assessment of depression, a standard question about suicidal ideations should be asked (Nederlands Huisartsen Genootschap, 2003).

Suicide attempters in general hospitals

Since January 1991, a CBO protocol (Dutch) exists for the (after)care of suicide attempters in general hospitals. This guideline recommends that clinicians assess the suicide risk of every suicide attempter, regardless of the severity of their condition. Afterwards, appropriate care should be arranged. Research shows that only a minority of Dutch general hospitals uses guidelines for the aftercare of suicide attempters. Local guidelines are infrequently based on international guidelines and their quality is generally assessed as inadequate (Verwey et al., 2006).

Conclusion

It is evident that the prevention of suicide is the main principle in every guideline for the treatment of suicidal behavior. There might be exceptions in which suicide is a rational choice, or the least bad solution. However, in the far majority of cases, suicide cannot be seen as a rational choice nor as a preferred solution, but as an expression of despair that deserves attention. An underlying theme is the lengthy nature of suicidal urges. Suicidal behavior is frequently characterized by repetition. Clinicians must be able to recognize this long term vulnerability for suicide. Even after successful treatment of depression, the tendency towards suicidal behavior can persist and return after new disappointments. Continuity of care and relapse prevention are therefore essential elements in treatment. Another important principle is that suicidal ideation and behavior can manifest themselves in many different disorders. Suicidality resembles fever, it signals that something is wrong, but is not specific. Suicidality can be a symptom or the consequence of an illness, but can also be an indication of the severity of a depression or anxiety disorder. At the same time, it can also reflect the difficulties of living with the consequences of a psychiatric illness.

All guidelines provide an optimistic view: when those with suicidal ideation and impulses are treated adequately, it may be possible to prevent suicide (APA, 2003, NICE, 2004, AAS, 2005, WHO, 2000). When guidelines are carefully applied, suicide risk can decrease systematically. Most guidelines acknowledge that it is not always possible to prevent all suicides,nor that a suicide means that treatment was inadequate. Realism is in place, not all suicides can be prevented, but more suicides might be prevented if the guidelines are carefully applied. About half of those who die as a result of suicide were in treatment of mental health care services or in private practices of psychiatrists or psychologists. The use of guidelines could be a powerful

instrument in suicide prevention. The extent in which guidelines are applied in practice is a question for further research. Experiences with the implementation of multidisciplinary guidelines for depression or anxiety show that this might be a difficult and slow process (Burgers, Cluzeau, Hunt & Grol, 2003, Verwey, van Waarde, van Rooij, Gerritsen, Zitman, 2007).

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Chapter 3

Suicides in users of mental health care services: treatment characteristics and hindsight reflections

Submitted as (adjusted version):

Suicides in users of mental health care services: treatment characteristics and hindsight reflections
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Suicide and Life-Threatening Behavior

Abstract

Objective: To describe the characteristics of suicides in mental health care services, and to establish what clinicians and mental health care services learned from these occurrences.

Methods: The patient and treatment characteristics of a sample of 505 suicide notifications sent to the Health Care Inspectorate (1996-2006) was studied, as well as the evaluations of the suicides by the clinicians involved.

Results: Of all 505 suicides, 55% were male, and 45% female. The main diagnoses were depressive disorders (43%), schizophrenia and other psychotic disorders (28%), and substance-related disorders (8%). the majority of these patients died by suicide when hospitalised in a mental health care service or within 3 months of discharge (54%). More than two thirds expressed suicidal ideation or behaviours in the two months preceding the suicide. For 23% of the patients, a no-suicide agreement was in place. In 26% of the 505 suicide notifications, the clinicians involved or the medical director reported that lessons were learned after the suicide. Most frequently, these lessons concerned improving communication among clinicians and continuity of care, improving suicide risk assessment procedures, and more involvement of relatives in the treatment and the use or adjustment of treatment guidelines.

Conclusions: Quality of care for suicidal patients could be improved by focusing on communication among clinicians, continuity of care, suicide risk assessment procedures and the involvement of relatives.

Introduction

Patients with mental disorders are more likely to die as a result of suicide (Bertolote et al., 2004, Harris & Barraclough, 1997). In order to identify the highest risk groups among those under treatment of mental health care services, additional risk factors influencing suicide rates have been studied extensively. Many patient-based risk factors are well established, but less is known about treatment-based risk factors for suicide (Appleby et al., 1999, Pirkis, Burgess, Jolley, 2002, Hawton et al., 2005a, Hawton et al., 2005b). Well-studied risk periods in mental health care treatment are the first weeks of admission to a psychiatric hospital and the first months after discharge (Qin & Nordentoft, 2005).

With regard to service delivery, a short stay in inpatient settings and poor continuity of care are associated with a higher risk for suicide, readmission within 6 months with a lower suicide risk (Desai et al., 2005). Non-compliance with treatment is a risk factor, at least for some patient groups (Hawton et al., 2005a, King et al., 2001). The organization of mental health care services may also influence suicide rates. In a nationwide study in Finland, community-based, multifaceted mental health services were associated with lower suicide rates than services that were oriented towards inpatient treatment provision (Pirkola et al., 2009). Adequate treatment of mental disorders can therefore contribute to suicide prevention.

Many national and international organizations have developed guidelines for the treatment of suicidal patients, to optimize the care provided and to promote prevention (APA, 2003, NICE, 2004). Another approach to optimizing care for suicidal patients is to study suicides that have occurred in mental health care patients, and to collect relevant patient and treatment characteristics. The best-known study in this respect is the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness in the UK (Appleby et al., 2006). The Confidential Inquiry identified several patient and treatment-based risk factors, and focuses, among other things, on suicide prevention in inpatient settings and after discharge, dual diagnoses treatment, and risk management. Information was also collected on clinicians' views on the preventability of suicides in mental health care. Improving compliance and adherence to treatment, earlier follow up after discharge from inpatient settings, and closer supervision in psychiatric wards could all lead to improved prevention (Appleby et al., 1999, Meehan, et al., 2006).

In the Netherlands, a supervision system for suicides in mental health care is intended for supervision of quality of care and to stimulate learning by clinicians and institutions. All suicides by patients under treatment must be reported to the Health Care Inspectorate and the care provided must be evaluated. The purpose of this procedure is to improve care for suicidal patients and ultimately to prevent suicides in mental health care. The current study aims to describe the patient and treatment characteristicsof these suicides, and to determine how clinicians, with hindsight, view the care provided and what they learned from these occurrences.

Method

Sample & data collection

Suicide notifications were obtained from the Health Care Inspectorate in the Netherlands, and all notifications sent to the inspectorate in the 1996-2006 period were identified (N=5483). 100 notifications were randomly selected for the 1996-2000 period and 200 for 2001-2005, with the restriction that an equal number of suicide notifications with and without a response by the inspectorate concerning the content of the notification were singled out. For 2006, the first 205 suicide notifications submitted that year were obtained. In all, 505 suicide notifications were studied.

A relatively large number of cases from recent years were examined, for the reason that they were most representative of the inspectorate's current procedures. Files from earlier years were studied to gain an insight into historical developments in the management of suicide notifications. For the exact description of the selection of files, we refer to Huisman, Robben & Kerkhof (2009).

For the extraction of relevant patient and treatment characteristics from the suicide notifications, a pen-and-paper instrument was constructed to assemble data. The variables studied were the patient's gender, age, nationality, suicide method, DSM diagnosis (including axis II diagnoses), treatment status (inpatient/outpatient, including whether a patient was discharged from inpatient care within 3 months of the suicide), category of treatment (individual, group treatment, etc.), number of lifetime psychiatric hospital admissions, duration of treatment in mental health care in years, non-compliance, status of admittance (voluntary/involuntary), prescription of and compliance with psychotropic medication, history of suicide attempts and ideation, family history of suicide, involvement of significant others in treatment, no-suicide contracting, and description of suicide risk assessment by the treating

clinician(s). In addition, since every suicide notification has to state whether there were points of improvement following the internal evaluation of mental health care provided before the suicide, this information was also collected systematically.

Analysis

The current study is primarily a descriptive study. Most patient and treatment characteristics were copied directly from the suicide notifications. The main analysis involves standard descriptive techniques of means and frequencies of responses. The description in the suicide notifications of life events preceding the suicides, the description of the suicide risk assessment and compliance of the patient, and the lessons learned after the evaluation of a suicide by the clinicians involved were analyzed qualitatively by the first and second author. The narrative information describing the relevant qualitative variables was assigned to different categories, in order to identify underlying themes. The overall, mean interrater reliability was r=0.94.

Results

Patient characteristics

Demographic and clinical characteristics of the suicides are described in Table 1. Of all 505 suicides, 55% were male, and 45% female, resulting in a ratio of men to women of 1.24:1. Most patients (68%) were between 30 and 60 years old: the mean age was 46 years. Regarding nationality, 456 patients were Dutch (90.3%), 12 South American (2.4%), 13 other European (2.6%), 11 Asian (2.2%), 10 African (2%) and 3 came from the Middle East (0.6%).

The main diagnoses were depressive disorders (43%), schizophrenia and other psychotic disorders (28%), and substance-related disorders (8%). 294 patients had no (n=15) or 1 diagnosis (n=279) on axis I (58%) and 211 had two or more (42%). At least 214 patients (42%) had a primary or secondary diagnosis of a personality disorder, of which the most prevalent were personality disorder not otherwise specified (23%) and borderline personality disorder (11%).

The majority of the current sample (94%) had a history of suicidal ideations and/or behavior. 215 patients (43%) expressed suicidal intent in the two months before the suicide, and 56% had attempted suicide at least once.

In the notifications, clinicians retrospectively reported life events they considered to be part of the etiology of the suicide (multiple events can play a role). When analyzing these (life) events preceding the suicide, results show that most frequently the severity of the psychiatric disorder was thought to have played a role (41% of the suicides), relational problems and separation were seen as a contributor in 101 suicides (20%), and for 98 patients (19%) personal loss experiences, such as loss of work, loss of independence as a result of the psychiatric disorder and other setbacks played a role. For 45 patients (9%), treatment factors were believed to have had an influence. Most frequently, this concerned matters such as the commencement of psychotropic medication in the month before the suicide (especially antidepressants) or changes in prescribed medication, loss of a familiar therapist and distrust or disappointment in the possibilities of mental health care treatment.

Table 1. Demographic and clinical characteristics of 505 users of mental health care services who died by suicide (1996-2006).

Characteristic	N	%
Gender		
Men	280	55
Women	225	45
Age		
15-20	11	2
21-30	58	12
31-40	113	22
41-50	134	27
51-60	95	19
>60	92	18
Unknown	2	<1
Suicide method		
Hanging	172	34
Self poisoning	95	19
Jumping in front of a train	86	17
Jumping from heights	73	15
Drowning	38	8
Firearms	7	1
Other	34	7

Characteristic	N	%
Clinical DSM diagnosis		
Axis I diagnosis		
Depressive disorder	218	43
Schizophrenia and other psychotic disorders	141	28
Bipolar disorder	36	7
Substance use disorder	41	8
Anxiety	22	4
Other	47	9
Co-morbid Axis I diagnosis		
Depression	54	11
Anxiety disorders	39	8
Alcohol addiction/abuse	49	10
Drugs addiction/abuse	61	12
Cognitive disorder	13	3
Other	54	11
Axis II diagnosis		
None	80	16
Diagnosis Deferred on Axis II	114	23
Personality disorder NOS	123	24
Borderline personality disorder	53	11
Other personality disorder	38	8
Any personality disorder	214	43
Unknown	97	19
Life time psychiatric hospital admissions		
None	85	17
Once	132	26
Twice or more	257	51
Unknown	31	6
Suicide history		
0 attempts	125	25
1 attempt	169	34
2 attempts	48	10
3 or more	67	13
unknown	96	19
Suicide attempt (1 or more)	284	56

Characteristic	N	%
Suicidal ideation/behavior within 2 months before the suicide		
Regularly	215	43
Incidentally	128	25
None	121	24
Unknown	41	8
(regularly or incidentally)	343	68
Family history of suicide		
Family history	55	11
No family history	93	18
Unknown	384	76

Treatment characteristics

For an overview of treatment characteristics, see Table 2. Most patients who died by suicide received mental health care for a relatively long time: 137 (27%) received treatment for between 1 and 5 years, and 229 (45%) for 5 years or longer. The remaining 27% had had treatment for less than a year.Of those, 36 patients (7%) had just started their treatment and were still in the initial registration period.

The majority of patients had had individual contacts or therapy (458, 91%). Furthermore, 51 patients had had group therapy (10%), 41 family or partner therapy (8%) and 84 (17%) other forms of treatment, such as occupational therapy.

351 of the suicides were outpatients (70%) and 154 inpatients (30%). Of the 351 outpatients, 117 (33%) had been discharged from inpatient care within the three months before their suicide. Furthermore, 27 (18%) inpatients were re-admitted in the three months before the suicide. Of all recently discharged patients (144), 50 patients (35%) had left treatment against the advice of the treating clinician.

Approximately 85 (17%) of the 505 patients did not comply with their treatment. They declined contact with mental health care workers, disrespected basic rules in inpatient settings or were hospitalized involuntary. Furthermore, 179 (35%) of the patients were partially compliant, i.e. regularly missed appointments, refused in-patient care which was recommended by clinicians involved or refused to take prescribed medication.

38 patients (8%) were under involuntary treatment when they died by suicide (usually in an inpatient treatment setting), and for 12 patients, involuntary treatment status had ended in the three months before the suicide. For an additional 84 patients

(17%), involuntary treatment was considered by the clinician involved, but was not granted or was not applied for.

In 297 suicide cases, suicidal impulses were discussed explicitly with the patient. With 47 patients, this was done more implicitly. 16 patients denied being suicidal. With 66 patients (13%), suicidal impulses were not discussed, and for 79 patients, this information could not be retrieved from the notification.

In 70 suicide notifications (14%) a complete suicide risk assessment was described, where protective and risk factors were taken into account, and suicidal impulses were discussed regularly with the patient. In 68% (n=344) the risk assessment was incomplete and brief, and these notifications merely reported that the suicide was completely unexpected. In 18% of the notifications (n=91),risk assessment was not mentioned at all.

The therapists involved made no-suicide agreements with116 patients (23%).

See Table 2 for the use of medication in the three months before the suicide. At least 79 patients (19%) were not compliant with prescribed medication.

Concerning the involvement of family members and other significant others in the treatment, family members were involved in the treatment of suicidality with 133 patients. For 112 patients, family members were involved in the treatment, but it remained unclear from the notification whether suicidal impulses were discussed with relatives. For 260 patients, it was unknown whether family members were involved, or this was not possible.

In 34 suicides (7%), family members or significant others were aware that the patient was planning to commit suicide. Furthermore, in 82 suicides (16%), relatives observed signals from the patient announcing a possible imminent suicide. For 120 patients (24%), the suicide was unexpected for the family, even thought the patient had been suicidal in the past. For the relatives of 100 patients (20%), the suicide was completely unexpected. 12 patients had no family members (2%), and for 157 patients, the suicide notification did not show whether the suicide was unexpected (31%).

For the majority of patients, help was offered to the bereaved family by the clinicians involved (452, 90%). For 5 patients, this was not the case and for 44 patients, this is unknown.

Table 2. Treatment characteristics of 505 users of mental health care services who died by suicide (1996-2006).

Characteristic	N	%
Treatment status		
Outpatients	351	70%
Inpatients	154	30%
Discharged from inpatient care		
in the three months before the suicide	117	33%
Re-admitted in this period	27	18%
Type of treatment		
Individual contacts/therapy	458	91%.
Group therapy	51	10%
Systemic therapy	41	8%
Other	84	17%
No treatment	21	4%
Duration of treatment in mental health care		
Less than a year	139	27%,
Still in initial registration period	36	7%
Between 1 to 5 years	137	27%
5 years or longer	229	45%
Compliance		
Non-compliant	85	17%
Partially compliant	179	35%
Involuntary treatment	38	8%
Involuntary treatment status had ended		
In the tree months before the suicide	12	2%
Involuntary treatment was considered	84	17%
Prescribed medication		
Antipsychotics	247	49%
Mood stabilizers	51	10%
Antidepressants	270	53%
Benzodiazepines	266	53%
Other (Acamprosate, Methylphenidate, Methadone etc)	79	16%
No medication prescribed	37	7%
Unknown	28	6%

Characteristic	N	%
Risk assessment		
Complete suicide risk assessment was reported	70	14%
Risk assessment was incomplete and very brief	344	68%
No mention of risk assessment	91	18%.
No-suicide agreement	116	23%

Hindsight reflections on mental health care provided

In 132 (26%) suicide notifications, the therapists involved or the medical director reported that lessons were learned from the suicides or that policy changes had been installed. In 14 of these notifications (11%), the mental health care service stated that in retrospect, the management of the patient should have been handled differently, but no policy changes were discussed. 106 notifications contained actual implications for the improvement of future mental health care practices. 4 main themes in these learning points could be distinguished (see Table 3 for quotes):

- Better communication and continuity of care (52 notifications, 39% of 106)
  - Mental health institutions intended to improve communication and collaboration between the different mental health workers involved with a patient, or with general practitioners and other medical staff.
  - Measures were taken to improve the transfer patient files or information between inpatient care and the subsequent ambulatory health services (so that information did not get lost or transferred too late).
  - New colleagues (therapists) should be made aware of all treatment procedures as soon as possible.
  - The responsibility for suicide risk assessment and management should be shared with a clinician's team or the responsible psychiatrist.
  - When a patient breaks off contact or does not turn up for appointments, the clinician involved should contact the patient and offer help on several occasions.
- Better suicide risk assessment (n=32, 24%);
  - Mental health services frequently stated that in the future, clinicians should be more alert to suicidality and actively ask about suicidal ideations thoroughly, even if suicidal impulses were of topical interest for this patient only in the past. Also, if a patient has suicidal thoughts, this should receive more attention

  in the treatment and the therapist responsible should consult other clinicians more often.
  - Recommendations concerning the involvement of the patients' relatives in risk assessment generally underline the diagnostic importance of information provided by significant others about a patient's suicidal impulses.
- Better involvement of relatives (n=16, 12%)
  - Relatives should be involved more intensively and in a comprehensive way in the treatment and crisis management. Also, the importance of clear communication and arrangements with the family is underlined.
- Better guidelines (n=15, 11%)
  - Mental health institutions plan to set up guidelines for the treatment and management of suicidal patients to improve their standards of care. In addition, they (occasionally) intend to provide in-service training to improve therapists' skills in risk assessment and management of suicidality (and to cope with struggles regarding the meaning of life).

For 12 notifications (9%), the lessons learned concerned the procedures and aftercare subsequent to the suicide, mostly after an inpatient suicide, such as "clinicians should discuss suicides in a private manner, so that fellow patients in an inpatient setting will not immediately notice that a suicide has taken place (and that the news can be conveyed at an appropriate moment)", or "family members should not check up on a patient that has left a ward unannounced". Other lessons concerning the procedures after a suicide were that more consideration was thought to be necessary for clinicians or fellow patients who discovered a suicide. Also, aftercare for family members and improving communication with the family of the deceased patient was a point for attention in some suicide notifications.

Table 3. Illustrations of lessons learned from suicides

The management of the patient should have been handled differently (n=14):

"We wonder if a more protective attitude would have been better, the patient might have been psychotic"

"It would have been better if we would have hospitalized the patient, and had not trusted the crisis plans and agreements".

Lessons learned concerning the procedures and aftercare subsequent to the suicide (n=12):

"We should not ask family members to check on patients that have gone on an unannounced leave. The therapists involved should have gone to the patient's home themselves, so that the family would not have been confronted with the suicide."

Better communication and continuity of care (n=52):

" When a patient is to be discharged from the clinic, it is better to start outpatient treatment during admittance".

"Patient information is not transferred from an inpatient setting to outpatient treatment in a direct way, thus information gets lost and the letter of discharge arrives too late."

"There should be more consultation between different clinicians/disciplines about patients, and patients should have an appointment with a psychiatrist in an earlier stage."

"If a patient is discharged, it is important to make arrangements about crisis situations."

"It is important to check up on patients in a more active way"

Better suicide risk assessment (n=32)

"It is important to take thoughts about death seriously, even when a patient rarely talks about this subject. "

"It was not sufficient to rely on patient's verbal behavior, it was necessary to ask frequently about suicidal ideation, irrespective of behavior and state, according to international guidelines, especially when a patient is dismissed from inpatient care." "Risk factors that are risk enhancing should be considered in treatment."

Better involvement of relatives (n=16):

"We should ask family members not to leave patients who have "trial" leave from the clinic. We should have said explicitly that when there are behavioral changes family members can call the clinic for consultation".

"It is important to talk to a patient's significant others at an earlier stage".

Better guidelines (n=15):

"We will develop a guideline for suicide prevention for new employees."

"We have updated our guidelines on crisis and suicide risk assessment."

Discussion

The purpose of this paper was to gather relevant patient and treatment characteristics of suicides by mental health care patients and to collect hindsight reflections by clinicians involved, in order to examine implications for mental health care provision. The most recent research comparable to this study is the National Confidential Inquiry Into Suicide and Homicide by People With Mental Illness in the UK by Appleby et al. (2006) and a clinical audit held in Victoria, Australia by Burgess, Pirkis, Morton & Croke (2000). The current sample of patients is, however, different from these two studies. Only patients who were under actual treatment were included, compared to patients who were in treatment up until a year before the suicide (Appleby et al., 2006), or persons with a history of public sector psychiatric service use (Burgess et al., 2000). One notable point is that the proportion of suicides under treatment of mental health care services is relatively high in the Netherlands (41% in 2008), compared to 25% in the UK and 24% in Australia. A possible explanation could be that the life-time rate of consultation for emotional or mental health problems is relatively high in the Netherlands compared to other European countries (Kovess-Masfety et al., 2007) and Australia.

Results of the current study show that the suicides reported to the inspectorate in the 1996-2006 period concerned mental health patients with relatively severe and chronic psychiatric disorders, who received psychiatric care over an extensive period of time.

Regarding patient characteristics, it is notable that the ratio of men to woman is 1.24:1, which seems to imply that gender differences are less distinct compared to the distribution in the general Dutch population (ratio of men compared to women is 2:1). In 2007, 44% of the adult population of mental health care services were males, and 56% females.

Concerning the treatment characteristics of the sample, some of the results are quite remarkable. For 23% of the patients, a no-suicide agreement was in place. The use of 'no suicide' contracts was recently discussed by the inspectorate (de Vries et al., 2008), since its effectiveness is debatable. Furthermore, it is remarkable that a full suicide risk assessment was described in only 14% of the notifications, which could indicate that risk assessment, on the basis of risk and protective factors, was not a common practice in the mental health care field in 1996-2006.

Compared to the general population of mental health patients in the Netherlands, inpatients and recently discharged patients were over-represented in the current sample (GGZ NL, 2003, Appleby et al., 1999). More than half of the suicides were either inpatients or patients discharged from clinical care within three months before the suicide. Not surprisingly, lessons from evaluations of the suicides by clinicians most frequently concentrated on continuity of care after inpatient care and communication between mental health care workers involved with a patient. This could suggest that this area requires the most attention for the improvement of mental health care quality. Improving continuity of care after hospitalization and optimizing communication between several settings and disciplines involved with a patient might have the highest impact on suicide rates in mental health care patients. The significance of continuity of care and communication is also stressed by Appleby and associates (2006) and by Burgess et al. (2000).

Other significant results of the current study are the rates of non-compliance found in the sample. More than half of all 505 suicides (52%) were non-compliant or only partially compliant. Other studies confirm that lack of adherence to treatment is a risk factor among mental health care patients (Hawton et al., 2005b, Muller-Oerlinghausen, 1992). Consequently, this stresses the importance of policies and interventions on non-compliance and assertive community treatment (Dekker et al., 2002) or community mental health team management (Simmonds, Coid, Joseph, Marriott and Tyrer, 2001).

Limitations

There are several limitations to this study. First of all, the pen and paper questionnaire used in this study has not been validated. Most items concerned factual information that was copied directly from the suicide notifications. However, the quality and comprehensiveness of different suicide notifications varied and older notifications tended to contain less detailed information. Furthermore, this research is based on the accuracy of the information provided in the suicide notifications. It cannot be ruled out that, as a result of possible defensiveness of the clinicians writing suicide notifications, some information provided is less reliable, in particular the critical evaluation of care in the period before the suicide, the suicide risk assessment and the severity of suicidal intent by the patient. Also, the outcome of the evaluations and retrospective reflections could be biased in the light of the suicide. Furthermore, this study is not a case control study. Consequently, no conclusions can be drawn

concerning risk factors for suicide in mental health care patients or about causal influences of patient and treatment characteristics on the suicide.

Mental health services reported plans to improve their mental health care as a result of the suicide in approximately a quarter of the notifications. In the rest of cases, no possibilities for suicide prevention were deemed possible or reported. In the light of interviews held with notifiers (Chapter 5), it is possible that the points of learning reported here are not a complete reflection or are not representative, because not all clinicians feel secure enough to openly report self critical remarks on care provided. Additional research is needed to address these issues.

A strength of the current study is the relatively large sample of suicides in mental health care, unique data that can only be derived from suicide notifications to the inspectorate, and the possibility of providing an overview of characteristics and learning points after a suicide, so that recommendations can be made for optimalizing suicide prevention strategies.

Recommendations

Based on the current results, we suggest that measures to improve quality of care for suicidal patients should focus on the organization of care, ensuring continuity of care and optimal transfer of information. Clear standards for the assessment of suicide risk should be implemented more widely, as should policies on no-suicide contracting, management of non-compliance and stronger involvement of relatives in the treatment of suicidal patients.

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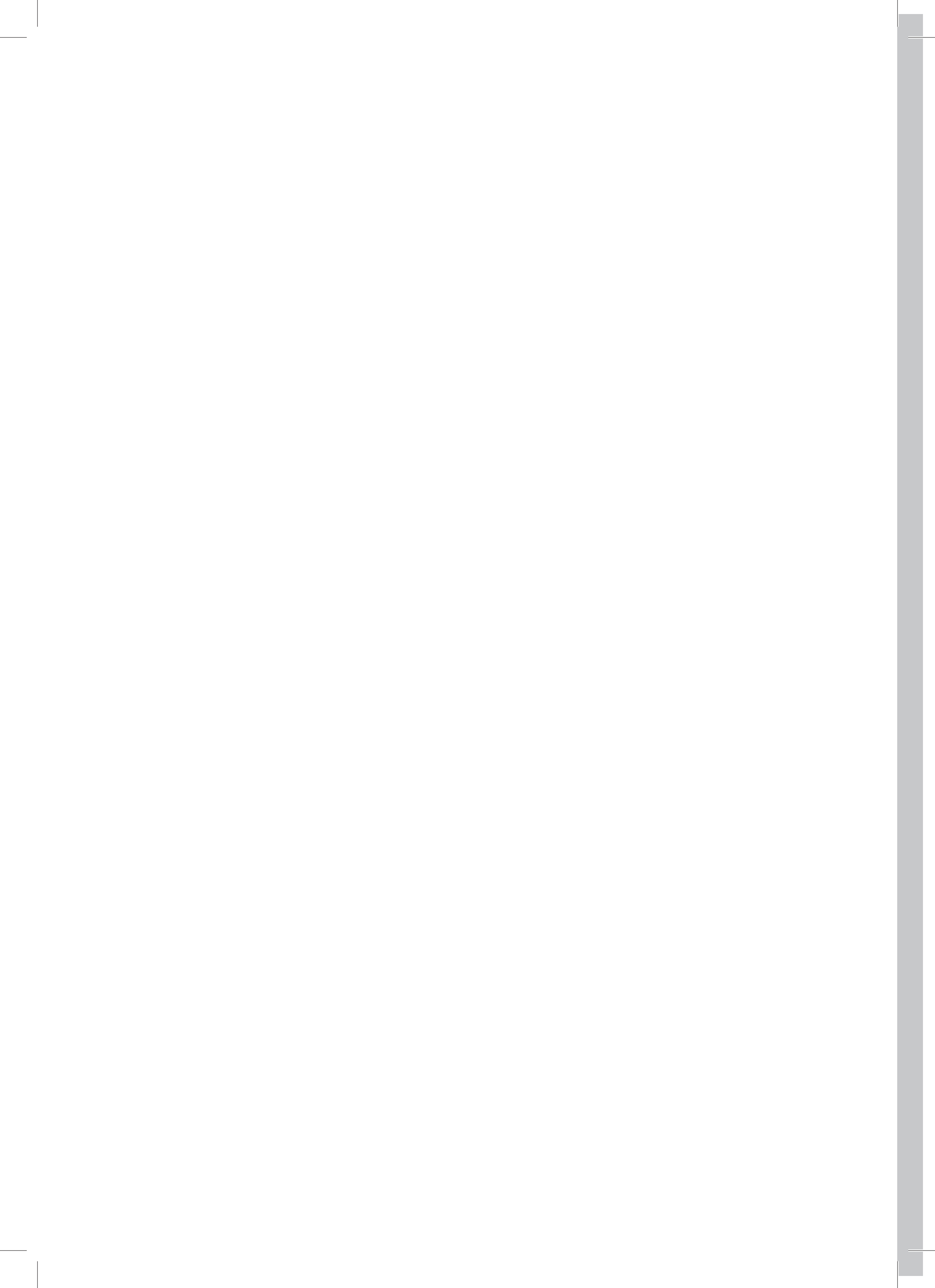
Part II

The procedure: supervision on suicides in mental health care services



Chapter 4

An Examination of the Dutch Health Care Inspectorate's Supervision System for Suicides of Mental Health Care Users

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Abstract

Objective: To describe suicide notifications from mental health care services to the Dutch Health Care Inspectorate and characteristics of the responses of the inspectorate to these notifications over the period 1996-2006; and to compare the focus of these responses with guidelines for the treatment of suicidal patients, in order to reflect on potential improvements in supervision.

Methods: A sample of 505 suicide notifications was studied regarding patient and treatment characteristics, as well as regarding the responses made to these suicide notifications by the inspectorate over the period 1996-2006.

Results: In 2006 the inspectorate responded to 38% of the suicide notifications. The responses most frequently concerned the evaluation of the care provided and the adequate treatment of the psychiatric disorder. Inspectors tended to react more frequently when notifications involved young patients, patients who had been treated in mental health care settings for less than a year, and when the mental health institution formulated points of improvement in their policies. When a patient had been discharged from inpatient care in the 3 months preceding the suicide, the inspectorate tended to react less frequently. In recent years, the Health Care Inspectorate has emphasized more frequently the significance of suicide risk assessment in their responses to suicide notifications.

Conclusions: Possible improvements in the suicide notification procedure are: greater emphasis on the specific treatment of suicidal impulses, more attention for the treatment of older, chronically suicidal patients and for suicides which occur in the first months after discharge from inpatient care.

Introduction

Several studies have shown that suicide and mental illness are closely linked (Bertolote, Fleischmann, De Leo, et al., 2004). Consequently, psychiatric patients are a priority group in several national suicide prevention strategies in various countries (Department of Health, 2002, US Department of Health and Human Services, 2001), but only a small number of studies have examined the clinical care that psychiatric patients received prior to their suicide. Audits in the U.K. and Australia (Appleby, Shaw, Amos, et al., 1999, Burgess, Pirkis, Morton et al., 2000) obtained several treatment-based risk factors for suicide in users of mental health services, including inadequate assessment and treatment of psychiatric disorders and psychosocial problems, difficulties with inpatient observation and poor continuity of care. Around twenty percent of these suicides in mental health care were considered to be preventable (Appleby et al., 1999, Burgess et al., 2000).

The Netherlands is one of the few European countries with a continuous national supervision and audit procedure for suicides in mental health care, operating since 1984. Whenever a suicide in mental health care occurs, the therapist responsible for the patient and the medical director have to write a notification to the Health Care Inspectorate, which is an independent organization under the Minister of Health, Welfare and Sport (Health Care Inspectorate, 2007). The notification has to include details of the suicide and the health care delivered, as well as an evaluation of policies in dealing with suicidal patients. The inspector can ask for more information and in some cases may require the health care service to improve the care they offer to (suicidal) patients. In general, the aim of this procedure is not to evaluate individual suicide notifications, but to identify structural problems in mental health care services. Some 550 suicide notifications per year are involved, which constitutes 36% of all suicides annually in the Netherlands.

The supervision system by the inspectorate is a measure to improve the quality of care for suicidal patients and ultimately to prevent suicide. However, its effectiveness has never been evaluated. The current study is a preliminary step towards this evaluation, and its aim is to describe the management of suicide notifications by the inspectorate and to compare their responses with recent guidelines for suicide prevention (APA, 2003) in order to provide feedback on potential improvements. Additionally, changes in the manner in which the inspectorate has responded to

suicide notifications over time will be studied. The results will be used in further studies to assess the impact of the supervision by the inspectorate.

Methods

Suicide files were made available by the Health Care Inspectorate for the period 1996-2006. All suicide notifications from this period were identified (N= 5483) and a total of 505 suicide notifications were selected. Over the period 1996-2000, 100 files were selected, for 2001-2005 200 files. For 2006, the first 205 suicide notifications which came in that year were gathered. A relatively large number of cases from recent years have been examined, since these are considered to be most representative of the current procedures of the inspectorate. Files from earlier years have been studied to gain insight in historical developments in the management of suicide notifications.

Over the period 1996-2005, an equal number of suicide notifications with and without a response from the inspectorate were randomly selected. A "response" was defined as further questions, remarks or suggestions by the inspector after the initial notification, or a personal conversation with the notifier. "No response" was a simple letter from the inspectorate acknowledging the receipt of the notification with no further questions or remarks.

In total, 227 suicide notifications had a response from the inspectorate and 278 notifications had no further questions by the inspectorate. The selection of notifications has been conducted in this manner in order to compare cases with and without a response and to determine which patient or treatment characteristics inspectors responded to more frequently.

A pen and paper instrument was used to collect relevant characteristics, including patients' demographics and the responses of the inspectorate.

Responses to suicide notifications by inspectors were examined both quantitatively and qualitatively. The nature of the response was classified in four categories; "additional questions", "remarks or suggestions for improvement", "further contact with the mental health service or other involved services" and "no further inquiry". Furthermore, all responses were subjected to a detailed qualitative analysis, facilitated by ATLAS/ti. An open coding scheme was derived from the questions and remarks from the inspectors, and every response was assigned a preliminary code independently by the first two authors. The codes were further refined, and a clear definition was generated for each, until a comprehensive coding scheme was created

which reflected the responses well. Using this comprehensive coding scheme, each of the responses was reviewed independently by the second author, and inconsistencies in coding were discussed until agreement was reached.

Subsequently, the responses of the inspectorate to suicide notifications were compared with the APA's "Practice Guideline for the Assessment and Treatment of Patients with Suicidal Behaviors" (2003), to establish whether they are in line with each other. The most important viewpoints of the APA are considered to be: frequent suicide risk assessments on the basis of protective and risk factors, treatment planning to reduce the suicide risk, continuity of care, and a restrained use of no-suicide contracts.

Statistical analyses

The relationship between characteristics of the suicide notifications and the likelihood of a response by the inspectorate was examined by cross-classifying whether the inspectorate responded or not to patient and treatment variables (age, gender, diagnosis, suicide method, inpatient versus outpatient status, discharge from inpatient care, duration of treatment, warning signals of suicide, discussion of suicidality with the therapist, lessons learned as a result from the suicide). Chi-square tests were computed on that distribution, and the significance threshold was set to 0.01 to compensate for the possibility of finding significance by chance when doing such a large number of comparisons.

To determine whether the management of suicide notifications by the inspectorate had changed over the period 1996-2006, responses from recent years (2002-2006) were compared with those from an earlier period (1996-2001), using chi-square tests as well.

Results

Patient characteristics

Demographic and clinical characteristics of the sample are listed in table 1. A typical patient was a middle aged male under ambulatory treatment, and diagnosed with depression.

Table 1. Demographic and clinical characteristics of 505 users of mental health care services who died by suicide (1996-2006)

Characteristic	N	%
Gender		
Male	280	55
Female	225	45
Age		
15-20	11	2
20-30	58	12
30-40	113	22
40-50	134	27
50-60	95	19
60+	92	18
Clinical DSM diagnosis		
primary axis I diagnosis		
Depressive disorder	218	43
Schizophrenia and other psychotic disorders	141	28
Manic-depression	36	7
Substance use disorder	41	8
alcohol	22	4
drugs	4	1
both	15	3
Anxiety disorder	22	4
Other	47	9
co-morbid secondary diagnosis substance abuse	81	16
alcohol	35	7
drugs	32	6
both	14	3
Treatment status		
Inpatient	154	30
Outpatient	351	70

Responses to suicide notifications

The responses to suicide notifications were classified in 4 categories (see table 2). Further investigation by the inspectorate was carried out in 227 of the 505 suicide notifications. This included 75 of the 205 notifications (38%) in 2006.

Table 2. Responses to suicide notifications

Response category	N	%
No further inquiry	278	55
Additional information requested	104	21
Remarks or suggestions for improvement	106	21
Contact or discussion with therapist, medical director or services involved	17	3
Total	505	100

Qualitative analysis of reactions to suicide notifications

The focus of responses by the inspectorate to the suicide notifications was classified in 13 broad categories (see table 3), which will be discussed below:

Table 3. Focus of responses by the inspectorate in 1996-2006

Subject matter	N	% out of 227
Evaluation of the suicide	135	60
Treatment of the psychiatric disorder	86	38
Treatment guidelines	82	36
Collaboration with other practitioners or services	66	29
Suicide risk assessment	62	27
Medication	61	27
Psychiatric assessment	40	18
Continuity of care	33	15
Involvement of the patient's family in the treatment	33	15
Treatment of suicidality	32	14
Role of the psychiatrist	27	12
Aftercare for relatives	15	7
Non-compliance and involuntary hospitalization.	15	7

Most frequently, questions or remarks concerned evaluation of the care provided to the patient. The most common question in this respect was: "has the suicide been evaluated and what were the results of the evaluation?" Other frequently asked questions involved the (adequate) treatment of the psychiatric disorder. Responses concerned the nature, purpose and progress of the treatment. Moreover, questions were asked regarding the clinician's decisions about appropriate treatment settings.

The importance of adherence to treatment guidelines was stressed by the inspectorate in 36% of the responses. The responses often contained questions about the presence and adherence to treatment guidelines for psychiatric disorders or the assessment and treatment of suicidal patients. If the notification concerned an inpatient, questions were asked about policies on safety, privileges and monitoring.

Furthermore, in 29% and 15% of the responses respectively, questions or remarks about collaboration with other practitioners or services and continuity of care were observed. Frequently, this involved suicide notifications of patients who were recently discharged before their suicide, or had changed treatment setting. Responses were about the transfer of information and consultation between different therapists or services involved, and the frequency of aftercare appointments.

27% of the responses concerned suicide risk assessments. Most common were questions regarding if and how risk assessment took place, and whether suicidality was discussed periodically with the patient. Specific remarks concerning this subject considered the importance of communicating the suicide risk in the first weeks of using antidepressant medication to the patient; taking the expression of suicidal ideation or behavior seriously and communicating with other therapists involved about the suicide risk.

Questions about medication (27%) and psychiatric assessment (18%) were usually straightforward; what medication was prescribed or what was the psychiatric diagnosis according to the DSM? Other questions involved the results of complementary psycho-diagnostic assessment and the accuracy of the diagnoses or medication.

In 14% of the responses to the suicide notifications, questions and remarks specifically referred to the management of the suicidal impulses of the patient. Generally, this involved the question whether and how the therapist had managed this risk.

In 15% of cases, responses to suicide notification contained questions or remarks about the involvement of the patient's family and in 7% the aftercare of the bereaved relatives. The inspectorate stressed that mental health services have to involve the patient's family in the assessment and treatment of suicidal patients and must offer aftercare to the bereaved family after a suicide.

The significance of the role of the psychiatrist was emphasized in 12% of the notifications. In some cases the patient wasn't seen by a psychiatrist. In this connection, the inspectorate took the position that, especially in psychiatric or suicide

risk assessment and prescription of psycho-pharmaceutical drugs, a psychiatrist has to exercise responsibility and see patients personally.

In 7%, responses concerned the non-compliance of a patient and issues regarding involuntary hospitalization. In these cases, the patient usually refused mental health care or regularly missed appointments, which did not result in an active approach by the therapist. The inspectorate recommended in these cases that non-compliant patients must be approached more actively by mental health services. Other responses had to do with the question whether requesting involuntary hospitalization was considered and if it would have been better to have done so.

Critical remarks and suggestions for improvement

Criticism and remarks made by the inspectorate (106 notifications) can be summarized by: (1) the lack ofguidelines for suicide prevention, (2) the lack of sufficient continuity of care and collaboration between therapists involved, (3) insufficient involvement of the psychiatrist in the suicide risk assessment and prescription of medication, (4) inadequate assessment of suicide risk, (5) inadequate psychiatric treatment and psychiatric diagnoses and (6) insufficient attention to communication and signals from relatives of the patient.

Notification characteristics to which inspectors responded more and less frequently

Table 4 summarizes characteristics of the suicide notifications to which inspectors responded more often.

Developments in responses to suicide notifications over the period 1996-2006

In the period 2002-2006, inspectors tended to emphasize the significance of suicide risk assessment more often in comparison to the period 1996-2001. (37% vs 19%; χ^2=6.4, df=1, p=0.01). The content of the reactions about risk assessment seems to have changed as well. In earlier years, questions were simpler, and mainly concerned the issue whether the risk was assessed. In 2005-2006 questions were more elaborate and more often required a detailed assessment on the basis of risk factors for suicide. For all other variables (see table 3) no differences were found.

Table 4. Characteristics of notifications influencing inspector's responses

Notification characteristic	N responses when characteristic is present	(%) responses when characteristic is absent	N	(%)	χ^2	df	p
more frequent responses when:							
patient is under the age of 35 years	68	(52)	159	(43)	3.46	1	0.06
patient was treated in mental health care < a year	72	(53)	155	(42)	4.39	1	0.04
patient is still in an initial registra-							
tion procedure	24	(67)	203	(43)	7.39	1	0.01
fellow patients had had signals of an imminent suicide in the months before the suicide	13	(68)	214	(44)	4.40	1	0.04
unclear if suicidality was discussed with an patient	44	(57)	183	(43)	5.46	1	0.02
notification contained plans to improve the mental health care as a result of the suicide	76	(59)	151	(40)	14.41	1	0.00
less frequent responses when:							
the patient was discharged from inpatient care in the three months prove the mental health care as a before the suicide	54	(38)	173	(48)	4.52	1	0.03

Correlation of the inspectorate's responses with the APA guidelines

In general, the responses made by the inspectorate in the period 1996-2006 are in line with the APA guidelines. Adequate psychiatric treatment, cooperation with other therapists involved, continuity of care and providing aftercare for the bereaved family of the patient all were important aspects in the responses. In addition, responses concerning suicide risk assessment corresponded increasingly with the guidelines in the last few years.

However, the inspectorate addressed the use of no-suicide contracts only once in all 505 suicide notifications, although with 23% of the patients a no-suicide agreement was arranged, including patients who were diagnosed with a psychotic disorder, and highly impulsive or addicted patients.

Suicide notifications without a response

The 278 suicide notifications without a response from the inspectorate have been studied qualitatively to gain more insight into inspectors' considerations not to respond, and to determine if notifications without a response contain indications for structural problems in mental health care as well. From the perspective of the APA guidelines, possible signs of shortcomings in the mental health care provided could be observed, including:

– Incomplete or inadequate risk assessment

In 59 notifications without a response, therapists underestimated the risk of suicide in spite of the presence of several risk factors. Previous suicide attempts were labeled as "merely a cry for help" in 9 notifications and consequently the suicide risk was estimated to be low. In addition, in 9 cases mental health care workers were unaware of the suicidal history of a patient, or knew nothing about suicidal intent expressed to family members or fellow patients by the patient.

Other problems with risk assessment were that attentiveness to suicide risk had waned, especially with patients who had a history of (severe) suicidality but didn't report current suicidal ideation, and with patients who were chronically suicidal (n =15).

– Insufficient continuity and intensity of care

Continuity of care was not always adequate. At least 11 patients committed suicide while on a waiting list or in a registration procedure lasting several months despite

their severe psychiatric symptoms or crisis. Follow-up appointments after discharge from inpatient care could take weeks to months (n = 14). In 17 cases, the emergency services did not assess the suicide risk in time, or didn't make an appointment with the patient within a few days, and the patient committed suicide before being seen.

– *Unwarranted trust in no-suicide contracts*
In 28 notifications without a response, a no-suicide contract was arranged with a patient and the therapists involved considered the suicide risk to be reduced. The willingness to enter a contract was sufficient to transfer a patient to an open ward in 7 cases. Moreover, in at least 5 cases the arrangement of a no-suicide contract seemed to be the only safety measure taken, and no additional measures (such as more intensive care or a safety plan) were carried out.

– *Inadequate decisions about hospitalization*
In 14 notifications, patients in crisis weren't hospitalized, since this was thought to be risk enhancing, presumably as these patients had a personality disorder. In addition, 7 patients committed suicide while on a waiting list for admission.

– *Inadequate communication*
Inadequate communication between mental health care workers, especially about suicidality, could have led to insufficient transfer of information and suicide risk management in 19 notifications.

– *Insufficient monitoring of severely depressed or psychotic patients*
In 6 inpatient settings, patients were able to run away from a closed ward on repeated occasions.

– *Inadequate communication with the patient's family*
Relatives of a patient were sometimes unable to discuss their concerns regarding the suicidality of their relative with the therapists involved, or they were not involved in the treatment despite severe suicidality of the patient (n = 16).

Discussion

The current study was undertaken as a first step in a research program to evaluate the suicide notification procedure by the Health Care Inspectorate in the Netherlands. The results show that for 2006, approximately 38% of all mental health workers who reported a suicide received further questions or remarks from the inspectorate. Responses by inspectors were mostly focused on the thorough evaluation of circumstances and care surrounding the suicide. Another main point of interest to the inspectorate was the treatment of psychiatric disorders in the light of treatment guidelines. In recent years, the inspectorate more often stressed the importance of conducting suicide risk assessment, in line with APA guidelines.

The results indicate that some aspects of the notifications led to more and less frequent responses. Inspectors' responses were dependent upon the treatment status of the patient who died by suicide, and tended to depend upon the age of the patient and the time in treatment. When patients were young or at the beginning of their treatment, more responses tended to be given; and less when patients were recently discharged from inpatient care. This suggests that the inspectorate focuses especially on those patients and time periods for which efforts for suicide prevention are considered most effective. The opportunities for prevention of suicides among the old, the chronically ill, and in the post-discharge period were apparently considered less readily available both by the service providers and by the inspectors, although this latter period is widely recognized as a high risk episode for suicide (Huisman, Kerkhof, Robben, 2007). Maybe there are opportunities for more effective suicide prevention in this period, which the inspectorate might emphasize.

Inspectors tended to pay special attention to suicides where fellow patients had noticed signals of an imminent suicide in the months before the suicide, and when it was unclear if suicidality was discussed with the patient or had been treated as such. These aspects were apparently regarded as important considerations for suicide prevention. What is more, these outcomes could demonstrate the gradually growing awareness in the field and within the inspectorate that suicidal impulses need specific attention besides the usual treatment for psychiatric disorders. According to the APA guidelines, the inspectorate could further promote this development.

A notable result is that that the inspectorate responded only once to the use of no suicide contracts, although these were used in about one in five of the cases reviewed.

This included cases of addicted, psychotic or highly impulsive patients, which is discouraged by APA guidelines for the treatment of suicidal patients (APA, 2003).

The inspectorate responded more frequently when mental health institutions attached plans for improvement to their notification. In doing so the inspectorate both supported the intended improvements, as well as acknowledged the flaws in the mental health care delivery that the institutions admitted themselves. However, in some cases the inspectorate did not respond although the suicide notification contained indications of possible flaws in care delivery. In doing so the inspectorate seemed to neglect shortcomings. Moreover, inspectors did not respond to all notifications involving the same themes in the same manner, which suggests a somewhat arbitrary element.

In general, mental health care providers are afraid of disciplinary measures by the inspectorate, but the findings of this study reveal that, in cases of suicide notifications, such measures seldomly follow. In none of the 227 responses by the inspectorate to suicide notifications were disciplinary measures taken; and a small percentage (3%) of suicide notifications led to an extensive inquiry into a suicide case.

To summarize, opportunities for enhancing the review procedure by the inspectorate could be achieved by:

- more consistent supervision
- continuing emphasis on systematic suicide risk assessment
- more emphasis on the specific treatment of suicidal impulses
- more attention to the treatment of older, chronically suicidal patients and suicides which occur in the first months after discharge from inpatient care.
- more focus on a restrained use of non-suicide contracts

Limitations

The outcome of this study is dependent on the quality and comprehensiveness of suicide notifications. Additional research is in progress to evaluate these aspects (see Chapter 5).

The results of the qualitative analyses are based on the interpretations by the authors, given the criteria of the APA (2003), and therefore are not conclusive. In addition, a relatively large number of tests were conducted, so it is possible that some associations have been found by chance. Replication is needed to confirm the factors that distinguish between follow up versus no follow up by the inspectorate.

The notification procedure is meant to provide supervision of the quality of health care service delivery, and to improve the care for suicidal patients in the future. As such the inspectorate's procedure could be a powerful tool in promoting suicide prevention. Currently, further research is in progress (see Chapter 5) to study the influence of the suicide notification procedure on the quality of care in mental health services and the way mental health services evaluate the notification procedure.

Conclusions

The results of the current study indicate that supervision on suicides in mental health care can be optimized in line with guidelines for the treatment of suicidal patients. More attention by the inspectorate could be given to suicides which occur in the first months after discharge from inpatient care, to the specific treatment of suicidal impulses and to older, chronically suicidal patients.

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Chapter 5

The Dutch Supervision System for suicides in mental health care: evaluations by clinicians, medical directors and inspectors

Submitted as (adjusted version):

The Dutch Supervision System for suicides in mental health care: evaluations by clinicians, medical directors and inspectors
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Abstract

Aim: In several Scandinavian countries and the Netherlands, supervision of suicides in mental health care is intended to monitor and improve mental health care provision. This study aims to evaluate the effectiveness of this system as perceived by medical directors, clinicians and inspectors.

Methods: In-depth interviews with 30 clinicians who notified patient suicides, 28 mental health care directors and 15 inspectors were analyzed, using content analysis.

Results: Both medical directors and clinicians were ambivalent about the effectiveness of the procedure. They acknowledged the usefulness of external evaluation of the care provided to patients who died by suicide, but the main criticism of the procedure focused on the atmosphere of guilt and blame surrounding suicide notifications.

Conclusion: The inspectorate should issue clearer standards for the assessment of suicide notifications, and should focus less on individual notifications and more on structural problems in mental health care provision.

Introduction

A significant proportion of suicides received mental health care (Pirkis & Burgess, 1998, Luoma, Martin, Pearson, 2002). Several countries in Europe are trying to improve quality of mental health care by operating a form of supervision of suicides in mental health care, including the United Kingdom, Sweden, Denmark, Norway and the Netherlands.

In the Netherlands, suicides must be reported by the responsible clinician and the medical director of a mental health care service to the Health Care Inspectorate, an independent organization under the Minister of Health, Welfare and Sport. The inspectorate considers every suicide in mental health care as a calamity; an unintentional or unexpected event that leads to the death. A suicide notification must include details of the suicide, the mental health care delivered and an internal evaluation of policies in place for dealing with suicidal patients. Every suicide notification is examined by inspectors in terms of preventability and structural flaws in mental health care delivery that need improvement.

In this study, clinicians who had to notify the inspectorate of a patient suicide, mental health care directors and inspectors were asked to give their impressions and evaluations of the effectiveness of this procedure in improving care for suicidal patients, as well as suggestions for improving the executive functioning of the system.

Methods

Recruitment of participants

A random sample of 50 suicide notifications was taken from all suicide notifications to the inspectorate in 2006 (n=533), with a maximum of 2 suicide notifications per mental health service. Selected services (n=38) were sent a letter in which both the medical director of the institution and the therapist involved were invited to participate. Medical directors were included because they have to add their views on the necessity of policy changes to every suicide notification. They have an overview of all suicide notifications sent to the inspectorate in their service, and play an essential role in changing policies in dealing with suicidal clients. All inspectors dealing with suicide notifications were also asked to participate.

Three mental health care services refused to participate, due to lack of time, and at one institution, participation was not possible due to prolonged absence of the medical director. At four institutions, it was not possible to interview the clinicians who wrote a selected notification, either because they no longer worked at the institution, or due to lack of time. In 3 cases, the medical director was also the responsible therapist. The total number of participating mental health care services was 34, resulting in a response rate of 89%.

Procedure

Data were gathered through in-depth, open-ended interviews, conducted in the period from November 2007 to July 2008 (by the first and second author). Every interview was audio taped and transcribed, and usually took 45 to 60 minutes. Opportunities were made available for participants to express unsolicited opinions.

The participants were 30 clinicians and 28 mental health care directors of 34 mental health services, and 15 inspectors. The services were 28 large mental health care institutions, 2 services for addiction, 2 psychiatric wards of general hospitals, and 2 private practices. The annual number of suicide notifications of the mental health care services to the inspectorate ranged from 1 for private practices to 40 in large mental health care institutions (with large catchment areas). The specific professions of the clinicians were psychiatrist (n=15), medical doctor specialized in addiction (n=1), mental health nurse (n=9) and psychologist (n=6). All 15 inspectors who dealt with suicide notifications were interviewed. They had worked as inspectors for between 0.5 and 10 years. Their backgrounds were in psychiatry (4), psychology (2), (mental health care) nursing (6) and other fields (3).

Data analysis

This study used the qualitative research method of content analysis. Transcribed interviews were read (by first and second author) and participants' views regarding the suicide notification procedure were identified and encoded. Code categories were then compared within and between interviews. Similar issues were grouped under 1 overarching domain label and the data were re-coded by domain. This process was conducted by authors 1 and 2 until agreement was reached. No discord between codings were found during this process.

Results

Interviews with clinicians who reported suicides, concerningactual cases (n=30)
Most of the clinicians interviewed regarded the supervision procedure as valid and useful (n=26, 87%). Supervision of quality of care was usually seen as the key function of the suicide notification system. The inspectorate has to detect and subsequently address malpractice in mental health care. In addition, the fact that clinicians must report to the inspectorate emphasizes the importance of evaluation after a suicide, which was seen as valuable by all the clinicians interviewed. Furthermore, writing a suicide notification can have a therapeutic effect in coping with the suicide, and discussing the suicide with colleagues afterwards was also seen as helpful. However, for 17 clinicians (57%), the notification procedure added stress to other difficulties in dealing with a patient's suicide. Some were anxious about having made mistakes in the treatment and feared criticism.If the inspectorate asked several questions after a suicide, this was perceived as criticism (n=6, 20%). In addition, several clinicians noted that inspectors had too little involvement with caregivers who provide care for suicidal patients (n=5, 16%). Sometimes, questions posed by inspectors were experienced as too detailed or based on unrealistic assumptions.

If no follow-up by the inspectorate took place after a suicide notification, this was a relief to some clinicians, or was perceived as a confirmation of good practice (n=8, 27%). It is notable that 4 clinicians were not aware that the inspectorate had asked further questions. Apparently, they were not informed by the medical director.

Most clinicians were ambivalent about the usefulness of the procedure in contributing to major changes in daily practice and suicide prevention (n=28, 93%). Evaluation of a suicide can, in some cases, lead to adjustments or changes in policies. On the other hand, none of the clinicians interviewed thought the suicide of their patients could have been prevented. In general, most stated that it is difficult to prevent suicides within mental health care services. Criticism by inspectors can be counterproductive, leading to defensive practices which are not always in the best interests of suicidal patients. Since the suicide notification system has been operating for decades, prolongation might not be necessary any longer. Some clinicians saw it as excessively formal and experienced little constructive feedback from the inspectorate.

All clinicians stated that they were truthful in writing their notifications, although writing is usually a careful, strategic or defensive exercise. A frequent comment in this respect was that dishonesty would be detected in the case of prosecution.

Suggestions from clinicians for the improvement of the procedure were:
- More empathy for clinicians who experienced a patient's suicide. Remarks by the inspectorate should be realistic and not patronizing.
- Some wanted the inspectorate to give more feedback and advice on the treatment of suicidal patients, although some explicitly did not see this as a task of the inspectorate.
- There should be no tendency to take legal action against individual therapists.
- The inspectorate must also improve the circumstances in which clinicians have to work (shortage of psychiatrists, work pressure etc).
- More clarity about role of the inspectorate and the possible consequences of notification is desirable.

Interviews with medical directors (n=28)

All medical directors agreed that in general, it is important to critically reflect on the performance and care provided before a suicide, and to examine whether policy improvements are necessary. The value of evaluation of a suicide by the clinicians involved was considered to be more important than external investigation by the inspectorate. An internal evaluation can lead to several policy improvements, such as improved continuity of care or suicide risk assessment procedures. All but one of the directors (n=27, 96%) valued the inspectorate in supervising this self-critical process and quality of care as an external independent supervisory authority. For the majority, the necessity and usefulness of reporting suicides was not in debate. The advantages of the procedure, as perceived by medical directors, were that the procedure underlines the importance of suicide prevention and keeps both medical directors and clinicians alert to this issue (n=23, 85%). The need to account for the mental health care provided ensures that policies regarding suicidal patients are thought through. In this context, most mental health institutions (n=23, 85%) had developed or were developing guidelines for the treatment of suicidal patients, as requested by the inspectorate.

Other advantages of the procedure can be the critical remarks and questions posed by the inspectorate as a result of a suicide notification (n=17, 63%). These questions and remarks keep medical directors and clinicians focused, stimulate self-critical thinking, and some discussions about certain aspects of treatment can lead to new insights. In this context, most directors appreciate the focus of the inspectorate

on suicide risk assessment, continuity of care and involvement of family members in the treatment of suicidal patients.

Furthermore, some medical directors (n=7, 26%) noted that they can use the authority of the inspectorate to enforce changes in the daily practices of their personnel more easily, or to improve collaboration with other mental health care institutions with reference to the inspectorate's demands.

There were several points of criticism regarding the current execution of the notification procedure. 13 directors (42%) argued that suicide should not be considered a calamity. For them, a calamity is associated with the quality of mental health care provided, and implies that all suicides are basically preventable. However, analogous to somatic care, where not all deaths can be prevented, not all suicides are preventable in mental health care. It is argued that either the label 'calamity', implying insufficient quality of care, has to be changed, or that only preventable suicides, caused by failing mental health care, should be reported to the inspectorate.

Another point of criticism involved the manner in which questions were posed by inspectors. A patient's suicide frequently raises feelings of guilt in the treating clinician, and this makes the subject very sensitive. The way questions are formulated influences whether or not clinicians will react defensively. The majority of directors (n=18, 67%) noted that questions were formulated in such a way that clinicians felt criticized or persecuted. Some questioning methods also seemed to imply that the suicide should have been prevented, for example, if "proper" risk assessment had taken place. The way in which the questions were posed could also give the impression that the inspectorate wants clinicians to work with more restrictive measures. Sometimes, the sheer number of questions seemed to imply unexpressed criticism. In addition, some questions were perceived to be too detailed, irrelevant or conceived by people who were not familiar with daily practice in mental health care.

Frequently, there were disagreements with the inspectorate about critical aspects of treating suicidal patients. Several medical directors (n=15, 56%) pointed out that, in contrast to the importance that the inspectorate attaches to systematic risk assessment, there is no valid way of performing a suicide risk assessment, and that it is impossible to predict whether a patient is going to die by suicide. Thus, some medical directors felt that they were sometimes expected to adhere to impossible demands. Another point of disagreement concerned the responsibilities of psychiatrists in risk assessment: does a psychiatrist have to see every patient with suicidal ideation, at every stage of the treatment? In many settings, this is not feasible.

Although some directors were opposed to the use of 'no suicide' contracts, those in favor (n=7, 26%) disagreed with the inspectorate about their critical remarks, since there is no conclusive evidence contradicting their efficacy. Another point of disagreement was that some directors (n=8, 30%) do not want to work in a defensive and restrictive manner with suicidal patients, although in their view, the inspectorate is fostering this.

Regarding the impact of the procedure, most directors (n=27) did not believe that the inspectorate has a clear influence on the content of policies, although many directors think this is not the responsibility of the inspectorate. Involvement, however, and face to face contact with inspectors is highly appreciated and valued, as it affords the possibility to discuss difficult patients, aspects of treatment and the standards of the inspectorate. It is regretted that personal contact with inspectors has decreased in recent years and that communication is mainly in writing. Some directors (n=4) noted that it could take months before they received a response after sending a notification. Especially in institutions where few notifications are followed up, the procedure is considered to be a formality.

Two directors did not see the added value of individual suicide notifications, since this seems to imply that individual clinicians can be persecuted, although the main purpose of the procedure is to detect structural problems in mental health care provision. In addition, some would value the evaluation of mental health care after a suicide whether the inspectorate was involved or not, and felt that reporting does not add to the quality of care.

Another topic raised in the interviews was that mental health care directors would like to receive more information about patient and treatment characteristics with regard to all suicides that occur in all mental health care institutions each year (n=8, 30%). Several directors have evaluated all suicides in their institutions over several years, but since these are small numbers, it is hard to draw conclusions. If the inspectorate could provide more systemic information and statistics about all suicides in mental health care, this could contribute to the quality of care.

A notable point is that the majority of directors are somewhat negative about the possibilities for mental health care institutions to prevent more suicides. Some consider it to be important that the inspectorate is realistic about suicide prevention and has more consideration for the impact of a suicide on clinicians.

Concerning the openness of notifications, all directors said that they were transparent and truthful in their reports, including when the quality of care might

not have been optimal. A comprehensible and open suicide notification is considered important to avoid unnecessary questions from the inspectorate. Possible exceptions may be when a clinician could be charged by the disciplinary board, or if reporting could force a director to change procedures that are difficult to change. In this respect, a court verdict (following a lawsuit in which a relative of the deceased requested insight in suicide notifications) that suicide notifications are public information, and that they can be used in court, meant that some directors (n=7) decided to discontinue notifications. The privacy of patients is, in this context, no longer ensured. The court's decision has now been revised, and suicide notifications are no longer available to the public, although they still can be used in lawsuits.

The directors interviewed gave the following suggestions for improvements:

- There is a need for more opportunities to discuss policies with inspectors. This is thought to be helpful, but at present, most discussion is handled in letters. In addition, the time it takes to receive a response to correspondence should be reduced.
- The inspectorate has to elucidate when suicides are considered to be preventable and under what circumstances a suicide implies insufficient quality of care provided.
- The inspectorate has to keep in touch with what is feasible in daily practice in mental health care. Realistic expectations by inspectors are important. They must focus on general treatment and processes and not on details.

Interviews with Inspectors (n=15)

Most inspectors agreed that it is difficult to judge suicide notifications uniformly, since the content differs considerably. In addition, there is no standard for assessing suicide notifications.

Important aspects are whether the treatment of a patient is described clearly and consistently, and whether treatment was according to existing norms and guidelines. In addition, the self-critical evaluation of care and events preceding a suicide, continuity of care and suicide risk assessment are considered to be important aspects of a notification. Some inspectors tend to focus more on the treatment that the patient received, and some focus more on procedures. The response rate of inspectors differed: some inspectors responded with further questions or remarks in about 25% of the cases, some to almost every notification. In one of the four regional offices, inspectors regularly wrote that the treatment as described in a notification was

considered to be adequate; most inspectors did this rarely, if ever. To improve the consistency of assessment and responses to suicide notifications, regular consultation meetings are held for all inspectors who deal with suicide notifications.

The advantages of the procedure are considered to be the attention given to suicide and suicide prevention. According to most inspectors, evaluating care provided before a suicide can be very effective, and important policy adjustments can follow after internal evaluation of the clinicians involved. In this process, the role of the medical director in initiating policy changes is considered to be crucial. The effect of the overall procedure on individual caregivers is seen as less significant. Also, it is unclear whether the learning effects are generalized to other departments or locations within a mental health care institution, and if policy changes would not be carried out without the notification procedure to the inspectorate.

Another perceived advantage of the suicide notification procedure is that services pay more attention to suicide prevention, and most of them have developed guidelines for suicide prevention in the last few years, following questions by the inspectorate. But according to some inspectors, more improvement is certainly possible in clinicians' awareness of suicidality and development of prevention strategies.

Another advantage of the procedure, as seen by inspectors, is that clinicians and institutions pay more attention to suicide risk assessment, and to better coordination of outpatient and clinical services of mental health care institutions. In addition, inspectors have discussed the validity of 'no suicide' contracting (de Vries, Huisman, Kerkhof, Robben, 2008).

All inspectors agreed that the advantages of the notification procedure are most evident in dealing with services that do not sufficiently evaluate their own policies in a self-critical way. Some inspectors (n=2) think that if basic conditions for critical self-reflection are met, such as a suicide committee which evaluates all suicides within the institute, the inspectorate provides no added value. Other inspectors think this will not be sufficient, since most institutions do not have a suicide prevention committee that can assist in critical and impartial evaluation and need external supervision. In addition, a suicide notification provides a detailed insight into daily practices in a mental health service, and is an excellent tool for supervision of quality of care.

When asked in what percentage of suicide notifications there was a relationship between the suicide and the quality of care provided, and whether the suicide might have been prevented, most inspectors found this difficult to approximate. Estimates range between none (clinicians cannot be blamed for a patient's suicide) or less than

1% up to 75% (the majority of suicides have a mental illness that is treatable). In this context, it has to be noted that in last 10 years, no individual clinician has been disciplined by the inspectorate following a suicide (in total, this concerns 5,483 suicide notifications).

As a result of the public nature of suicide notifications following the above court verdict, not only institutions, but also inspectors become more cautious in the wording of their notifications. Openness by the mental health care institutions is considered to be adequate, although some institutions write in a reserved or strategic manner.

Discussion

The current study was undertaken to examine evaluations by medical directors, clinicians and inspectors of the suicide notification system in the Netherlands. Results of the interviews indicate ambivalence among both medical directors and clinicians concerning the effectiveness of the procedure. The evaluation of events and care is unanimously positive. Critical evaluation of care provided before a suicide can, in some cases, lead to improvement of mental health care provision. The fact that the inspectorate supervises this process underlines the importance of suicide prevention and keeps both the medical directors and clinicians alert. Furthermore, the supervision system provides external monitoring of quality of care, ensuring detection of malfunctioning institutes or clinicians. Another positive aspect of the procedure is that the inspectorate has stimulated the development of policies on treatment of suicidal patients, although it remains unknown to which extent these policies have been implemented. A study rating the quality of guidelines for the management of suicidal patients in the Netherlands found that important aspects were missing in guidelines of some institutions, and that compliance with guidelines was monitored in only a third of the institutions (Verwey et al., 2007).

The main criticism of the procedure provided both by medical directors and clinicians concentrates on the atmosphere of guilt or blame surrounding suicides. The fact that the inspectorate considers a suicide as a ‘calamity’ and that the inspectorate assesses the quality of care provided for every suicide, seems to imply that a suicide is an important signal of inadequate quality of mental health care. In addition, some questions posed by the inspectorate after a suicide were experienced as criticism or blame. This sensitive nature of patient suicides is also described in The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness

(Appleby et al., 2006). It is apparently essential to underline that a suicide does not imply the failure of a therapy or therapist if clinicians are to be willing to report openly. Given the impact that a suicide can have on clinicians, this is not surprising (Alexander, Klein, Gray, Dewar & Eagles, 2000, Ruskin, Sakinofsky, Bagby Dickens, Sousa, 2004).

Research into the question of when a suicide implies insufficient quality of care is scarce. Desai, Dausey and Rosenheck (2005) conclude that suicide rates most likely are not a useful indicator of the quality of mental health care. In their exploratory study, no associations were found between suicide rates and facility-level variables such as average length of stay of inpatients. According to the authors, this suggests that systematic changes in these facility level variables would be unlikely to significantly reduce the number of suicides. On the other hand, a recently published study from Finland shows that the organization of mental health services is associated with suicide rates. Well-developed community-based mental health services had lower rates than services where inpatient treatment was more prominent (Pirkola, Sund, Sailas, Wahlbeck, 2009).

The defensive reactions to the notification obligation and to responses made by the inspectorate can also be seen in the context of a more general discussion about the most effective manner of reporting on adverse events and improvement of quality of care that is being conducted in the Netherlands and on an international level. This discussion focuses on whether or not reporting of adverse events should be voluntary or mandatory and if it should be blame-free. Evidence for the effect of both reporting systems is scarce and largely anecdotal (Leape, 2002).

Another interesting result is that there are disagreements between medical directors and inspectors about the treatment of suicidal patients, concerning suicide risk assessment, 'no suicide' contracting and the use of restrictive measures in treatment. Also, there is uncertainty about the standards that the inspectorate applies in assessing suicide notifications. However, the inspectorate has to follow the standards and norms that the mental health field dictates, which is difficult if no agreement is reached within the field.

To our knowledge, no research has examined the role of supervision on quality of care for suicidal patients before. The only known study is by Rønneberg & Walby (2008), which concludes that 19% of suicides by mental health care patients are not reported according to the requirements, and that almost none of the institutes subsequently improved quality of care. However, it seems unlikely that the same

applies to the Dutch situation, since there is a long tradition of notifying the inspectorate (since 1984), and the proportion of suicides under treatment of mental health care services is relatively high. 41% of all suicides in the Netherlands were under mental health care in 2007, compared to 25% in the UK (Appleby et al., 2006), and 24% in Victoria, Australia (Burgess, Pirkis, Morton, Croke, 2001). Results from the interviews indicate a reasonable willingness among clinicians to openly notify suicides to the inspectorate.

In conclusion, the function of the supervision system cannot be viewed as the inspectorate dictating to mental health care services how to deal with suicidal patients. The utility of the system seems to be more indirect. The inspectorate has a stimulating role, motivating mental health care directors to critically self-reflect, and opening discussion about suicide risk assessment, use of 'no suicide' contracts, continuity of care and the involvement of family members in the treatment of suicidal patients. However, there seems to be considerable ambivalence about the usefulness of the procedure. The main points of criticism seem to center around the issue of guilt implied by the preventability-driven work of the inspectorate and the focus on individual notifications instead of structural problems.

Limitations

The main limitations to this study are the methodological difficulties inherent to qualitative research methods (Kvale, 1994). To enhance the reliability of the data, both the first and the second author reviewed the analyses of the transcripts of the interviews. In addition, sample size seems to be satisfactory, especially regarding the interviews with medical directors and inspectors. About half of a total of 60 major mental health care institutions in the Netherlands participated in this study.

Recommendations

Recommendations that might improve learning from suicides and quality of care are:

- √ Clear standards of good clinical practice, as used by the inspectorate in the assessment of suicide notifications, including a clear definition of calamity, preferably in a non-accusatory manner. Also, a clear standard of good clinical practice regarding the assessment and treatment of suicidal patients should be formulated.
- √ Less focus on individual notifications, and more attention to structural flaws in health care delivery. This way, individual clinicians could feel less criticized or

threatened, and there will be more focus on structural problems in the quality of the mental health care provided.

- √ More verbal interaction between the mental health field and inspectors, and a faster exchange of correspondence concerning suicide notifications.
- √ More uniformity in responses by inspectors.
- √ More information provided by the inspectorate regarding the characteristics of all suicide notifications in any one year (provided by all mental health care services).
- √ The inspectorate should reflect on the different purposes of the suicide notification procedure. The threatening aspect for clinicians or mental health care institutions (the possibility of legal action on the basis of a suicide notification) could reduce the learning effects of evaluation by the institutions and clinicians as a result of defensiveness.

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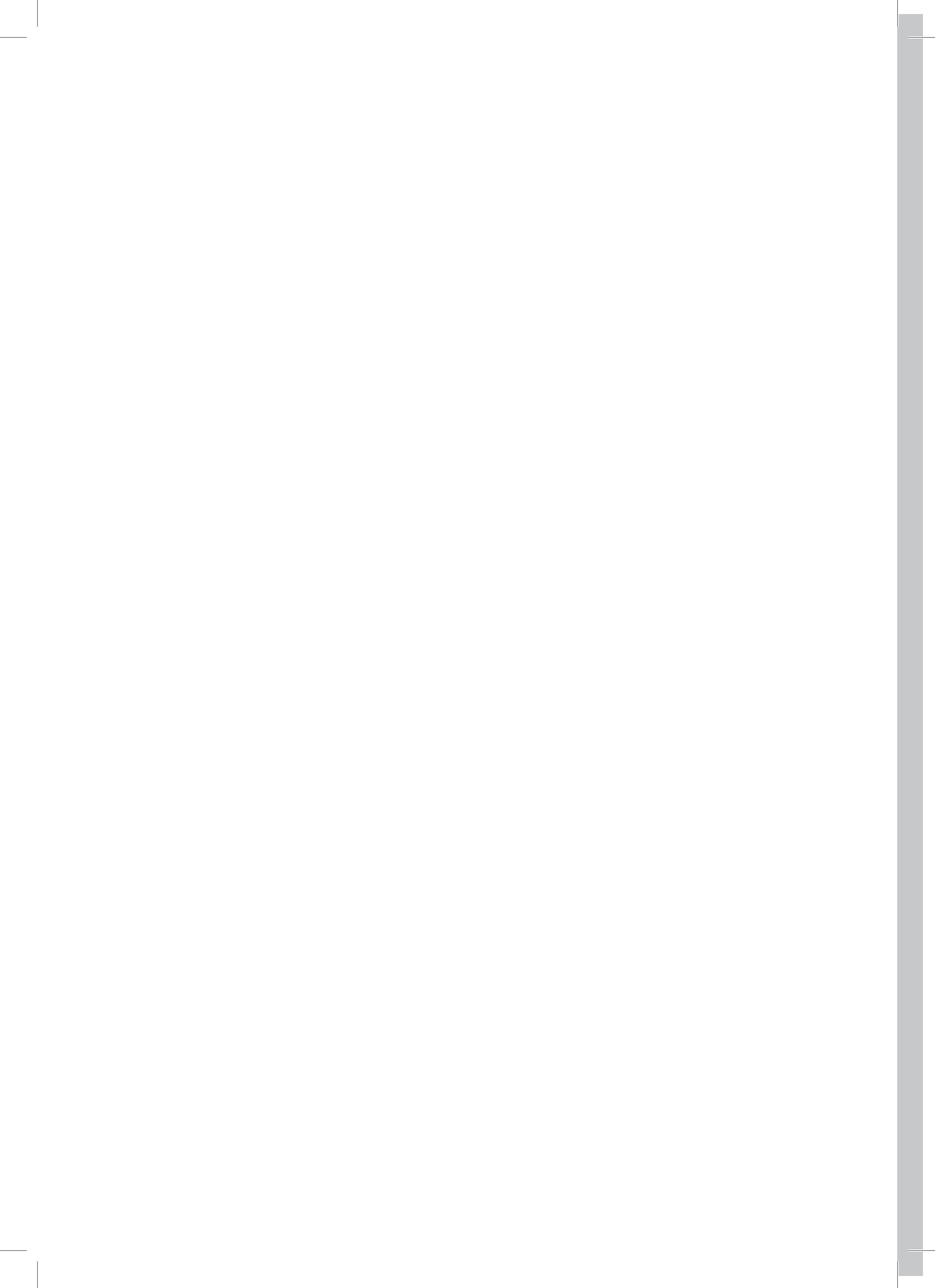
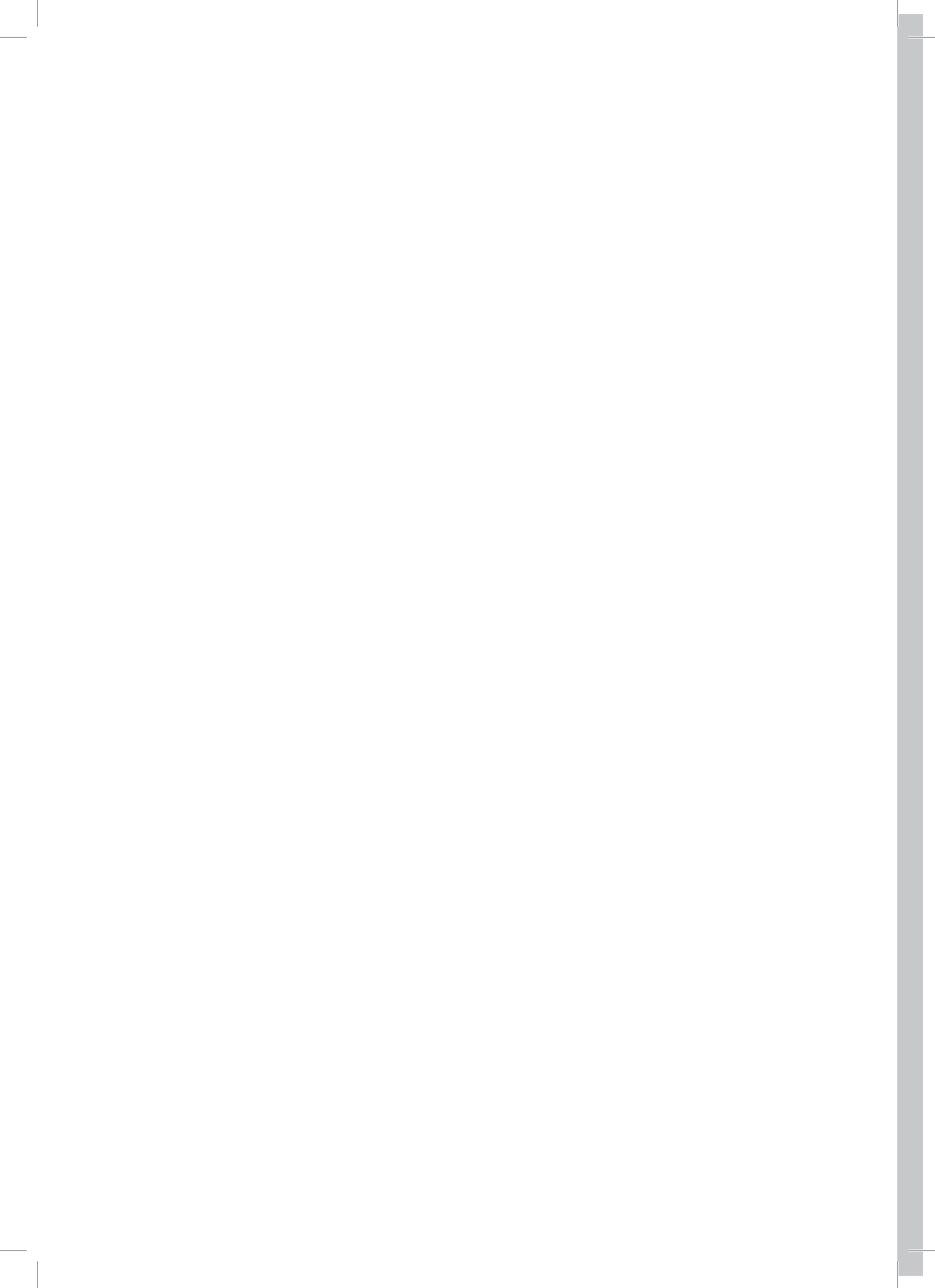


Part III

The practice: Aspects of suicide prevention in mental health care services



Chapter 6

The no-suicide contract: a risky ritual

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Het non-suïcide contract: een riskant ritueel
P. de Vries, A. Huisman, A.J.F.M. Kerkhof, P.B.M. Robben
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Abstract

Despite previous research, the preventive value of no-suicide contracts is still uncertain. Using no-suicide contracts can be considered as a risky ritual, since the actual suicide risk can be underestimated. Proposed alternatives are systematic risk assessment, the commitment to treatment statement and the postponement agreement.

Introduction

Despite worldwide use of no-suicide contracts in clinical practice (McConnell-Lewis, 2007), empirical evidence on its effectiveness is scarce. This also applies to Dutch mental health care settings, where no-suicide contracts are used frequently. The Dutch Health Care Inspectorate receives around 600 suicide notifications a year. For evaluation research of this supervision procedure, 505 suicide notifications were screened in detail (1996-2006). Results show that in 23,2% of these notifications, a no-suicide contract was explicitly mentioned in the period preceding the suicide. The qualitative analysis of these notifications indicated that some clinicians were surprised that a patient died by suicide in spite of their agreement. They possibly had the impression that a no-suicide contract eliminated the suicide risk.

Definition

The no-suicide contract was introduced more than thirty years ago by Drye, Goulding & Goulding (1973). These authors described a self-developed method of the no-suicide 'decision' as a way to assess the severity of suicidal ideations. A patient should say 'whatever happens, I will not commit suicide, not by accident and not on purpose, at any moment'. Afterwards, the patient determines what kind of feeling the statement evokes. This response would be a good indication of the suicide risk.

After this no-suicide decision was introduced, it has taken many forms, such as a therapeutic intervention, and became known under the term ' no-suicide contract'. Contracts can be written on paper or can be agreed verbally. No-suicide contracts frequently contains the following common elements:

- a clear statement that the patient will not commit suicide
- details of the duration of the agreement
- a crisis plan in case the condition of the patient deteriorates
- the responsibilities of both the patient and the therapist,

Empirical Research

Although there are both fierce opponents and supporters of no-suicide contracting, no reliable or valid data can confirm their effectiveness in preventing suicide. Furthermore, previous studies are often based on interviews concerning the experiences of clinicians and patients. A study in which 267 psychiatrists were sent questionnaires

showed that about half of the participants used no-suicide contracts. Of those who did, 41% had treated at least one patient who entered into a no-suicide contract but attempted suicide or died as a result of suicide (Kroll, 2000). Interviews on the experiences of nurses with the use of no-suicide contracts provided conflicting results. In one study, most nurses were positive about no-suicide contracting. They were seen as a helpful tool for the assessment of suicide risk and to establish a therapeutic alliance (Farrow, Simpson & Warren, 2002). However, contracts sometimes also functioned to reduce guilt and feelings of anxiety, or were used when time and other resources were unavailable (Farrow, 2002). Research on the attitude of suicidal patients also provided conflicting results. In a study among 134 hospitalized patients, no-suicide contracts were generally evaluated in a positive way (Davis, Williams & Hays, 2002). Patients who had attempted suicide more than once, thought the contract to be less useful than patients who attempted suicide once or had never attempted suicide. In another study, patients felt that no-suicide contracts reduced open communication about suicidality and gave the impression that they were the only ones responsible for their safety (Farrow et al., 2002). Of those patients who recently experienced a suicidal crisis and agreed to a no-suicide contract, the majority felt forced to do so and were afraid of the consequences of refusing. Results from a study of 76 medical files of admitted patients who died by suicide (Busch et al., 2003) showed that the majority denied being suicidal in the period preceding the suicide. Nevertheless, 28% had agreed to a no-suicide contract. The authors concluded that for these patients, the clinician could not trust a patient's ability to agree to a no suicide contract, although it is possible that contracts are useful for other patients. Finally, in a study of 650 files of inpatients, for 33% a no-suicide contract was in place (Drew, 2001). Preventive effects of a contract on self-harm behaviors was not shown.

Guidelines

The Dutch Association of Psychiatry has no guidelines for the treatment of suicidal behaviors. In its guidelines, the APA (2003) recommends caution in the use of no-suicide contracts. They are not an alternative to risk assessment and there is no evidence for their effectiveness. In addition, the APA warns that a contract can function as a false reassurance and can reduce alertness to suicide. The use of no-suicide contracts is discouraged for unknown patients, such as those who are seen in emergency settings, and patients who are psychotic, agitated, impulsive or intoxicated.

Alternatives

At least three alternatives are available for the professional treatment of suicidal behavior. The effectiveness of these alternatives also has to be evaluated.

Risk assessment

Suicidal ideations can fluctuate over time. Dependent on the condition of a patient, suicidal thoughts can become more intense and severe. Furthermore, suicide risk is partially dependent on long-term risk factors. Also, the severity of suicidal ideation is an important contributor to the suicide risk. If suicidal ideations are frequently present, are more desperate and more detailed, the suicide risk increases. The first weeks after inpatient care and transfers within mental health care are well known risk moments. Furthermore, it is important to assess the strength of a patient's social network. Suicidality is a continuous process, in which clinicians and the patient can assess its intensity weighted against protective factors.

Commitment to treatment statement

Some authors are in favor of a 'commitment to treatment statement' (CTS) (Rudd, Mandrusiak & Joiner, 2006). In a CTS, a patients records his or her involvement with life and treatment, including their roles, obligations and expectations. In contrast to the no-suicide contract, the CTS does not explicitly exclude suicide as an option. An important part of the CTS are crisis plans, in which clear arrangements are recorded in case the condition of the patient deteriorates, and which are similar to no-suicide contracts. A patient will take action or seek help if he or she cannot comply with the agreement.

The postponement agreement

Van Oenen et al. (2006) describe a method for acute crisis situations. The main question in this respect is how a patient can postpone a suicide until a thorough evaluation has been made. Patients are asked if they are willing to delay their plans to die by suicide until the next appointment. Risks and safety are discussed, preferably in dialogue with significant others. Both the patient and significant others must be able to call for consultation, within and outside office hours. The patient and the clinician should consider the suicide plans together, and the patient should actively make up the balance. An appealing element of this method is the agreement to discuss suicidal urges thoroughly.

Discussion

Despite the frequent use of no-suicide contracts, no valid evidence is available thatproves their effectiveness in preventing suicide. Suicidal ideations are common among psychiatric patients, and if a clinician uses no-suicide contracts with low risk patients, chances are that they will falsely adopt the belief the contract is effective. However, the chance that a patient will die by suicide shortly after an assessment is small, even in high risk patient groups. Consequently, it is difficult to demonstrate that a no-suicide contract is not effective. Moreover, several studies indicate that the use of a no-suicide contract can be harmful, for example by reducing alertness to suicide in clinicians, and by creating feelings of being pressured into a contract in patients. Another risk is that a contract will address suicidal urges but not with the underlying reasons for hopelessness. In this way, the treatment of suicide is separated from its cause, and the suicide threat is not treated in its original context. On these grounds, the no-suicide contract can be seen as risky. The available evidence shows that a no-suicide contract does not guarantee that a patient will not die by suicide. Therefore, the APA stresses the importance of risk assessment. Important decisions regarding treatment, such as discharge or granting leave, should not be solely based on the willingness of a patient to enter into a contract.

Conclusion

There are possibly less risky alternatives for no-suicide contracts, such as regular risk assessment, a commitment to treatment statement and a postponement agreement. These alternatives lack the most paradoxical element of a no-suicide contract, i.e., an agreement not to commit suicide which is most difficult to keep for severely suicidal patients. As for the no-suicide contract, further research is needed to demonstrate the effectiveness of these alternatives. Because of the value that many attach to no-suicide contracts and the lack of sound empirical research, we recommend further prospective research on the preventive value of the no-suicide contract, and caution in its use in the meantime.

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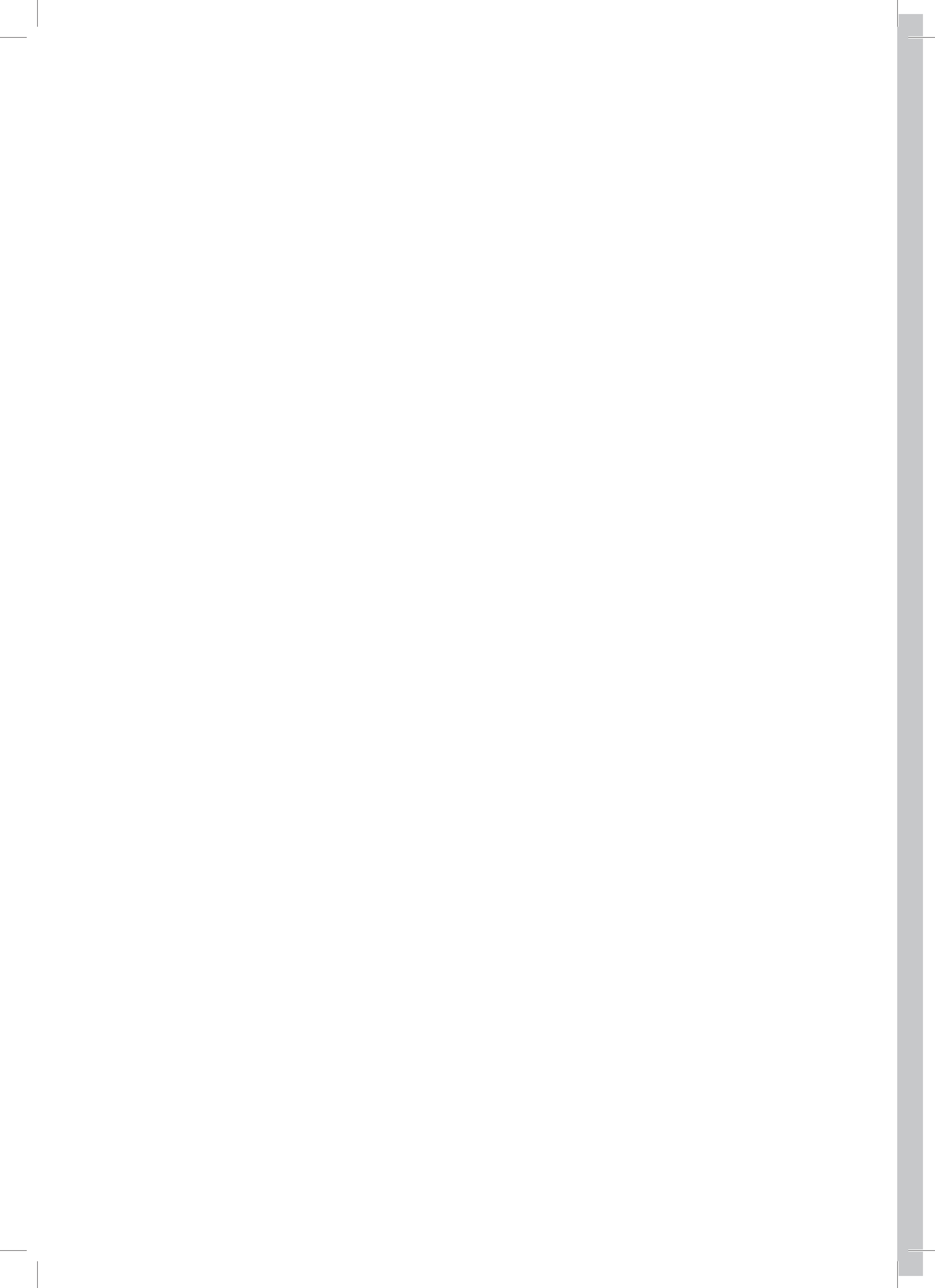

Chapter 7

Psychopathology and suicide method in mental health care

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Psychopathology and suicide method in mental health care
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Abstract

Background: Not all suicide methods are evenly distributed among different psychiatric disorders.

Methods: In a nationwide sample of 505 suicides by persons in mental health care, the relationship between psychiatric diagnosis and suicide method was examined with $\chi 2$ tests, logistic regression analyses and multinomial logistic regression analysis, including interactions with age, gender and treatment status.

Results: Psychotic disorders were associated with jumping from heights, and substance-related disorders were associated with self-poisoning. Depressive disorders were not associated with any particular suicide method. Male patients preferred hanging, female patients self-poisoning. Inpatients preferred jumping before a train, outpatients self-poisoning. Bipolar patients preferred jumping before a train over hanging.

Limitations: Psychological mechanisms for selection of suicide methods are still unknown.

Conclusions: Possible means of suicide prevention suggested by this study include limiting access to tall buildings or structures to patients with psychotic disorders; careful prescription of medication to female patients and particularly to patients with substance-related disorders; and limiting easy access to railways near clinical settings to patients with bipolar and psychotic disorders. Limiting access to means of suicide may be less effective for suicidal patients with depressive disorders who may switch to other available methods.

Introduction

Suicide by different methods may constitute different behaviors, with different correlates and determinants. Factors influencing the selection process of a particular suicide method are availability, accessibility and acceptability of a method (Clarke and Lester, 1989), as well as gender and age (Henriksson et al., 1995; Osuna et al., 1997; Denning et al., 2000; Tadros and Salib, 2000). Studies examining the influence of psychopathology on the choice of suicide method are relatively scarce. Up until now, most research has focused on the prevalence of mental disorders among suicides of a particular method, especially more violent suicide methods such as jumping before a train or from heights. Results are not conclusive about the particular role of psychopathology, yet knowledge about these associations may in several ways contribute to the quality of clinical practice. Information might alert clinicians to risks when dealing with patients belonging to method-specific subpopulations of mental disorders. At an institutional level situational prevention might be applied by limiting access to certain methods in settings where corresponding subpopulations are treated. Therefore, the aim of the current study is to examine the associations of psychiatric diagnoses with suicide methods in a nationwide sample of 505 mental health care suicides, including interactions with age, gender and treatment setting.

Method

Data were obtained from The Netherlands Health Care Inspectorate, an independent organization under the responsibility of the Minister of Health, Welfare and Sport in The Netherlands. On every suicide that occurs in mental health care services a detailed report is sent to the inspectorate. This report includes the circumstances of the suicide, characteristics of and possible flaws in the treatment of the patient. The purpose of this notification procedure is to monitor the quality of mental health care. Currently about 550 suicides are reported each year, which constitute about 36% of the national suicide figure. In the first months of 2006, all consecutive suicide notifications were studied (n=205). Added to these, was a random sample of 300 notifications from all cases in the period 1996-2005 (n=4950), with the purpose of studying historical developments in the supervision system (see results in Huisman et al., 2009). There were no differences between the 2006 notifications and the sample of earlier years regarding the distribution of diagnosis, suicide method, gender

or treatment status. All notifications were screened on suicide method and the following patient characteristics: age, gender, inpatient versus outpatient status, and psychiatric DSM IV diagnosis (Axes I and II) reported by the practitioner involved (usually a psychiatrist). For the analysis the principal diagnosis was used. In the case of multiple Axis I diagnoses, the reported ranking was followed, the first diagnosis was considered the principal diagnosis. The principal diagnosis reflects the main focus of attention or treatment in relation to the suicide. If only an Axis II diagnosis was reported, this was considered the principal diagnosis. As this was the case only 17 times, personality disorders were not considered a separate diagnostic group in the analysis. 195 patients (39%) had a diagnosis of a personality disorder secondary to a principal diagnosis.

For the analysis diagnoses were grouped in 6 diagnostic categories:

1) Psychotic disorders (schizophrenia, schizoaffective disorders and other psychotic disorders);
2) Depressive disorders (including dysthymic disorder);
3) Bipolar disorders;
4) Substance-related disorders (alcohol and/or drug dependence/abuse);
5) Anxiety disorders and
6) other disorders. The group of other disorders included: no Axis I diagnosis, unknown, cognitive disorders, eating disorders, attention-deficit hyperactivity disorder and other disturbances (somatoform disorders, exhibitionism, partner relational problem, autism, dissociative disorder).

Age was divided in two categories: younger than 60 and 60 or over, in order to concur with previous studies. Suicide methods were grouped in 6 categories:

1) Jumping before a train;
2) Hanging (and strangulation);
3) Jumping from a high place;
4) Drowning;
5) Self-poisoning (by solid or liquid substances);
6) Other, unspecified or unknown means.

Statistical analysis

The objective of this study is to analyze the relationship of suicide method with psychiatric diagnosis, taking into account patient and treatment characteristics. Differences in suicide method and psychiatric diagnosis, gender, age, category,

treatment status and the presence or absence of an Axis II diagnosis of a personality disorder were explored through a Chi-square test of independence. Adjusted residuals were examined to see which cells contributed the most to the significant results. Adjusted standardized residuals follow the t distribution, with >1.96, $p<0.05$ and >2.56, $p<0.01$. In addition, the hypothesis that predictor variables diagnosis, gender and treatment status had a separate influence on each suicide method was tested through logistic regression analyses. With those independent variables that had a significant influence, a multinomial logistic regression analysis was performed, as a more general model to predict method of suicide. Dependent variables in the multinomial regression analysis were self-poisoning, jumping before a train, jumping from a high place and the category all other means. Hanging was chosen to be the category of reference, as the most common method of suicide. An alpha level of 0.05 was used in all statistical tests, except in the logistic regression analysis, where alpha was 0.01 after Bonferroni correction.

Results

The study sample consisted of 280 men and 225 women with a mean age of 46 years and 47 years respectively (median 45, SD=15.5). The age group younger than 60 consisted of 419 patients, the age group 60 or over of 86 patients. Most common Axis I diagnoses were depressive and psychotic disorders (see Table 1). 42% of the patients had a diagnosis of a personality disorder, in 17 cases this was the principal diagnosis. Of all 505 cases examined, 154 were inpatients (30%), and 351 (70%) were outpatients.

Table 1. Frequencies of Principal Diagnoses

DSM IV Axis 1: Mental disorder	n	%
Psychotic disorders	141	27.9
Depressive disorders	218	43.2
Bipolar disorders	36	7.1
Substance-related disorders	41	8.1
Anxiety disorders	22	4.4
Other disorders	47	9.3
Total	505	100

Suicide method and psychiatric diagnosis

The most frequently used suicide methods were hanging (34%), self-poisoning (19%), jumping before a train (17%), jumping from a high place (15%) and drowning (8%) (see Table 2). 1% used a firearm and one patient jumped before a car. At least 2/3 of the self-poisoning cases used prescribed medication (61/95), in some cases (19/95) in combination with non-prescribed medication and drugs. In 30 cases no information about particular substances was available. The Chi-square test of independence for suicide method and principal psychiatric diagnoses was significant ($\chi 2=44.2$, df=25, p=0.01).

Table 2. Suicide Method according to Principal Diagnosis

	Method													
Principal diagnoses	**Train**		**Hanging**		**Jumping**		**Drowning**		**Self-poisoning**		**Other**		**Total**	
	n	**(%)**	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**
Psychotic disorders	30	(21)	40	(28)	35	(25)	10	(7)	14	(10)	12	(9)	141	(100)
Depressive disorders	35	(16)	82	(38)	21	(10)	15	(7)	48	(22)	17	(8)	218	(100)
Bipolar disorders	10	(28)	12	(33)	4	(11)	4	(11)	3	(8)	3	(8)	36	(100)
Substance-related disorders	4	(10)	11	(27)	6	(15)	4	(10)	13	(32)	3	(7)	41	(100)
Anxiety disorders	4	(18)	7	(32)	2	(9)	3	(14)	5	(23)	1	(5)	22	(100)
Other disorders	3	(6)	20	(43)	6	(13)	2	(4)	12	(26)	4	(9)	47	(100)
Total	86	(17)	172	(34)	74	(15)	38	(8)	95	(19)	40	(8)	505	(100)

Table 3 shows which variables contributed most to this significant result. Patients with psychotic disorders jumped from heights more often (25%) than patients with any other principal diagnosis (11%). Furthermore, patients with psychotic disorders less often used selfpoisoning as suicide method (10% vs. 22%). Patients with depressive disorders jumped less often from high places (10% vs. 19%). Patients with substance-related disorders selfpoisoned more often (32 vs. 18%). Lastly, patients diagnosed with other disorders jumped less often before a train (6% vs. 18%). No

differences were found in the $\chi2$ test for patients with and without an Axis II diagnosis personality disorder ($\chi2=8.4$, df=5, p=0.14).

Table 3. Standardized residuals for Chi square test of diagnosis and method of suicide

	Method					
Principal diagnosis	**Train**	**Hanging**	**Jumping**	**Drowning**	**Self-poisoning**	**Others**
Psychotic disorders	1.6	-1.7	4.0*	-0.2	-3.2*	0.3
Depressive disorders	-0.5	1.5	-2.8*	-0.5	1.6	-0.1
Bipolar disorders	1.8	-0.1	-0.6	0.8	-1.7	0.1
Substance related disorders	-1.3	-1.0	0.0	0.6	2.2*	-0.1
Anxiety disorders	0.1	-0.2	-0.8	1.1	0.5	-0.6
Other disorders	-2.0*	1.3	-0.4	-0.9	1.2	0.2

* $p<0.05$

Suicide method and gender

The Chi-square test of independence for suicide method and gender was significant ($\chi2=23.8$, df=5, $p<0.001$). The most significant contributors to this difference (see table 4) were hanging and self-poisoning. Male patients hanged themselves significantly more often (41% vs. 26%), female patients chose self-poisoning more frequently as suicide method (12% vs. 27%).

Table 4. Standardized residuals for chi square test of suicide method, gender and treatment status

	Gender		Treatment status	
Suicide method	**men**	**women**	**ambulatory**	**inpatient**
Train	0.1	-0.1	-5.9*	5.9*
Hanging	3.5*	-3.5*	-0.1	0.1
Jumping	0.0	0.0	0.2	-0.2
Drowning	-0.7	0.7	1.7	-1.7
Intoxication	-4.3*	4.3*	3.9*	-3.9*
Others	0.6	-0.6	0.8	-0.8

* $p<0.05$

Suicide method and treatment status

The Chi-square test of independence between suicide method and treatment status was significant ($\chi2=44.3$, df=5, $p<0.001$). Table 4 shows which variables contributed most. Inpatients jumped significantly more often before a train than outpatients (32% inpatients vs.11% outpatients) and self-poisoned less often (8% inpatients vs. 23% outpatients).

Suicide method and age

The Chi-square test of independence between suicide method and age was not significant ($\chi2=5.5$, df=5, p=0.36).

Logistic regression analysis

The results of the logistic regression analyses are shown in Table 5. If a patient was in outpatient treatment, the odds he or she jumped in front of a train decreased OR=0.25), while odds for self-poisoning increased (OR=3.53). When a patient was primarily diagnosed with a psychotic disorder, odds increased that jumping from a high place was the method of suicide (OR=2.67), and decreased for hanging as method used (OR=0.56). If a patient was male, odds increased that the suicide method was hanging (OR=2.25), and decreased for self-poisoning (OR=0.32). In case of a substance-related disorder, the odds increased that selfpoisoning was the suicide method used (OR=3.49).

Multinomial logistic regression analysis

Compared to suicides by hanging, patients who poisoned themselves were more likely to have a substance-related disorder (OR=4.13), to be in outpatient treatment (OR=3.22) and less likely to be male (OR=0.23). Patients who jumped before a train were more likely to have a bipolar disorder (OR=5.53) or a psychotic disorder (OR=4.97) and less likely to be outpatient (OR=0.36). Suicides by jumping from a high place were more likely to have a diagnosis of a psychotic disorder (OR=3.42) and less likely male (OR=0.51), when compared to patients who suicided by hanging. Compared to hanging, other methods were used less by males (OR=0.56). The multinomial logistic regression explained 21% of the variance (see Table 6).

Table 5. Logistic Regression Analysis of variables influencing method of suicide

Method	Independent variables	B	Wald	Odds ratio	95% CI	p	R2
Train	gender (men)	0.02	0.01	1.02	0.62-1.67	(p=0.94)	0.11
	outpatient treatment	-1.37	30.50	0.25	0.16-0.41	(p<0.001)*	
	psychotic disorders	0.22	0.40	1.25	0.63-2.49	(p=0.53)	
	substance-related disorders	-0.69	1.26	0.50	0.15-1.66	(p=0.26)	
	depressive disorders	-0.02	0.00	0.98	0.51-1.89	(p=0.96)	
Hanging	gender (men)	0.81	16.06	2.25	1.51-3.34	(p<0.001)*	0.06
	outpatient treatment	-0.07	0.10	0.94	0.62-1.41	(p=0.75)	
	psychotic disorders	-0.58	4.16	0.56	0.32-0.98	(p=0.04)*	
	substance-related disorders	-0.77	3.43	0.46	0.20-1.05	(p=0.06)	
	depressive disorders	-0.02	0.01	0.98	0.60-1.60	(p=0.93)	
Jumping	gender (men)	-0.16	0.36	0.85	0.51-1.43	(p=0.55)	0.06
	outpatient treatment	0.13	0.28	1.14	0.66-1.98	(p=0.63)	
	psychotic disorders	0.98	7.12	2.67	1.30-5.51	(p=0.01)*	
	substance-related disorders	0.35	0.40	1.42	0.49-4.14	(p=0.53)	
	depressive disorders	-0.18	0.23	0.83	0.39-1.77	(p=0.64)	
Drowning	gender (men)	-0.27	0.62	0.76	0.38-1.51	(p=0.43)	0.02
	outpatient treatment	0.72	2.75	2.05	0.88-4.77	(p=0.10)	
	psychotic disorders	-0.10	0.04	0.90	0.35-2.34	(p=0.83)	
	substance-related disorders	0.28	0.18	1.31	0.37-4.70	(p=0.67)	
	depressive disorders	-0.22	0.25	0.80	0.34-1.90	(p=0.62)	
Self-poisoning	gender (men)	-1.15	19.86	0.32	0.19-0.53	(p<0.001)*	0.16
	outpatient treatment	1.26	14.94	3.53	1.86-6.70	(p<0.001)*	
	psychotic disorders	-0.51	1.73	0.60	0.30-1.29	(p=0.19)	
	substance-related disorders	1.25	7.57	3.49	1.43-8.50	(p=0.01)*	
	depressive disorders	0.27	0.76	1.31	0.71-2.41	(p=0.38)	
Other	gender (men)	0.20	0.35	1.23	0.63-2.40	(p=0.55)	0.01
	outpatient treatment	0.31	0.65	1.36	0.65-2.86	(p=0.42)	
	psychotic disorders	0.11	0.05	1.11	0.43-2.86	(p=0.83)	
	substance-related disorders	-0.11	0.02	0.90	0.22-3.65	(p=0.88)	
	depressive disorders	0.02	0.00	1.02	0.42-2.44	(p=0.97)	

*=p<0.05

Table 6. Multinomial logistic regression analysis

Patient characteristic	Suicide method								
	Train		Jumping		Intoxication		Other		Hanging
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR
Male	0.61	0.35-1.06	0.51*	0.29-0.92	0.23**	0.13-0.40	0.56*	0.32-0.99	1.00
Ambulatory treatment	0.36**	0.21-0.61	1.17	0.63-2.15	3.22**	1.61-6.45	1.71	0.91-3.22	1.00
Psychotic disorder	4.97*	1.31-18.83	3.42*	1.21-9.64	0.84	0.31-2.24	2.17	0.75-6.31	1.00
Depressive disorder	2.82	0.77-10.30	0.91	0.32-2.56	1.12	0.49-2.60	1.39	0.51-3.81	1.00
Bipolar disorder	5.53*	1.23-24.82	1.13	0.26-4.88	0.42	0.09-1.88	1.99	0.53-7.39	1.00
Substance-related disorder	2.54	0.46-13.98	2.39	0.60-9.48	4.13*	1.30-13.05	2.80	0.73-10.73	1.00
Anxiety disorder	3.33	0.57-19.34	1.00	0.16-6.23	1.39	0.33-5.75	2.09	0.45-9.77	1.00

*=$p<0.05$**=$p<0.01$ $R^2=0.21$ (Nagelkerke) OR= odds ratio CI= confidence interval

Discussion

The aim of the present study is to examine the associations between psychiatric diagnoses and suicide methods. The strongest association was found between psychotic disorders and jumping from a high place. This strong link corroborates with findings of De Moore and Robertson (1999) and Kreyenbuhl et al. (2002). De Moore and Robertson found among survivors of self-harm that 55% of the jumpers had a psychotic disorder versus only 4% of those who used a firearm. Kreyenbuhl reports that jumping from a height was the most frequently used method among suicides with schizophrenia, whereas only 4% of the suicides without schizophrenia used this method. However, Beautrais (2007) summarizes in her review on suicides by jumping that although some studies report an overrepresentation of more severe psychiatric disorders (including psychotic disorders), other studies did not find the same features. These conflicting outcomes may reflect small numbers in the reviewed studies or may be related to the fact that jumping from a height predominantly took place in domestic settings or locations near psychiatric hospitals or other care facilities. The current study, based on clinical diagnoses, surpasses some of the above-mentioned

shortcomings of diagnostic a-specificity and selective study samples due to its large size and nationwide catchment area. Therefore, the conclusion that there is a specific association between psychotic disorders and jumping from a high place seems well supported. An explanation for this phenomenon might be that because of disabling functional and cognitive deficits, reasons suggested by De Moore and Robertson (1999) and by Kreyenbuhl et al. (2002) earlier, patients with psychotic disorders resort to simply making use of the force of gravity. This particular method might require less preparation and might reflect heightened impulsivity. It would need though a systematic questioning of schizophrenic patients, not only the suicide prone, about their evaluation of various suicide methods, to understand their preferences better. The high prevalences in the current study of both affective disorders and psychotic disorders in train suicides are in line with earlier studies (Mishara, 2007). In a review of 5 train suicide studies, affective disorders were most prevalent (39%) followed by functional non-affective psychosis (25%) (Van Houwelingen and Kerkhof, 2008). Notwithstanding the findings that patients with psychotic disorders are particularly prone to the use of methods that result in physical injury more often than patients with affective psychoses (Held et al., 1998; Radomsky et al., 1999), these findings illustrate that suicides resulting in severe physical injury are not the exclusive domain of patients with psychotic disorders. In case of train suicides the choice for this method might be structured by a factor that is shared both by patients with schizophrenia and by patients with affective disorders, such as the proximity and accessibility of a railway nearby the psychiatric hospital. In this study, not diagnosis but inpatient status has the strongest association with the choice of jumping before a train as suicide method.

Another strong association was found between substance related disorders and self-poisoning. Most of the selfpoisoning cases in this study used prescribed medication.

Although research on self-poisoning and alcohol and drug related disorders is scarce, this result is in line with previous findings (Preuss et al., 2003). A possible explanation for this link could be that both the addictive behavior and the suicidal act are psychologically the same behavior: the use of psychotropic substances to alter consciousness.

In our study, male patients hanged themselves more often and women self-poisoned significantly more frequent. This corroborates the study of Denning who found that, with equal suicide intent, men, compared to women, tend to use more

violent suicide methods such as hanging or guns, while women self-poison more often (Denning et al., 2000). However, for jumping in front of a train or from a height, no sex differences were found, which is in line with results of Kposowa and McElvain (2006).

Limitations of the study

The current study is conducted with persons who were being treated in mental health care services. Thus associations found between psychopathology and method of suicide may not be the same for those not receiving mental healthcare. In addition, this research was done within a national context of prevalences of psychiatric disorders and availability and acceptability of a set of methods. This means that the generalizability of the findings could be limited towards countries which differ significantly in terms of those parameters. For example, suicides by gunshots were rare in this study, although this method is frequently used in some countries.

Information about socio-demographic factors such as employment and circumstances of living (Abe et al., 2004) were not included in this study, although these variables (Pirkola et al., 2003) may influence the choice of method as well. Lastly, psychological mechanisms for selection of suicide methods need further study.

Implications for suicide prevention

Since distinct associations between pathology and suicide method were found, it can be inferred that limiting access to some methods will only partially lead to switching to another method (Clarke and Lester, 1989). A reduction of the suicide risk might be reached when physicians are extra careful when prescribing medication to female patients and patients with substance-related disorders. Likewise, reduced access to or the fencing-off of tall structures is indicated in environments with populations of patients with disorders in the schizophrenia spectrum (Beautrais, 2007). Psychotic candidate suicides might abandon the idea if they are unable to find an alternative which is equally acceptable (Clarke & Lester, 1989; De Moore & Robertson,1999). This option would seem difficult to realize in large urban settings with schizophrenic patients living independently or semi-independently throughout the city. In addition, fences should be built in front of railway tracks in the proximity of inpatients settings. It is worth mentioning that, although this constitutes a somewhat different railway setting, minimizing direct contact of the public with moving trains in the Hong Kong underground has led to a significant reduction in the number of railway suicides,

apparently without causing displacement to other unsealed railway platforms (Law et al., 2009).

Clinicians can discuss preferences found in this study with patients early on in the treatment, which may open up the opportunity of exploring anticipatory preventive strategies.

In the current study depressive disorders were associated with a variety of suicide methods, which would seem to indicate that patients with depressive disorders are less selective in their methods. This implies that strategies limiting access to certain means of suicide might be less effective for the largest group of patients, i.e. those with depressive disorders. These patients might switch to a different method if one method were to become less easily available. This phenomenon should be anticipated if interventions limiting inpatients' access to railways are to be successful.

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Chapter 8

Prevention of post-discharge suicide: an inventory

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Preventie van suïcide na ontslag uit klinische opname: een inventarisatie
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Abstract

Background: Research has shown that the first months after discharge from psychiatric inpatient care is a high risk period for suicide. However, there has been very little research into the prevention policies that mental health care centres pursue in order to reduce this risk.
Aim: To draw up an inventory of the preventive activities that mental health services undertake to reduce the risk of suicide by psychiatric patients discharged from inpatient treatment.
Method: Fifteen mental health care providers of 10 different departments of 4 mental health care organizations in the province of North-Holland were asked in a personal interview about the policy of their institution regarding the prevention of suicide after discharge.
Results: One out of 10 locations had a standard policy for the prevention of suicide after discharge from psychiatric care. Four locations had an informal policy and 5 an ad hoc policy. Differences were found in the views of mental health care providers regarding suicide prevention and the responsibility of mental health care centres for the prevention of post-discharge suicide.
Conclusion: Only half of the mental health institutions employed a preventive policy with regard to post-discharge suicide. So far, the possibilities for prevention have not been fully utilized.

Introduction

In the first months after a patient's discharge from psychiatric hospitalization, the risk of suicide is enhanced (Appleby et al., 2001; Brunenberg & Bijl, 1996; Ho 2003; King et al., 2001). About 27% of all suicides by patients in contact with mental health care services take place within a year of discharge (Appleby et al., 2001). In patients diagnosed with depression, the risk is enhanced in the first two years after hospitalization (Oquendo et al., 2002). After discharge from inpatient care, there also is an increased risk of suicide attempts. Of suicide attempters that were treated in general hospitals, 20-35% had recently been hospitalized in a psychiatric hospital (Arensman Kerkhof, Hengeveld, Mulder, 1994). Possible explanations for the increased risk after discharge are insufficient recovery, improved insight into the illness, renewed confrontation with the stressful circumstances preceding the hospitalization, increased vulnerability as a result of reduced intensity of care and more availability of means (Appleby, 2000). There are indications that continuity of care reduces the suicide risk after discharge. Retrospective research (King et al., 2001) showed that continuity of care after discharge, such as the possibility of readmittance, was associated with a lower suicide risk. A prospective randomized controlled trial also demonstrated that systematic contact with discharged patients at risk of suicide had a preventive effect for at least two years (Motto & Bostrom, 2001). A study of patients admitted to an emergency department for deliberate selfpoisoning showed that patients who were contacted a month after discharge were less likely to have reattempted suicide (Vaiva et al., 2006). Therefore, suicide prevention should focus on the period after discharge. Several guidelines for the treatment of suicidal patients stress the importance of continuity of care (American Association of Suicidology, 2005; American Psychiatric Association, 2003; International Association for Suicide Prevention, 2000; Huisman, Kerkhof, Robben, 2007). These guidelines recommend the assessment of suicide risk prior to every discharge, and advise psychoeducation about suicidality to both the patient and family members (such as the identification of circumstances that can evoke suicidal behavior, information about the course of recovery, the possibly of relapse, and a open discussion about suicidality). Furthermore, the patient and significant others should be aware of the accessibility of mental health care in case a crisis occurs.Based on results from the National Confidential Inquiry (Appleby et al., 1999), it is advisable that patients at suicide risk should get an appointment within 48 hours after discharge from inpatient care. All

patients should be seen within a week after discharge, including those that that left against medical advice. In addition, it is advisable that the inpatient clinician and the clinician providing outpatient treatment discuss the treatment and assess the suicide risk jointly.

It is unknown what the aims of mental health care services in the Netherlands are regarding suicide prevention after discharge. Therefore, we conducted this study to inventorise what is done to prevent suicide in this high-risk period in a part of the Netherlands. The research question was: do mental health care services utilize a policy to prevent suicides after discharge from inpatient care? An additional question was : What kind of opportunities do clinicians see to prevent suicide after discharge?

Method

Design

We chose a qualitative study method in which relevant informants of mental health care services were interviewed personally. Informants were asked about their methods concerning suicide prevention after discharge from inpatient care and their ideas about possibilities for suicide prevention in this period. The study was limited to the province of North-Holland, because there were no reasons to assume that policies would be essentially different in other areas.

Participants

Of the 6 eligible mental health care services, 4 agreed to participate in the study. One mental health care service refused to participate without providing a reason. The other mental health care service considered suicide prevention to be mainly dependent on an individual patient. Consequently, a policy for suicide prevention after discharge was deemed impossible.

15 clinicians were interviewed, working in 10 different locations of the 4 participating mental health care services. Participants consisted of 12 psychiatrists (among whom 3 were involved in policymaking), 1 clinical psychologist, 1 physician and 1 nurse. They worked in different types of mental health care settings, such as a psychiatric hospital ward, a department providing long-term intensive care, a psychiatric ward of a general hospital, a clinic for the elderly, a ward for crisis hospitalizations, and outpatient treatment.

Categories of policy

For every location, the policy in place was classified in one of three categories: a formal policy, a informal policy and an ad hoc policy. A formal policy was defined as a written policy concerning suicide prevention after discharge that is supported by all clinicians within a location or mental health care service. An informal policy was defined as a policy that is generally accepted and applied by all clinicians in the location or mental health care service, but is not formally recorded in writing or agreed on by the management. An ad hoc policy was defined as a policy that depends on the individual patient, circumstances and the view of the treating clinician.

Results

In total, in 5 of the 10 locations a formal or informal policy was installed, in the 5 other locations an ad hoc policy was in place.

Formal policy

In one location, a written policy in the form of a protocol was present which was supported by the staff. In this location, it was agreed on that special measures must be taken when patients hospitalized because of suicidality (as the reason for hospitalization, or who threatened with suicide during hospitalization) left or were discharged. In the period before discharge or in the exit conversation, the possibility of returning suicidal thoughts was discussed explicitly, and the patients were instructed what to do if this happened. This was also recorded in the treatment plan. Outpatient treatment had to be arranged in advance. Furthermore, clinicians also recorded the assessment of suicidality in the medical file which was transferred to the outpatient clinician. Also, the clinic had made the arrangement with outpatient care that if a patient missed outpatient appointments, they would be contacted. In practice, there was a fifth routine that was not written down in the protocol. If possible, significant others were involved in the preparations for discharge, including discussion about what they could do if the patient became suicidal again.

Informal policy

In 4 locations, an informal policy was in place. In one location, continuity of care was ensured since the treating inpatient clinician would generally provide outpatient treatment as well. In two locations, psychiatric domiciliary care or acute day

treatment was offered after discharge if a patient was still suicidal. Furthermore, for patients with borderline personality disorder and frequent suicidal impulses, a special arrangement could be made in which the patient could choose for short hospitalization in the event of a crisis.

At two other locations, suicide prevention policies could indirectly be derived from standard policies, such as clear agreements about suicidality and responsibility for patients after discharge,and the use of plans to help signal relapse. This meant that the outpatient clinician would be involved during hospitalization and arranged appointments after discharge, that the patient was informed of who to contact after office hours, and that community crisis services were informed if necessary.

Ad-hoc policy

In the 5 other locations, an ad hoc policy regarding suicide prevention after discharge was in place. A number of clinicians stated that they would not discharge a patient if he or she was still suicidal. Suicidal ideations should diminish duringinpatient treatment. In the exit conversation, no explicit attention was given to a possible relapse of suicidal thoughts.

Different views of suicidality

In the interviews, it became apparent that for the participants, suicidality was strongly linked with different types of patients. General consensus seemed to exist concerning this subject. Suicidal ideations or behavior in the context of a severe depression was assessed and treated differently from that in patients with a borderline personality disorder. Also, clinicians were generally unanimous regarding decisions about the discharge of suicidal patients. Especially if suicidality was considered to be chronic, hospitalization was not seen as a protection against suicide. However, the patient's living conditions and social networks were thought to be important in this respect. Acontraindication for discharge was suicidality in the context of a psychosis or a severe depression.

However, two different views regarding the necessity of suicide prevention after discharge could be distinguished in the interviews. Every view had an equal number of supporters.

One view was that suicidality during hospitalization was a symptom of the underlying psychiatric illness. Adequate treatment of the psychiatric illness would lead to reduced symptoms of suicidality. In this vision, prevention of suicide

after discharge should focus on the psychiatric illness, such as depression. In the other view, suicidality is a phenomena that can manifest itself repeatedly, even if the psychiatric disorder is treated adequately. In this view, suicidality was seen a continuous vulnerability in dealing with daily disappointments and deserves specific attention in addition to the care for the psychiatric illness. Even if a patient seemed to be completely recovered before discharge, they were warned that suicidal ideations could return.

Suggestions for the improvement of policies

Participants in the study gave several suggestions for the improvement of current policies. Several participants thought that clinicians should be more aware that suicide can be a current theme for some patients, which should be discussed. Another suggestion was that suicidality should explicitly lead to an integrated treatment and prevention policy. Also, the involvement of significant others in treatment should be stressed more, including in the discharge period. Suicide should be discussed in an open manner with a patient's significant others.

Other recommendations concerned the transfer from the clinic to outpatient treatment. In the interviews, it became clear that transfer from inpatient to outpatient care did not always take place in an optimal manner. As a result of waiting lists in outpatient treatment settings, the clinic sometimes had to take responsibility for the aftercare after discharge. Outpatient clinicians were not always invited to patient meetings in the clinic on time. Direct communication between the psychiatrist of the clinic and the outpatient psychiatrist was sometimes lacking, which could lead to problems after discharge. As a result, a number of participants thought that direct contacts are always necessary, and both inpatient and outpatient psychiatrists should jointly make a plan considering relapse after discharge.

Discussion

Findings

The results show that formal policies on the prevention of suicides after discharge are rare within mental health care services. Moreover, one mental health care service that did not participate in this study saw suicide prevention as individually based, and consequently, policies for suicide prevention after discharge were not deemed possible. The absence of formal policies seems to be connected to the different views

of clinicians on the necessity of preventive measures. On the one hand, about half of the 15 participants thought that suicidality is not a specific psychiatric illness. In this view, suicidal ideations are the result of a mental disorder and will disappear if the psychiatric illness is treated adequately. Furthermore, suicide prevention is not one of the core tasks of an inpatient clinic. The other half of the participants viewed suicide after discharge as one of their responsibilities. In this view, it is important to consider the possibility of returning suicidal impulses after discharge, regardless of the treatment of the psychiatric disorder. These two contradictory views sometimes existed within the same mental health care service.

Views

Disagreements seem to exist within psychiatry as to whether policies for suicide prevention after discharge are possible and necessary. Recent empirical studies indicate that suicidal behavior can have a repetitive character, and that the tendency to react with suicidality can be seen as a personality trait. This means that suicidal ideations or behavior are not always a secondary symptom of a mental disorder, but can be seen as a vulnerability that varies alongside the severity of a psychiatric disorder. A study by Ahrens & Linden (1996) showed that the same set of predictors could differentiate between suicidal and non-suicidal patients in patients with schizophrenia and depression. This set consisted of rumination, hopelessness, social withdrawal and apathy. The researchers concluded that suicidality is a separate syndrome and stays latently present. It can become manifest as a result ofstress and psychiatric illness. Furthermore, the high repetition rate of suicidal behaviors can be seen as an indication of a long-term vulnerability.

Research

Research into the relationship between hopelessness and suicide (Beck et al., 1999) shows that high levels of hopelessness are a predictor for suicide, even if the highest level of hopelessness was years before a suicide. Studies of the autobiographical memory of suicide attempters illustrate that suicidal patients can be characterized by over-generalized hopelessness after (minor) adverse events (Williams et al., 1996). Participants who had attempted suicide in the past, but were not currently suicidal, were susceptible to mood induction of music composed by Prokovjev, played at reduced speed (Williams et al., 1996). After this mood induction, they were generally less able to formulate positive expectations for their future. In conclusion,

it appears that we can often regard suicidality as a long-term vulnerability that will not automatically disappear after successful treatment of depression. The tendency to react with overgeneralized hopelessness and suicidality to disappointments and setbacks seems to remain present as a personality trait. For the period after discharge, it seems advisable to discuss with both the patient and significant others that suicidal impulses can return, and that it is possible to recognize warning signs of a relapse and to respond preventively. It is not proven that a coherent policy after discharge will lead to reduced numbers of suicide after discharge. However, experiences in Minnesota (Office of the Ombudsman 2002) indicate that it is important for patients and family members to be well informed, for example, by handing over a brochure at discharge. In addition, continuity of care is an important theme in many national and international guidelines for the treatmentof suicidal patients (AAS, 2005; APA, 2003; Appleby et al., 2001; Huisman et al., 2007). Research also indicates that an active, outreach policy after discharge has a preventive effect on suicide rates (Motto & Bostrom 2001; King et al., 2001; Vaiva et al., 2007).

Conclusion

We conclude that in the area of suicide prevention after discharge from inpatient care, there is room for improvement. Only one of the locations studied had a standard procedure in place to prepare patients and their significant others for a possible relapse of suicidality after discharge. Some clinicians seemed to be inclined to avoid ‘difficult’ subjects such as suicidality, especially if a patient had improved during hospitalization. It almost seems as if clinicians suspect that discussing suicide in an exit conversation will evoke suicidal feelings. The results of this study can hopefully contribute to the discussion of policies for suicide prevention after discharge. Sometimes, too little attention is given to the transfer from inpatient to outpatient settings. The long term vulnerability to suicidal behavior seems to require an active, outreaching attitude of clinicians in the post-discharge period, even if a patient refuses care.

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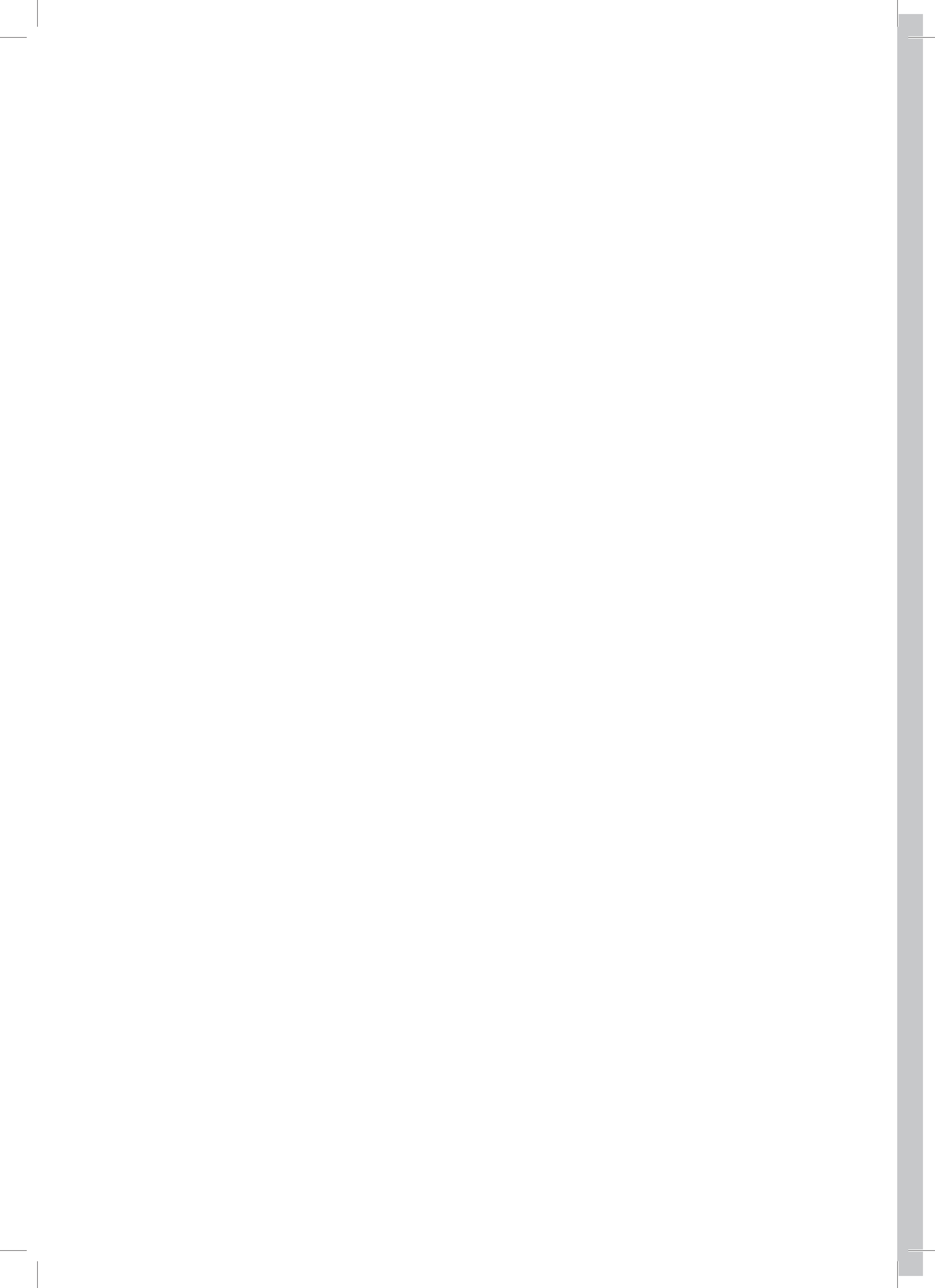
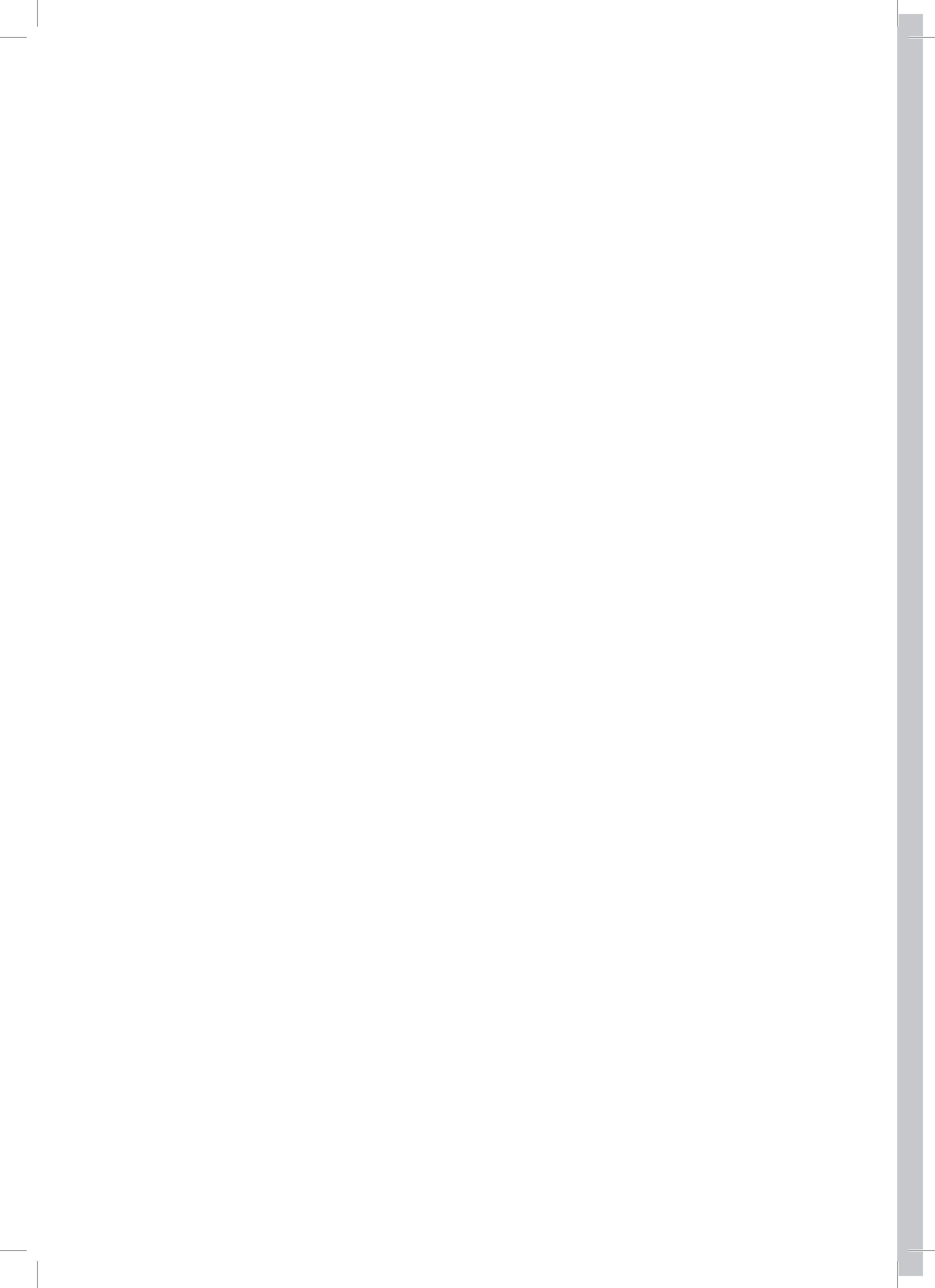


Part IV

Discussion and recommendations for a new supervision procedure



Chapter 9

General discussion

Adequate treatment of mental disorders and suicidal impulses is a cornerstone of suicide prevention. In the Netherlands, a supervision system for suicides in mental health care aims to protect and improve the quality of care provided within mental health services.The goal of this thesis is to evaluate the functioning of this supervision system through:

- A study of guidelines for good clinical care for suicidal patients
- A study of the characteristics of suicides reported to the inspectorate and subsequent responses by inspectors
- A study of the impact of the inspector's reactions on the field

Studies of practical aspects of suicide prevention in mental health care.

In the first part of this thesis, an overview is provided of national and international guidelines for the treatment of suicidal patients. Characteristics of a large sample of mental health care patients who died as a result of suicide are presented, and lessons learned after evaluation of the suicides by clinicians involved are discussed.

In the second part, the suicide notification procedure to the inspectorate is evaluated. In part three, several aspects of mental health care for suicidal patients are examined, illustrating how information extracted from suicide notifications can be used to make recommendations for improved treatment of suicidal patients.

The results and conclusions of the three parts of the thesis will be discussed below.

Part I: The problem: suicides in mental health care services

The Health Care Inspectorate uses the standards accepted within mental health services to assess suicide notifications (Chapter 1). However, national interdisciplinary guidelines for good clinical practices are unavailable in the Netherlands. The development of the first interdisciplinary guideline has recently started (de Winter, van Hemert, Govers, 2008). Therefore, in Chapter 2, an overview of national and international guidelines for the assessment and treatment of suicidal patients is provided as a conceptual framework for good clinical care for suicidal patients.

Most comprehensive and evidence-based guidelines have been published by the American Psychiatric Association (2003), Ministry of Health & New Zealand Guidelines Group (2003), and the British National Institute for Clinical Excellence (2004). Crucial components in the treatment of suicidal patients as described in the reviewed guidelines include regular assessment of the suicide risk of an individual patient, on the basis of protective and risk factors. Subsequent adequate treatment

of suicidal impulses and psychiatric disorders are equally important, including the arrangement of a safety or crisis plan. Involvement of family members and significant others is seen as an essential component of this process. Continuity of care is necessary when treatment settings change, for example, when a patient is discharged from a psychiatric hospital. In most guidelines, special attention is given to the use of no-suicide contracts, generally advising clinicians not to rely on their effectiveness.

Research has shown that outcomes for mental health care patients treated according to evidence-based guidelines are better in term of symptoms, functional status, and quality of life (Drake et al., 2001). However, research has also established that evidence-based practices are not provided to the majority of patients, and that implementation of guidelines is a slow and difficult process (Burgers, Cluzeau, Hunt & Grol, 2003, Verwey, van Waarde, van Rooij, Gerritsen& Zitman, 2007). Specific research on evidence-based practices concerning the assessment and treatment of suicidal patients in mental health care services is scarce. An observational study in England demonstrated that in spite of the national guideline developed by the Royal College of Psychiatrists, there was a wide variety in the general hospital management of self-harm patients (Bennewith, Gunnell, Peters, Hawton, House, 2004). Studies reported to date in the Netherlands also suggest that evidence-based practices can be improved considerably. A study by Verwey et al. (2007) showed that guidelines for the assessment of suicide attempters were available in only a minority of Dutch mental health care services, and although their content was considered to be generally adequate, important elements were lacking. Furthermore, a report on thematic supervision of mental health care for schizophrenic patients with comorbid addiction disorders signalled that the adequacy of systematic suicide risk assessment and the subsequent formulation of a safety plan in this population was insufficient (IGZ, 2009). Furthermore, the study of guideline use in mental health care services regarding suicide prevention after discharge from clinical care, which is presented in Chapter 8, also concluded that policies after discharge can be improved.

An important note with respect to the overview of guidelines in Chapter 2 is that 'evidence-based best practices' in mental health care for suicidal patients are not well established. This has to do with methodological and ethical difficulties in researching the treatment interventions and assessment of suicidal patients. So far, systematic reviews have identified only a few interventions that reduce suicide rates (Mann et al., 2005, Crawford, Thomas, Khan, Kulinskaya, 2007).

In Chapter 3, patient and treatment characteristics of 505 suicides by mental health care patients are provided, including the results of internal evaluations by clinicians involved. Results show that the majority of these patients died by suicide when hospitalised in a mental health care service or within 3 months of discharge (54%). More than two thirds expressed suicidal ideation or behaviours in the two months preceding the suicide, and the majority had a history of suicidal ideations or behaviour. The main diagnoses in the sample were depressive disorders (43%), schizophrenia and other psychotic disorders (28%), and substance disorders (8%). Non-compliance with treatment was reported frequently (52%).

In 26% of the 505 suicide notifications, the clinicians involved or the medical director reported that lessons were learned after the suicide, or that policy changes were installed. Most frequently, these lessons concerned improving communication among clinicians and continuity of care, improving suicide risk assessment procedures, and more involvement of relatives in the treatment and the use or adjustment of treatment guidelines. These points of improvement, and responses made by inspectors to suicide notifications (see Chapter 4), seem to be quite similar to the results of other research, where recommendations were made after the evaluation of suicides by mental health care patients. In comparison, recommendations made on the basis of the National Confidential Inquiry in England (Appleby et al., 2006) included improving policies around the transition from inpatient to community treatment, reduced absconding from inpatient wards, more intense treatment and risk management for at-risk patient groups, and improved policies and outreaching care for non-compliant patients. In this report, a group of 'most preventable suicides' were identified, consisting of 18% of all suicides studied.

In a clinical audit of suicides in users of psychiatric services in Australia, around 20% of the suicides were considered to be preventable. Retrospectively, the main points for improvement in the provision of mental health care were thought to be improved staff-patient relationships, better suicide risk assessment, better treatment of depression and psychological problems and improved continuity of care (Burgess, Pirkis, Morton & Croke, 2000). In another Australian report, a reviewing committee systematically assessed 113 patient suicides, and retrospectively established several inadequacies in treatment provision. The key findings were that in two thirds of the suicides, no psychiatrist was consulted during the assessment of a suicidal patient, and that there were gaps in the documentation of assessment. Furthermore, the treatment provided was considered to be brief, with 59% of the patients receiving only one

or two contacts. Communications with general practitioners was judged to be poor (Mental Health Sentinel Events Review Committee, 2007). Finally, the research team of an in-depth study of 102 suicides in New Brunswick, Canada, concluded that 12% of the suicides could have been avoided, and that in 28%, social and health services did all they could have done. The main criticism of the mental health or addiction services concerned inadequate suicide risk assessment, insufficient continuity of care, and the lack of a proactive, outreaching attitude to disengaged patients and insufficient coordination between mental health, medical and substance abuse services for patients with comorbid disorders (Lesage et al., 2008, New Brunswick & Douglas Hospital Research Centre, 2005).

In conclusion, evaluations of suicides by mental health care patients do result in the identification of flaws in mental health care provision, and reveal possibilities for improvement of policies (Mental Health Sentinel Events Review Committee, 2007, Appleby et al. 2006, Marttin, 2000). However, research into the effects of implementing these improvements in quality of mental health care provision and ultimately suicide rates is scarce. The only known study addressing this question is published by Dennis, Evans, Wakefield & Chakrabarti (2001). After auditing the quality of psychosocial assessment in an accident and emergency department, service improvements were implemented. Three years after this audit, the authors concluded that the quality of assessment of deliberate self-harm had improved substantially; information regarding psychosocial assessment was recorded better and more patients were assessed by a mental health specialist.

Part II: The procedure: supervision of suicides in mental health care services

In Chapter 4, responses made by the inspectorate to the sample of 505 suicide notifications (see Chapter 3) were studied. In 2006, the inspectorate made further inquiries in 37% of the notifications. In the total sample, 227 notifications received follow up: for 104 notifications this concerned requests for further information, for 106 notifications inspectors gave remarks or suggestions for improvement, and for 17 notifications, the clinicians or services involved were contacted. Responses made by inspectors most frequently addressed the question of whether a suicide had been evaluated afterwards by the clinicians involved, and what the results of the evaluation were. The adequacy of treatment for psychiatric disorders, the use

of treatment guidelines and collaboration with other practitioners or services were other important themes in the responses made by inspectors. Follow-up by the inspectorate was more likely when a suicide involved a young patient or a patient treated in a mental health care setting for less than a year, or when the notification was accompanied by the mental health institution's plans for improving its policies. Further questions or remarks posed by the inspectorate occurred less often when a patient was discharged from inpatient care in the three months before the suicide. For only one notification, the inspectorate addressed the use of no-suicide contracts, although the use of a contract was brought up in 23% of the notifications. Compared to 1996-2001, responses made by the inspectorate in the 2002-2006 period more frequently emphasized the importance of suicide risk assessment.

In conclusion, Chapter 4 suggests that the inspectorate might improve supervision of suicides in mental health care by continuing their emphasis on systematic suicide risk assessment, more emphasis on the specific treatment of suicidal impulses (regardless of psychiatric disorders), more attention for the treatment of older patients who are chronically suicidal and for patients recently discharged from inpatient care, and more focus on a restrained use of no-suicide contracts. Based on the results of this study, Chapter 6 of this thesis was written in order to discuss the use of no-suicide contracting.

Up to now, no other supervisory organ that supervises suicides in mental health care has systematically studied responses made to mental health care services. However, the Norwegian Board of Health Supervision did publish a report on suicides reported by mental health care services in 2009. The Board identified several deficiencies in mental health care provision. Criticism made by the Board included inadequate suicide risk assessment and subsequent documentation. Furthermore, breaches of requirements of sound professional practice were also established, such as inadequate patient safety policies, poor follow-up and failures in implementing suicide prevention procedures by proving information and training to staff and clinicians. These points of criticism seem to be in line with both the responses of the Dutch Health Care Inspectorate to suicide notifications and the recommendations made by the National Confidential inquiry, and audits in Australia and Canada (Lesage et al., 2008, Mental Health Sentinel Events Review Committee, 2007, Burgess et al., 2000, Marttin, 2000,)

Chapter 5 reports on a study undertaken to examine the views of medical directors, clinicians and inspectors on the suicide notification system in the Netherlands. Results

of the interviews indicate ambivalence among both medical directors and clinicians regarding the effectiveness of the suicide notification procedure.

The evaluation of events and care preceding a suicide of a patient was unanimously seen as positive in the interviews, and was said to have led, in some cases, to improvement of mental health care. Illustrations of the outcomes of these internal evaluations of a suicide are provided in Chapter 3.

Supervision by the inspectorate was experienced to underline the importance of suicide prevention and to keep both the medical directors and clinicians alert. Another positive aspect of the procedure according to the interviewees was that the supervision system provides external monitoring of quality of care, ensuring detection of malfunctioning institutes or clinicians if necessary. In addition, the inspectorate has stimulated the development of policies on treatment of suicidal patients, although it remains unknown to both medical directors and inspectors to which extent these policies have been implemented.

The main criticism on the suicide notification procedure provided by both medical directors and clinicians concentrates on the atmosphere of guilt or blame surrounding suicides in treatment settings. Certain questions posed by the inspectorate after a suicide were experienced as criticism or blame. This sensitive nature of patient suicides is also described in The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (Appleby et al., 2006), even though the reporting of these suicides is done on an anonymous basis. Reports of the National Inquiry stress that a suicide does not imply the failure of a therapy or therapist. It is apparently essential to underline this to find clinicians willing to openly notify and to change treatment practices. Given the impact a suicide can have on clinicians, this is not surprising (Alexander, Klein, Gray, Dewar & Eagles, 2000, Ruskin, Sakinofsky, Bagby Dickens, Sousa, 2004). In this context, it seems logical that medical directors value the procedure in a slightly more positive light than clinicians, since they use it to improve quality of care, and generally are not involved personally. However, the fact that the inspectorate regards a suicide as a 'calamity' and that it assesses the quality of care provided for every suicide, implied for some medical directors that a suicide is an important signal of inadequate quality of mental health care. Some of the medical directors and clinicians interviewed disagreed with this assumed relationship between suicide and quality of care. Research into the question of when a suicide implies insufficient quality of care is scarce. Desai, Dausey and Rosenheck (2005) conclude that suicide rates most likely are not a useful indicator

of the quality of mental health care. In their exploratory study, no associations were found between suicide rates and facility-level variables such as average length of stay of all psychiatric patients. According to the authors, this suggests that systematic changes in these facility level variables would be unlikely to significantly reduce the number of suicides. On the other hand, a recently published study from Finland shows that the organization of mental health services is associated with suicide rates. In this study, well-developed community-based mental health services had lower rates compared to services where inpatient treatment was more prominent (Pirkola, Sund, Sailas & Wahlbeck, 2009). In conclusion, it is not certain if the quality of mental health care is causally related to suicides by mental health care patients, although the study of Pirkola et al. (2009) at least suggests an association.

Both positive and negative criticisms voiced in the interviews are surprisingly consistent with the outcomes of studies concerning audits of suicides in primary care. King et al. (2005) explored the feasibility of critical incident review after patient suicides in 10 general practices. 12 suicides were reviewed, and as a result, internal communications were improved, bereavement support was set up and the prescribing policies of medication were reassessed. All staff members who had attended the critical reviews were interviewed about how they evaluated the review procedure. Participants were uncertain about what to expect in the review, and more information and guidance about this process was said to help reduce anxiety. The majority of interviewees initially expressed fears of a 'witch- hunt', blame for the patient's death (also by family members of the deceased) and fear of litigation. Some of the interviewees stated that they would not have participated if they had made a mistake. Participants expected reluctance to participate in critical reviews in general, and perhaps not complete honesty. The majority noted that a critical review after a suicide was time-consuming while they already felt pressured. Furthermore, there was consensus that the critical incident review would not be effective in preventing most patient suicides, and that reviewing a suicide could lead to unrealistic expectations. After the actual meeting in which a suicide was reviewed, the meetings were seen as useful; it was beneficial to have an outside facilitator who provided a new perspective, input by family members was considered to be helpful and some stated that it helped improve communication. The perceived key benefit was knowledge gained about suicide in general and the specific risk factors for suicide. Also, the majority said that a main advantage was that the review demonstrated that they had done everything necessary for the patient, which relieved feelings of guilt.

The defensive reactions as voiced in Chapter 5 to the obligation to notify and to responses made by the inspectorate can also be seen in the context of a more general discussion about the most effective manner of reporting on adverse events and improvement of quality of care, that is held both internationally and in the Netherlands (for example; Patient Safety and Quality Improvement Act, USA). This discussion focuses on whether reporting of adverse events should be voluntary or mandatory, and whether it should be 'blame free' or with the possibility that clinicians or institutions are held accountable and measures can follow. Evidence for the effect of both reporting systems is scarce and largely anecdotal. According to some authors, a well functioning reporting system is non-punitive, confidential, independent, timely, system oriented, responsive and uses expert analysis (Leape, 2002). The Dutch notification procedure of suicides is independent, system oriented and it uses expert analysis. Timeliness (the speed at which reports are analyzed) could improve according to interviewees, as could the responsiveness of the system (the inspectorate could give more recommendations on the basis of all suicide notifications received). The confidential aspect of suicide notifications has currently been restored to some degree. This turned out to be an important aspect for the medical directors interviewed. Lastly, the suicide notification system is punitive (clinicians or institutions can be reprimanded by the inspectorate), which arouses anxiety regarding the possibility of prosecution. However, in the last ten years, no legal proceedings have been instituted by the inspectorate solely on the basis of a suicide notification.

Another interesting observation in the interviews was that there were disagreements between medical directors and inspectors about the treatment of suicidal patients, concerning suicide risk assessment, no-suicide contracting and the use of restrictive measures in treatment. Also, there was uncertainty about the standards the inspectorate applies in assessing suicide notifications. However, the inspectorate has to comply with the standards and norms that the mental health field dictates, which is difficult if the field itself has reached no agreement. Hopefully, the development of a Dutch multidisciplinary guideline for the assessment and treatment of suicidal patients can give more clarity for both clinicians and inspectors.

Another striking result of the interviews was the amount of pessimism displayed by clinicians about the possibilities for improving suicide prevention in mental health care, and the effects of the supervision procedure in this regard. None of the clinicians interviewed about patient suicides thought the suicide could have been prevented.

This is a major difference with results from the National Confidential Inquiry, in which around 18% of the clinicians believed that the suicide of their patient could have been prevented (Appleby et al., 2006). In this study, the main factors that could have prevented the suicide according to these clinicians were closer supervision of a patient, better patient compliance and closer contact with a patient's family.

Possible reasons for the difference between Dutch clinicians and clinicians reporting to the National Confidential Inquiry are unclear. An explanation could be that suicides are reported anonymously to the National Confidential Inquiry, which gives clinicians a secure opportunity to critically evaluate the care they provided.

Other explanations for the view of Dutch clinicians with respect to the possibilities of suicide prevention is that practical experience of dealing with suicidal patients can enhance feelings of powerlessness (Upanne, 2000). Several clinicians and scientists have published reports on the difficulties of suicide prevention in mental health care services (Pridmore, Ahmadi, Evenhuis, 2006, Callaly, Berk & Dodd, 2009). Some of the problems are that suicide risk assessment results in a huge amount of false positives, making it impossible to accurately predict which patient is going to die as a result of suicide, and possible tensions between providing the best therapeutic care and managing risk. Within primary practice, such practical problems also led to negativity about suicide prevention. In a study where the usefulness of the critical incident technique in primary care in the audit of suicides was evaluated, general practitioners could not identify substantive preventive measures that would result in a decreased number of suicides (Redpath, Stacey, Pugh, Holmes, 1997).

In contrast to the pessimism of clinicians regarding the possibilities of suicide prevention, mental health care services are given a key role in suicide prevention by a recent Dutch advisory report to the minister of Minister of Health, Welfare, and Sport. This report recommends that mental health care provision be improved, in order to reduce suicide rates (Bool, Blekman, de Jong, Ruiter, Voordouw, 2008). Apparently, scientists and clinicians who systematically assess suicides by mental health care patients (see for example Burgess et al., 2001, or Lesage et al., 2008), and policymakers see more opportunities for suicide prevention within mental health care services than clinicians who have experienced a patient's suicide. In this context, further discussion between researchers and policymakers and the mental health care field seems to be necessary.

To our knowledge, no other research has examined the role of supervision of quality of care for suicidal patients before. The only research on the suicide

notification system known so far is reported by Rønneberg & Walby (2008). This study of suicide notifications in Norway concludes that 19% of suicides by mental health care patients are not reported according to requirements, and that almost none of the institutes seemed to improve quality of care after suicides. However, it seems unlikely that suicides in mental health care are underreported in Holland, since there is a long tradition of notifying the inspectorate, mental health care institutions are legally obliged to notify the inspectorate, and the proportion of suicides under treatment of mental health care services is relatively high. 41% of all suicides a year in the Netherlands concerned mental health care patients in 2007, compared to 25% in the UK (Appleby et al., 2006), and 24% in Victoria, Australia (Burgess et al., 2001). Results from the interviews indicate a reasonable willingness in clinicians to openly notify suicides to the inspectorate, although it cannot be ruled out that some suicides by mental health care patients are not reported. However, it remains unclear to what extent policy improvements after a suicide are implemented in Dutch mental health care services.

In conclusion, the function of the supervision system cannot be described as the inspectorate dictating to mental health care services how to deal with suicidal patients. The utility of the system seems to be more indirect. The inspectorate has a stimulating role, motivating mental health care directors to critically self reflect, and opening discussion about suicide risk assessment, use of no-suicide contracts, continuity of care and the involvement of family members in the treatment of suicidal patients. However, there seems to be ambivalence about the usefulness of the procedure. The main points of criticism seem to centre around the issue of guilt implied by the preventability-driven work of the inspectorate and the focus on individual notifications instead of on structural problems.

Part III: The Practice: Aspects of suicide prevention in mental health care services

In Chapter 6, the use of no-suicide contracting is discussed. In 23% of the 505 suicide notifications studied in Chapters 3 and 4, a no-suicide arrangement was in place. In this chapter, the literature on the effectiveness of no-suicide contracting is summarized (also see McConnell Lewis, 2007). Clear evidence on the effects of no-suicide contract is lacking. Therefore, we conclude that no-suicide contracts are no guarantee that a patient will not die by suicide, and that contracts can have negative

side effects, such as impaired or less open communication between clinicians and patients (Farrow, Simpson, Warren, 2002). Alternatives to a no-suicide contract are proposed, such as suicide risk assessment, commitment to treatment statement and a postponement agreement, with potentially less negative side effects or more positive outcomes. Prospective research into their effectiveness is recommended.

In Chapter 7, psychiatric and demographic characteristics collected in the study described in Chapters 3 and 4, are used to answer the question of whether psychiatric diagnoses were associated with suicide methods. The results showed that psychotic disorders were associated with jumping from heights, and substance-related disorders were associated with self-poisoning. Depressive disorders were not associated with any particular suicide method. Male patients preferred hanging, female patients self-poisoning. Inpatients preferred jumping in front of a train, outpatients self-poisoning. Bipolar patients preferred jumping in front of a train to hanging. Although these results do not offer insight into the psychological mechanisms for the selection of suicide methods, possible means of suicide prevention are suggested by this study. This includes limiting access to tall buildings or structures to patients with psychotic disorders; careful prescription of medication to female patients and particularly to patients with substance-related disorders; and limiting easy access to railways near clinical settings to patients with bipolar and psychotic disorders. Limiting access to means of suicide may be less effective for suicidal patients with depressive disorders who may switch to other available methods.

In Chapter 8, a study on policies in mental health care services for the prevention of post-discharge suicides is presented. One out of 10 locations of mental health care services had a standard policy for the prevention of suicide after discharge from psychiatric care. Four locations had an informal policy and 5 an ad hoc policy. Mental health care providers had different views regarding suicide prevention and the responsibility of mental health care centres for the prevention of post-discharge suicide. The main differences centred around the question whether effective treatment of psychiatric disorders was sufficient for suicide prevention, or that suicidal impulses need specific attention after discharge.

In conclusion, only half of the mental health institutions employed a preventive policy regarding post-discharge suicide. So far, it seems that the possibilities for prevention have not been fully utilised.

Limitations and strengths

This research has several limitations, mainly concerning the methodologies used. Firstly, it is scientifically almost impossible to quantitatively measure the effects of supervision by the inspectorate of the quality of mental health care, or the number of suicides by those in contact with mental health care services. The reasons for this lie mainly in the fact that the procedure has been in operation for years (so no pre- post measurement design is possible), the difficulties of operationalising possible effects of supervision, and difficulties in distinguishing between activities undertaken by mental health care services themselves and the contributions of the inspectorate. Also, neither inspectors nor medical directors have full insight into the extent to which proposed policy changes are actually implemented. Further research is needed in this respect.

Secondly, the nature of the collected data is mainly qualitative. There are numerous methodological difficulties inherent to qualitative research methods (Giacomini & Cook, 2000), even though several actions have been undertaken to enhance the reliability of the data.

Furthermore, a shortcoming of the study presented in Chapter 2, is that no control group of matched mental health care patients was used.

Another limitation is that for privacy reasons, we could not interview relatives of deceased patients who were in contact with mental health care services. They could have provided new and perhaps critical information. Another possibility for research could have been the comparison of responses to suicide notifications between inspectors and a team of experts or experienced clinicians. In addition, the study design did not allow for research into possible differences between inspectors in assessing suicide notifications, although indications of different response styles were found.

The main strengths of the current studies are the size and representativeness of the samples used. All suicide notifications sent to the inspectorate over the last 10 years were available to the researchers, resulting in a comprehensive and highly representative sample of suicide notifications. In addition, suicide notifications contain detailed information about both patient characteristics and the treatment, providing a unique research opportunity. Furthermore, the interviews with both clinicians and medical directors concerned actual cases, and the sample was drawn nationwide. In addition, the response rate of both mental health care directors and

clinicians was high, further enhancing the representativeness of the sample. All inspectors who deal with suicide notifications were interviewed.

Another strength of the current thesis is that it is the first study that provides insight into the functioning of the supervision procedure, which is useful for both the inspectorate and for mental health care services. Also, the current research illustrates the advantages of collecting data on suicides in mental health care. A direct result, for example, is the article about the relationship between psychopathology and suicide methods.

Part IV: Recommendations for an improved procedure

On the basis of all research summarized and discussed in this thesis, recommendations can be made for the optimal functioning of the supervision procedure. From the interviews and literature, it becomes clear that there is broad support for auditing after a suicide. Clinicians and medical directors generally valued supervision by the inspectorate on patient suicides. Their main points of criticism centred on the 'blame' component of the procedure, the need for more feedback after reporting a suicide, and recent legal developments concerning suicide notifications. Theoretical and practical recommendations that can be derived in this respect are.

Transparency of the procedure

The inspectorate needs to be clearer about their criteria for assessing suicide notifications, and what they consider to be good clinical care for suicidal patients. This includes a clear definition of a 'calamity' and a clear communication of the reasons why a suicide should be reported to the inspectorate.

Until a multidisciplinary guideline for the assessment and treatment of suicidal patients is available, it is not possible for the inspectorate to adopt the Dutch mental health care field's norms for good clinical care. International guidelines are available and can be used by the inspectorate. At present, only guidelines for treatment of mental disorders are available in the Netherlands. However, adequate treatment of mental disorders alone does not necessarily guarantee suicide prevention or adequate treatment of suicidal impulses. An illustration of this point is that inspectors tended to react less frequently to suicide notifications where a patient was recently discharged from inpatient care (Chapter 4). Notable in the notifications concerning patients who were recently discharged from inpatient care was that the symptoms of

the psychiatric disorder had reduced, but the patient nonetheless died as a result of suicide.

There could be several benefits of clearly described supervisory standards of the inspectorate, including fewer differences between the assessments of notifications by different inspectors, and reduced anxiety in the mental health care field regarding repercussions from the inspectorate.

Reconsideration of the primary aim of supervision on suicide in mental health care

The results of this thesis show that it was not always clear to the mental health care field what the primary goal of the suicide notification procedure is. Is it the detection of structural flaws in mental health care provision, stimulating evaluation after a suicide and adoption of best practices, or is it the detection of malfunctioning services or practitioners? The answer to this question has significant implications for the evaluation of supervision of suicides in mental health care. If the prime objective of the procedure is to detect malfunctioning services and practitioners, the answer would be that either the procedure does not seem to be effective, or that there are no malfunctioning services or practitioners at all. In the last ten years, no legal proceedings have been instituted by the inspectorate solely on the basis of a suicide notification. Furthermore, this goal could imply that only those suicides where a relationship with quality of mental health care provision exists should be reported to the inspectorate. If detection of malpractice is not the primary objective of the notification procedure, the inspectorate should consider that fear of prosecution can influence the openness of suicide notifications, reduce the learning effects of the procedure and can induce the practice of defensive medicine.

When the main objective of the procedure is to detect structural flaws in the organisation and provision of mental health care, it is counter-intuitive that the main focus of the procedure lies on individual suicide notifications. Within the inspectorate, there are no systematic procedures for collecting and analysing reports, such as all suicides reported from mental health care services to the inspectorate in a year. Medical directors and clinicians that were interviewed (Chapter 5) commented that they would value such feedback.

In conclusion, if the second goal should prevail, less focus on individual notifications could be beneficial. Individual clinicians could feel less criticized or

threatened, and there would be more focus on structural problems in the quality of the mental health care provided.

Use of data in suicide notifications

Suicide notifications sent to the inspectorate contain a source of unique and valuable information. The inspectorate does not systematically analyse or report on data on patient and treatment characteristics, nor on outcomes of internal evaluations or supervision, such as the national confidential inquiry (Appleby et al., 2006).

If the inspectorate were to report on characteristics of all suicide notifications received from all individual mental health care services in one year, this could provide feedback for both clinicians and policymaking and an opportunity for benchmarking, and could also promote research on suicidality.

Overall effects of evaluating suicides

In the opinion of the author, it is not sufficient for the development of adequate suicide prevention policies in mental health care services if inspectors evaluate individual suicides occurring under mental health care only. In this regard, if the inspectorate wants to ensure good quality care for suicidal patients, it has to broaden its strategy. Knowledge about the extent to which prevention strategies are implemented within a mental health care service is an important aspect, as is the level of adequate training and skills of clinicians dealing with suicidal patients. If only individual suicides and near-suicides are assessed by the inspectorate, the danger is that the emphasis will lie on incidents, instead of more general flaws in prevention activities.

Towards A New Model

On the basis of the results of this thesis presented here, we want to propose a new model to improve supervision of suicides in mental health care. In this new model, the current suicide notification procedure has been adjusted. There is less attention to and emphasis on individual notifications and more emphasis on structural problems in mental health care provision and general suicide prevention policies within the services. The new model is in line with the Health Care Institutions Quality Act and developments in supervisory methods regarding more optimal learning after reporting incidents (Legemaate, Christiaans-Dingelhoff, Doppegieter, de Roode, 2006, Vesseur & van der Wal, 2007). The model is presented in Figure 1.

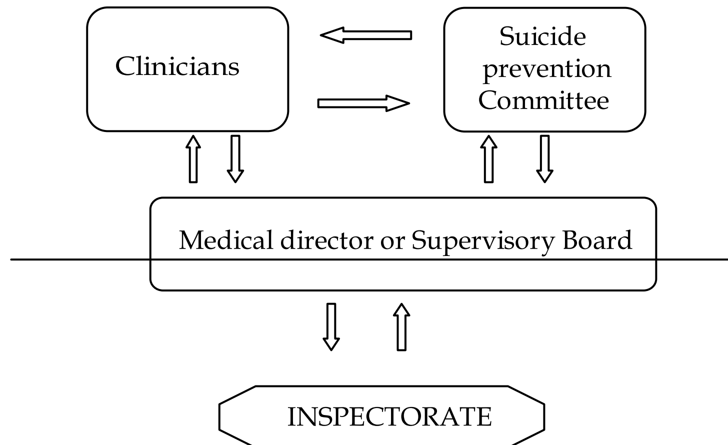


Figure 1

In the new model, a vital condition is that a suicide prevention committee should be present within each mental health care service for more optimal evaluation of suicides within mental health care services. A logical requirement in this context is that suicide prevention committees should possess sufficient knowledge of prevention and treatment of suicidal behaviour, and have the means to implement proposed policies.At present, only a minority of the Dutch mental health care services have suicide prevention committees. In the proposed new model, the suicide prevention committee provides a peer review and can evaluate suicides in the context of the service's suicide prevention policy, and make recommendations for further policies. Another important advantage is that the committee can engage in the development and implementation of suicide prevention activities, ensuring attention for suicide prevention within the service. Notable is that the aim of a suicide prevention committee is learning from a suicide, and not to identify malpractices.

Furthermore, it is highly recommended that every mental health care servicedevelops a written suicide prevention policy, which is implemented in full. These conditions are, of course, only feasible for large mental health care services, and to a lesser extent for small practices or private practitioners.

Since suicides are considered calamities by the Health Care Institutions Quality Act, services must keep reporting suicides of mental health care patients to the inspectorate. In the new model, these suicide notifications are anonymous and must contain:

- A description of patient characteristics, the treatment provided and the circumstances surrounding the suicide.
- Outcomes of the evaluation of the suicide by the suicide review committee.
- Measure taken to improve policies (optional).

The content of a suicide notification is generally the same in the new and current procedure, although the reports can be shortened. In this new model, suicide notifications will (initially) be made anonymous with respect to both the patient's and clinician's name and personal information.

For the inspectors dealing with suicide notifications, the subsequent procedure can be threefold:

1) Inspectors screen the notifications on malpractice and negligence. The standards of care for suicidal patients and what constitutes malpractice can be derived of the Dutch multidisciplinary guidelines for the assessment and treatment of suicidal patients, which currently are under development.
   If an individual notification suggests a possibility of malpractice, the response of the inspectorate depends on the measures a mental health care service has taken itself to deal with the reported flaws in health care provision or an individual clinician. Only if a mental health care service has not dealt with the malpractice in an adequate way can inspectors start further investigation of the case. Under these conditions, inspectors will ask for the names of the patient and the clinicians involved and the suicide notification is then no longer anonymous. Subsequently, inspectors can start their own investigation of the case.
2) Characteristics of each suicide are added to a database, which will contribute to knowledge about suicides in mental health care. For this purpose, the inspectorate makes a new format for suicide notifications with precoded questions.
   The data are analysed periodically and reports with statistics, data and recommendations for practice and policies will be published. This knowledge will enable the inspectorate to make more general recommendations regarding suicide prevention in mental health care.
3) Every year, inspectors pay regular visits to mental health care services, and have the opportunity to discuss all suicide reports that were sent the preceding year. Trends within the service and in general can be discussed, as well as more specific themes in suicide reports, such as continuity of care. Policies and outcomes of a specific mental health care service can also be compared with the outcomes of the

general report concerning suicides in mental health care as mentioned in point 2, which provides an opportunity for benchmarking.

The proposed model has several advantages over the existing procedure and solves some of its problems. It is expected that in this new model, opportunities for suicide prevention in mental health care services will be used more optimally. The model encourages the establishment of suicide prevention committees, which can provide timely feedback to clinicians. Furthermore, it is possible to compare different mental health care services in terms of suicide prevention policies.

The inspectorate still supervises the functioning of internal quality systems and evaluations, and can demand the improvement of suicide prevention policies. In the new model, there is less emphasis on individual suicide notifications and more attention to structural flaws in mental health care provision and prevention policies.

The model is in line with the Health Care Institutions Quality Act, which obliges the inspectorate to judge whether mistakes have been made or whether services have taken measures to prevent recurrence of an incident. If these conditions have not been met, the inspectorate can start their own investigation.

Furthermore, the new model also fits within 'blame free' internal reporting of incidents, as proposed by Vesseur & van der Wal (2007). These inspectors called for a separate and internal notification system within (mental) health care services, in which clinicians can 'safely' report incidents. The inspectorate guarantees that information from this system about incidents will never be accessed or used by the inspectorate. Advantages of such a system could be that clinicians are more willing to report incidents as a consequence of reduced fear for repercussions. This would result in improved detection of structural flaws in care provision. Hopefully, in this 'safe' reporting system, clinicians who report suicides within their mental health care service will be less anxious about the consequences of reporting, resulting in more improvement of policies and reducing structural flaws. However, since suicide is a calamity that has to be reported to the inspectorate by law, some anxiety among clinicians can be expected to persist. This tension between openly reporting incidents and the reporting of calamities to the inspectorate, after which measures can follow, has to be solved by both the inspectorate and the law. As long as the law does not change, this tension will remain.

Finally, an important condition for the optimal functioning of the proposed new model is that the inspectorate discusses its procedures thoroughly with the mental

health care field. Although this model is based on the results of the current research, the possible advantages must be studied in future research.

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Summary

In the Netherlands, a supervision system of suicides in mental health care aims to protect and improve the quality of care provided within mental health services. The aim of the current thesis is to evaluate the functioning of this supervision procedure.

In Chapter 1, the research questions of this thesis are presented. Furthermore, this chapter contains information about supervision by the Health Care Inspectorate and the background and aims of supervision of suicides by mental health care patients.

The Health Care Inspectorate uses the standards accepted within mental health services to assess suicide notifications, but a national interdisciplinary guideline for good clinical practice is not available in the Netherlands. Therefore, an overview of national and international guidelines for the treatment of suicidal patients is provided in Chapter 2, as is a conceptual framework for good clinical care. In the guidelines reviewed, main components in the treatment of suicidal patients are regular assessment of the suicide risk, adequate treatment of psychiatric disorders and suicidal impulses, involvement of family members and significant others, and continuity of care.

In Chapter 3, patient and treatment characteristics of 505 suicides by mental health care patients are provided, including the results of internal evaluations by clinicians involved. Results show that the majority of these patients died by suicide when hospitalised in a mental health care service or within 3 months of discharge (54%). More than two thirds (68%) expressed suicidal ideation or behaviours in the two months preceding the suicide, and the majority had a history of suicidal ideations or behaviour (94%). Main diagnoses in the sample were depressive disorders (43%), schizophrenia and other psychotic disorders (28%), and substance disorders (8%).

In 26% of the 505 suicide notifications, the clinicians involved or the medical director reported that lessons were learned after the suicide, or that policy changes were installed. Most frequently, these lessons concerned improving communication among clinicians and continuity of care (n=52), improving suicide risk assessment procedures (n=32), more involvement of relatives in the treatment (n=16)and the use or adjustment of treatment guidelines (n=15).

In Chapter 4, responses made by the inspectorate to the sample of 505 suicide notifications (see chapter 3) were studied. In the total sample, 227 notifications received follow up: for 104 notifications this concerned requests for further information, for 106 notifications inspectors gave remarks or suggestions for improvement, and for 17

notifications the clinicians or services involved were contacted. Responses made by inspectors most frequently addressed whether a suicide had been evaluated by the clinicians involved, and what the results of this evaluation were. Also, the adequacy of treatment for psychiatric disorders, use of treatment guidelines and collaboration with other practitioners or services were important themes in the responses made by inspectors. Follow-up by the inspectorate was more likely when a suicide involved a patient treated in a mental health care setting for less than a year (χ^2=4,39, df=1, p=0.04), or when the notification was accompanied by the mental health institution's plans for improving its policies (χ^2=14,41, df=1, p<0.01). Further questions or remarks posed by the inspectorate occurred less often when a patient was discharged from inpatient care in the three months before the suicide (χ^2=4,52, df=1, p=0.03). In only one notification, the inspectorate addressed the use of no-suicide contracts, although the use of a contract was brought up in 23% of the notifications. Compared to 1996-2001, responses made by the inspectorate more frequently emphasized the importance of suicide risk assessment in the period 2002-2006 (37% vs 19%; χ^2=6.4, df=1, p=0.01). In conclusion, chapter 4 suggests that the inspectorate might improve supervision on suicides in mental health care by continuing their emphasis on systematic suicide risk assessment, and by giving more attention for the treatment for patients recently discharged from inpatient care, and more focus on a restrained use of no-suicide contracts.

Chapter 5 reports on a study undertaken to examine the views of medical directors (n=28), clinicians (n=30) and inspectors (n=15) on the suicide notification system in the Netherlands. Results of the interviews indicate ambivalence in both medical directors and clinicians concerning the effectiveness of the suicide notification procedure.

The evaluation of events and care preceding a suicide of a patient was unanimously seen as positive in the interviews. Supervision by the inspectorate was experienced to underline the importance of suicide prevention and to keep both the medical directors and clinicians alert. Another positive aspect of the procedure according to the interviewees was that the supervision system provides external monitoring of quality of care, ensuring detection of malfunctioning institutes or clinicians if necessary. In addition, the inspectorate has stimulated the development of policies for the treatment of suicidal patients. The main criticism on the suicide notification procedure provided by both medical directors and clinicians concentrates on the atmosphere of guilt or blame surrounding suicides in treatment settings.

It is concluded that the inspectorate has a stimulating role, motivating mental health care directors to critically self reflect, and opening discussion about suicide risk assessment, use of no suicide contracts, continuity of care and the involvement of family members in the treatment of suicidal patients. Main points of criticism seem to center around the issue of guilt implied by the preventability driven work of the inspectorate and the focus on individual notifications instead of structural problems.

In Chapter 6, the use of no suicide contracting is discussed. In 23% of the 505 suicide notifications studied in chapter 3 and 4, a no-suicide arrangement was entered. However, clear evidence on the effects of a no-suicide contract is lacking. No-suicide contracts are no guarantee that a patient will not die by suicide, and they can have negative side effects. Alternatives to a no-suicide contract are proposed, such as suicide risk assessment, commitment to treatment statement and a postponement agreement, with potentially less negative side effects or more positive outcomes.

In Chapter 7, psychiatric and demographic characteristics collected in the study described in chapter 3 and 4, are used to answer the question if psychiatric diagnoses were associated with suicide methods. The results showed that psychotic disorders were associated with jumping from heights ($OR=3.42$, $p<0.05$), and substance-related disorders were associated with self-poisoning ($OR=4.13$, $p<0.05$). Depressive disorders were not associated with any particular suicide method.

In Chapter 8, a study into policies in mental health care services for the prevention of post discharge suicides is presented. One out of 10 locations for mental health care services had a standard policy for the prevention of suicide after discharge from psychiatric care. Four locations had an informal policy and 5 an ad hoc policy. In conclusion, only half of the mental health institutions employed a preventive policy regarding post-discharge suicide. Possibilities for prevention might not be fully utilised.

In Chapter 9, the findings of this thesis are discussed and the main conclusions are presented. Several methodological issues concerning the validity of the study are discussed. Finally, a new model for supervision based on the results of this current thesis is presented. In this new model, it is recommended that mental health care services employ a suicide prevention committee and thoroughly implement guidelines for the care of suicidal patients. Furthermore, in the proposed model there is less attention and emphasis on individual notifications and more emphasis on structural problems in mental health care provision and general suicide prevention

policies within mental health care services. It is hoped that this thesis can contribute to the optimal functioning of the supervision system of suicides in mental health care.

Samenvatting

De meldingsprocedure van suïcides aan de Inspectie voor de Gezondheidszorg heeft tot doel de kwaliteit van zorg in Nederland te waarborgen en te verbeteren. In dit proefschrift wordt het functioneren van deze vorm van toezicht geëvalueerd.
In Hoofdstuk 1 worden de onderzoeksvragen van het proefschrift gepresenteerd. Verder bevat dit hoofdstuk achtergrondinformatie over de inspectie en toezicht op suïcides door patiënten die onder behandeling zijn van de geestelijke gezondheidszorg (GGZ).

De Inspectie voor de Gezondheidszorg hanteert de algemeen geaccepteerde normen voor kwaliteit van zorg die binnen de GGZ gelden om meldingen van suïcides te beoordelen. In Nederland is echter tot dusverre geen interdisciplinaire richtlijn voor de behandeling van suïcidale patiënten voorhanden. Daarom wordt in Hoofdstuk 2 een overzicht gepresenteerd van alle nationale en internationale richtlijnen voor de risico-inschatting en behandeling van suïcidale patiënten, als uitgangspunt van goede kwaliteit van zorg. De kern van deze richtlijnen bestaat uit het regelmatig inschatten van het suïciderisico, adequate behandeling van psychiatrische stoornissen en suïcidale impulsen, het betrekken van naasten in de behandeling en continuïteit van zorg.

In Hoofdstuk 3 worden patiënt- en behandelkenmerken beschreven van een steekproef van 505 suïcides door GGZ patiënten, inclusief de resultaten van interne evaluaties van de betrokken behandelaren achteraf. De resultaten laten zien dat het merendeel van de patiënten stierf tijdens een klinische opname of binnen 3 maanden na ontslag (54%). Meer dan tweederde (68%) uitte zich suïcidale in de twee maanden voor de suïcide en het merendeel had een voorgeschiedenis van suïcidaliteit (94%). De belangrijkste hoofddiagnosen waren een depressieve stoornis (43%), schizofrenie en andere psychotische stoornissen (28%) en verslaving (8%). In 26% van de 505 suïcidemeldingen rapporteerden de betrokken behandelaren of de eerste geneeskundige dat er leerpunten naar voren waren gekomen uit de evaluatie van de suïcide, of dat beleidswijzigingen waren doorgevoerd. Deze leerpunten betroffen veelvuldig het verbeteren van communicatie tussen behandelaren en de continuïteit van zorg (n=52), het verbeteren van methoden van risicotaxatie (n=32), het meer betrekken van het systeem rond een patiënt bij de behandeling (n=16) en het gebruik of het aanpassen van behandelrichtlijnen (n=15).

In Hoofdstuk 4 worden de reacties van inspecteurs op de steekproef van 505 suïcidemeldingen nader bekeken (zie Hoofdstuk 3). Van de totale steekproef kregen 227 meldingen een nadere inhoudelijke reactie: voor 104 meldingen betrof dit vragen om verdere informatie, bij 106 meldingen gaven inspecteurs opmerkingen of suggesties voor verbetering en bij 17 meldingen werd persoonlijk gesproken met de betrokken behandelaren of de directie. Inhoudelijke reacties van inspecteurs betroffen veelal de vraag of een suïcide was geëvalueerd en de uitkomsten hiervan. Andere belangrijke thema's in de reacties van inspecteurs betroffen de adequaatheid van de behandeling van psychiatrische stoornissen, het gebruik van behandelrichtlijnen en de samenwerking met andere hulpverleners of instellingen. Een nadere inhoudelijke reactie door inspecteurs werd vaker gegeven wanneer de suïcide een patiënt betrof die korter dan een jaar onder behandeling was van de GGZ, of wanneer in een melding leerpunten werden geformuleerd.

Nadere vragen of opmerkingen kwamen minder vaak voor wanneer een patiënt was ontslagen uit klinische zorg in de 3 maanden voor de suïcide. In slechts één melding bracht een inspecteur het gebruik van non-suïcide contracten ter sprake, hoewel het gebruik van dergelijke contracten in 23% van de steekproef werd gerapporteerd. Vergeleken met de meldingen uit de jaren 1996-2001, benadrukten reacties van inspecteurs het belang van het inschatten van suïcidaliteit vaker in meldingen uit de periode 2002-2006. Aanbevelingen zijn dat de inspectie haar toezicht kan verbeteren door de nadruk op risicotaxatie te behouden en door meer aandacht te besteden aan de behandeling van patiënten die recent zijn ontslagen uit klinische zorg en meer aandacht voor het gebruik van non-suïcidecontracten.

In Hoofdstuk 5 worden de uitkomsten van interviews met eerste geneeskundigen (n=28), hulpverleners (n=30) en inspecteurs (n=15), over hun visie op de suïcide meldingsprocedure, beschreven. Analyse van de resultaten duiden op ambivalentie bij zowel eerste geneeskundigen als hulpverleners wat betreft de effecten van de procedure. De evaluatie van gebeurtenissen en verleende zorg voorafgaande aan een suïcide werden unaniem als positief beschouwd. Toezicht door de inspectie onderstreepte hierbij het belang van suïcidepreventie en hield zowel eerste geneeskundigen als behandelaren alert. Een ander positief aspect van de procedure volgens de geïnterviewden was extern toezicht op de kwaliteiten van zorg, waardoor disfunctionerende instellingen en behandelaren kunnen worden opgespoord. Hiernaast heeft de inspectie de ontwikkeling van beleid voor de behandeling van suïcidale patiënten gestimuleerd. De belangrijkste kritiek op de meldingsprocedure

van zowel eerste geneeskundigen als hulpverleners betrof de sfeer van schuld en verwijt die suïcides in de GGZ omringt. In de conclusies van dit onderzoek komt naar voren dat de inspectie een stimulerende rol heeft gehad, die motiveerde zelfkritisch te reflecteren en de discussie heeft geopend over behandelnormen rond risicotaxatie van suïcidaliteit, het gebruik van non-suïcidecontracten en het betrekken van het steunsysteem van een patiënt in de behandeling. Aandachtspunten voor de verbetering van de procedure betroffen de sfeer van schuld en de focus op individuele meldingen in plaats van structurele problemen.

In Hoofdstuk 6 wordt het gebruik van non-suïcidecontracten bediscussieerd. In 23% van alle 505 suïcidemeldingen (zie hoofdstuk 3 en 4) werd het gebruik van een contract gemeld. Er is echter weinig wetenschappelijke evidentie voor de werkzaamheid hiervan. Non-suïcidecontracten geven geen garantie dat een patiënt niet om het leven zal komen door suïcide en kunnen mogelijk ook negatieve effecten hebben. Alternatieven voor het non-suïcidecontracten worden voorgesteld, zoals taxatie van het suïciderisico, een "commitment to treatment statement" en een uitstel van suïcide overeenkomst, met mogelijk minder negatieve consequenties en positievere behandeluitkomst.

In Hoofdstuk 7 worden de psychiatrische en demografische kenmerken van patiënten, die zijn verzameld in hoofdstuk 3 en 4, gebruikt om de vraag te beantwoorden of er een relatie bestaat tussen psychiatrische diagnose en de methode van suïcide. De resultaten lieten onder andere zien dat psychotische stoornissen waren geassocieerd met het springen van hoogten en dat verslaving aan middelen was geassocieerd met zelfvergiftiging. Depressieve stoornissen vertoonden geen samenhang met een specifieke suïcide methode.

In hoofdstuk 8 wordt een onderzoek naar beleid in GGZ instellingen rond de preventie van suïcide na ontslag uit klinische opname gepresenteerd. Een van 10 locaties van GGZ instellingen had een formeel beleid voor de preventie van suïcide na ontslag. Vier locaties hadden een informeel beleid en 5 een ad hoc beleid. Geconcludeerd wordt dat in slechts de helft van GGZ instellingen een preventiebeleid aanwezig was voor suïcide na ontslag. Er zijn nog preventiemogelijkheden die onbenut worden gelaten.

In hoofdstuk 9 worden de resultaten van dit proefschrift bediscussieerd en de belangrijkste conclusies getrokken. Verschillende methodologische beperkingen van de studies worden besproken. Tenslotte wordt een nieuw model voor toezicht voorgesteld, gebaseerd op de onderzoeksresultaten. In dit nieuw model is minder

aandacht en nadruk op individuele meldingen van suïcide en meer aandacht voor het opsporen van structurele problemen en het algemene suïcidepreventiebeleid in GGZ instellingen. Verder wordt aanbevolen dat alle GGZ instellingen een suïcide preventiecommissie aanstellen en richtlijnen voor de zorg van suïcidale patiënten implementeren. Hopelijk kan deze these bijdragen aan het optimaliseren van toezicht op kwaliteit van zorg voor suïcidale patiënten onder behandeling van de GGZ.

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