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Don't forget : contributions to the assessment and management of suicide attempters in the general hospital

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Chapter 8 – Reassessment of suicide attempters at home, shortly after admittance to a general hospital

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Submitted

ABSTRACT

Objective

To compare a systematic assessment of suicide attempters in the general hospital with a reassessment at home, shortly after discharge.

Method

Similar instruments were used to assess patients in hospital and at home. Additionally, patients were questioned about their aftercare arrangements.

Results

Fifty-two patients were included in the study. Reassessments at home did not differ significantly from the initial assessment. However, patients' motives for the suicide attempt changed to less impulsive and more suicidal, worrying was significantly higher, and self-esteem was significantly lower. A third of the patients had forgotten their aftercare arrangements. Most patients who had initially felt no need for help changed their minds at reassessment.

Conclusion

Although assessments in the hospital and at home were comparable, the patients' condition at home was somewhat worse than in the hospital, and few patients remembered their aftercare information, suggesting that additional strategies for the hospital assessment of suicide attempters should be developed.

INTRODUCTION

At least 23% of suicide attempters presented to a general hospital repeat their suicide attempt and 3-5% will commit suicide within 5-10 years (Hawton, Zahl, & Weatherall, 2003; Zahl & Hawton, 2004). Up to now, no evidence-based prevention strategies are available (Hawton et al., 1998). However, there is some evidence that psychiatric assessment after the attempt decreases the risk of further attempts and completed suicide (Hickey, Hawton, Fagg, & Weitzel, 2001). This is remarkable, as it is often difficult to assess suicide attempters adequately during their stay in the general hospital (Hengeveld, Kerkhof, & van der Wal, 1988). Several reasons for this assessment problem can be mentioned.

Firstly, it is questionable whether patients are able to appraise their situation and their need for care properly. Their power of judgment may be compromised by emotions, cognitive impairment as well as by drug and alcohol intoxication (Dieserud, Roysamb, Ekeberg, & Kraft, 2001; Evans, Williams, O'Loughlin, & Howells, 1992; Verwey, Eling, Wientjes, & Zitman, 2000). Secondly, psychiatric assessment is also hampered by the hassle in which it has to take place: an unquiet room, disturbances because of somatic investigations and time pressure, as suicide attempters are often only allowed to stay for as long as somatic care is needed. If these impediments of proper psychiatric assessment could be overcome, the preventive effect of the assessment might be larger as it may have more impact on the patient and lead to more appropriate treatments. A way to accomplish this is to reassess patients when the emotions of acute admission are eased, intoxications are less probable and the hassles of the emergency room are left behind.

We aimed to compare the results of a reassessment at their own homes of a group of suicide attempters after discharge from the hospital with the initial assessment in the hospital. When discrepancies indeed are large enough, this would warrant further investigation.

Additionally, at home it was examined whether patients expressed other needs for help than when interviewed at the hospital. Furthermore, the recollection of the arrangements for aftercare made in the hospital was investigated at home, as well as the patients' hindsight opinion about their appraisal of competency at the initial assessment.

MATERIAL AND METHODS

Sample

All patients present to the Rijnstate Hospital (a large general teaching hospital in the Netherlands with a catchment area of 300,000 people) after a suicide attempt were included if they were cooperative and could read Dutch. Patients with the following criteria were excluded; age under 18 years (because the instruments used were not developed for younger people), a lack of capacity due to a somatic disorder, or a diagnosis of delirium, dementia, or amnesic disorder according to DSM IV criteria (American Psychiatric Association, 1994). Patients with a treatment plan in accordance with their mental health care provider in which it was anticipated how to handle cases of suicide attempts, and those who had to be admitted to a psychiatric hospital were also excluded. The Medical Ethical Review Committee of the hospital approved the study.

Procedure

All suicide attempters were assessed according to the hospitals' guidelines. First, the psychiatric consultant investigated whether the patient was alert, capable, and willing to be interviewed. If so, the patients were asked to participate in both an assessment in the hospital, and a second assessment to take place at home after discharge. After written informed consent was obtained, a research nurse administered the self-reported questionnaires (T1). A research nurse made an appointment for the follow-up assessment at home within 7 days after discharge. Before discharge, the arrangements for follow-up care were communicated to the patient both verbally and also on paper. For example, arrangements were made for support from significant others, use of medication, how to handle recurrent suicidality, and a referral for mental health care.

At home (T2), the research nurse again administered the questionnaires and the patients were asked whether they knew if arrangements had been made for their aftercare, and by whom. In case of emergency, the hospital psychiatrist could be consulted.

Measurements

- 1 *Suicide Intent Scale (SIS)* (Beck, Schuyler, & Herman, 2006). This self-report questionnaire assesses suicide intent with 15 items, each scored 0, 1 or 2, yielding a possible range of sum scores from 0 to 30. To further analyse the intentions, the objective (items 1 to 8) and subjective (items 9 to 15) subscales were used.

- 2 *Motives for Parasuicide Questionnaire (MPQ)* (Bancroft et al., 1979). This self-report questionnaire explores the motives people may have for engaging in suicidal behaviour. Each item is scored according to the relevance the patient gives as to why he or she carried out the suicide attempt. For this study the original 3-point scale was changed to a 7-point version to better determine minor changes, ranging from -3 ('strongly disagree') to $+3$ ('strongly agree'). For further analysis, the factor composition used as a part of the WHO/EURO Parasuicide Study (Hjelmeland et al., 2002) was adopted, resulting in four subscales: 'Care Seeking' (4 items), 'Influencing Others' (3 items), 'Temporary Escape' (2 items), and 'Final Exit' (4 items), and a separate item 'Loss of control'.
- 3 *Brief Symptom Inventory (BSI)* (Derogatis, 1975), (De Beurs & Zitman, 2006). This self-report questionnaire consists of 9 scales to determine dimensions of psychopathology (depression, anxiety, somatization, obsessive compulsive symptoms, hostility, paranoid ideation, interpersonal sensitivity, phobic anxiety, and psychoticism). It measures the level or depth of distress currently being experienced by the individual. The Global Severity Index (GSI) is the total score of the instrument, and measures overall psychological distress level using the Positive Symptom Distress Index (PSDI) to assess the intensity of symptoms, and the Positive Symptom Total (PST) to report the number of self-reported symptoms.
- 4 *Penn State Worry Questionnaire (PSWQ)* (Meyer, Miller, Metzger, & Borkovec, 1990; Van Rijsoort, Emmelkamp, & Vervaeke, 1999). This self-report questionnaire measures a general trait-like tendency to worry, including pathological worry. The 16 items are scored from 0 ('does not matter at all') to 4 ('does matter a lot'). Positively keyed items represent a 'general worry' factor (11 items), while negatively keyed items represent a 'not worry' factor (5 items) (Van Rijsoort et al., 1999).
- 5 *Self-Esteem Scale (SES)* (Rosenberg, 1965) assesses self-esteem on a 10-item questionnaire scored by the patient on a 4 point-scale from 'strongly agree' to 'strongly disagree'. The scale comprises two factors; 5 positively stated items representing self-confidence and 5 negatively stated items representing self-depreciation.
- 6 To list the *need for support or treatment*, a questionnaire was developed by the authors. Patients were asked 'Do you need help' and had to choose 'yes' or 'no'. Subsequently, they could choose from a list with possibilities for help or treatment according to Hosman (Hosman, 2006). In case of a 'no' response, patients could choose 'I want to solve my problems myself', 'I don't want to think about anything', 'Eventually, I will consult my family, friends, or significant other(s)'. In case of a 'yes' response, patients could choose 'I

- want help from a general practitioner', 'social worker', 'psychologist or psychiatrist', 'medication', 'admittance', 'other'.
- 7 To assess the *patients' capability of appraising their situation*, patients were asked to answer the question 'I think I am capable of appraising my situation' on a seven-point Likert scale from 'strongly agree' to 'strongly disagree'. At home, they were also asked to score whether they found themselves more capable at home than in the hospital.
 - 8 During the second interview at home, the research nurse asked the patient what he or she recalled about the arrangements for aftercare made in the hospital, and listed the answers.
 - 9 Additionally, the research nurse noted if changes in the arrangements for aftercare had been made and for what reasons.

Statistical power

A power analysis ($\alpha = 0.05$; power = 0.90) showed that 50 patients would yield sufficient statistical power to answer the research questions regarding the comparison of assessments from T1 to T2.

STATISTICAL ANALYSES

Scores on the SIS, MPQ, BSI, PSWQ, and the SES were summed up and expressed as the mean, and standard deviations were calculated. The mean scores were calculated both for the total questionnaire scores, and for the various factors. Differences between these scores at T1 and T2 were compared using the paired T-Test.

Pearsons' correlation coefficients were calculated for all factors between T1 and T2 to examine the extent of the relationship between both assessments. In order to find consistency in the data between the different questionnaires, Pearsons' correlation coefficients were estimated between the total score of the SIS at T1 and T2 with the various factors of the MPQ; with consistent data, a high total SIS score should be positively correlated with the factor 'Final exit' and negatively with the other factors of the MPQ.

RESULTS

Patients

From September, 2004 to August, 2005, 195 suicide attempters were seen by the psychiatric consultants. Of these, 113 were excluded (Figure 8) and 23 did

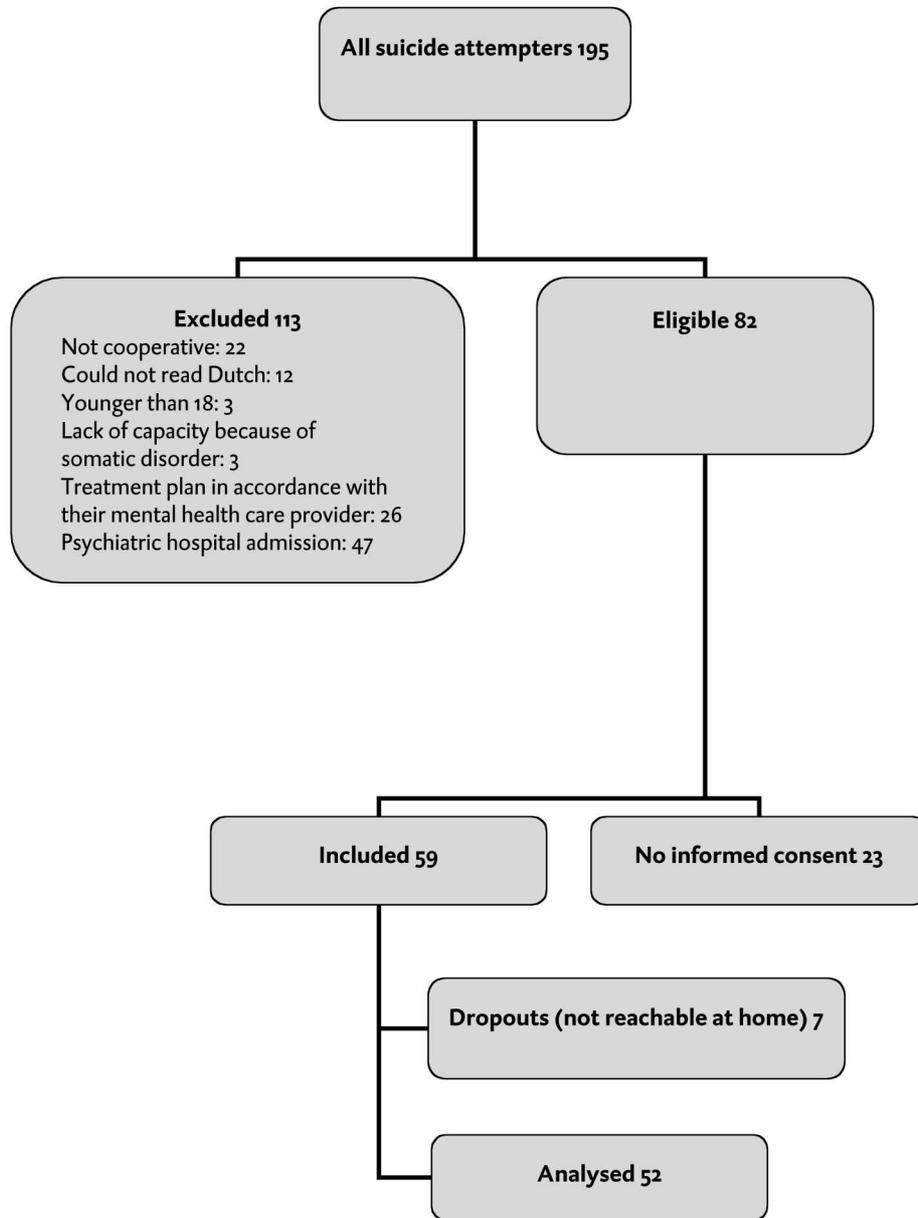


Figure 8 Flow diagram showing the patient selection process

not give informed consent, resulting in 59 eligible patients. The patients were first assessed in the hospital (referred to as T₁) and again at home (T₂) within 7 days after discharge (mean was 5.0 days, SD 1.6). Of the enrolled patients, 7 dropped out because they were not at home when the research nurse visited for the second assessment. Data from the remaining 52 patients were used in the analysis. The evaluable patients' characteristics are summarized in Table 13. No suicide or additional suicide attempts occurred between T₁ and T₂.

Table 13 Patient characteristics (N = 52)

Sex, male, n (%)	14 (26.9)
Age in years, mean (SD)	43.4 (11.6)
Use of alcohol, n (%)	33 (64)*
Psychotropic drug overdose, n (%)	38 (79)
First-evers, n (%)	25 (49)
Patients in psychiatric treatment, n (%)	20 (38.5)

SD – standard deviation

* 2/3 used on average 5.7 U/day

Measurements

Table 14 summarizes the results from the measurements at T₁ and T₂. The most striking results are described below.

Suicide Intent Scale (SIS) and Motives of Parasuicide Questionnaire (MPQ)

Scores on the SIS and MPQ at T₁ and T₂ did not differ significantly. However, scores on the single item 'It seemed that I lost control of myself, and I do not know why I did it' (measuring 'Loss of control') were significantly lower at T₂ than at T₁ ($p = 0.03$).

Brief Symptom Inventory (BSI)

There were no significant differences in the scores on the Global Severity Index, Positive Symptom Distress Index, and Positive Symptom Total when comparing T₁ to T₂.

Table 14 Scores on the different self-reported questionnaires of suicide attempters in the hospital right after their attempt (T1) and a few days later at home (T2), and the correlations between T1 and T2. N = 52

		T1	T2	P*(T2-T1)	Correlation T1-T2	
		Mean (SD)	Mean (SD)		r	P**
SIS	Total score	11.6 (6.1)	11.5 (5.4)	0.81	0.81	<0.001
	Objective part	5.1 (3.2)	5.1 (2.6)	0.76	0.71	<0.001
	Subjective part	6.5 (3.8)	6.5 (3.8)	0.96	0.76	<0.001
MPQ	Total score	2.5 (15.4)	3.8 (14.7)	0.41	0.70	<0.001
	Care seeking	-2.4 (8.0)	-2.0 (7.8)	0.64	0.75	<0.001
	Influencing others	-5.0 (5.8)	-5.0 (5.7)	0.90	0.69	<0.001
	Temporary escape	3.7 (2.7)	4.2 (2.3)	0.27	0.32	0.02
	Final exit	4.6 (6.1)	5.8 (4.5)	0.07	0.60	<0.001
	Loss of control	1.6 (2.1)	0.8 (2.4)	0.03	0.40	0.003
BSI	GSI	1.8 (0.8)	1.8 (0.9)	0.87	0.81	<0.001
	PSDI	2.5 (0.7)	2.5 (0.7)	0.72	0.81	<0.001
	PST	36.3 (10.5)	36.0 (10.7)	0.97	0.79	<0.001
	Somatization	1.5 (1.0)	1.5 (1.1)	0.42	0.73	<0.001
	Obsessive compulsive	1.9 (1.1)	1.9 (1.1)	0.56	0.83	<0.001
	Interpersonal sensitivity	2.0 (1.2)	2.1 (1.3)	0.46	0.80	<0.001
	Depression	2.5 (1.1)	2.4 (1.0)	0.42	0.61	<0.001
	Anxiety	2.1 (1.1)	2.0 (1.0)	0.73	0.70	<0.001
	Hostility	1.3 (1.0)	1.4 (1.1)	0.56	0.70	<0.001
	Fobic anxiety	1.4 (1.0)	1.6 (1.1)	0.10	0.73	<0.001
	Paranoid ideation	1.6 (1.2)	1.7 (1.2)	0.85	0.75	<0.001
	Psychoticism	1.8 (1.0)	1.7 (1.0)	0.67	0.70	<0.001
PSWQ	Total score	58.5 (12.9)	61.7 (11.5)	0.07	0.72	<0.001
	General worry	38.3 (12.0)	42.3 (10.8)	0.002	0.75	<0.001
	Not worry	20.1 (3.5)	19.4 (4.3)	0.39	0.20	0.159
SES	Total score	26.3 (6.2)	27.7 (6.3)	0.03	0.76	<0.001
	Positive score	12.4 (3.4)	13.3 (3.3)	0.03	0.78	<0.001
	Negative score	13.8 (3.3)	14.4 (3.3)	0.09	0.67	<0.001

SIS: Suicide Intent Scale

Objective part: items 1-8

Subjective part: items 9-15

MPQ: Motives of Parasuicide Scale Questionnaire

BSI: Brief Symptom Inventory

GSI: Global Severity Index

PSDI: Positive Symptom Distress Index

PST: Positive Symptom Total

PSWQ: Penn State Worry Questionnaire

SES: Self Esteem Scale

P*: P-value paired t-Test

r: correlation coefficient

P**: P-value Pearson correlation

SD: standard deviation

Penn State Worry Questionnaire (PSWQ)

The mean general worry score at home was significantly higher than in the hospital, indicating that patients worried more when they were measured at home a few days after their attempt ($p = 0.002$).

Self-Esteem Scale (SES)

At home, the mean total score ($p = 0.03$) and the mean positive score ($p = 0.03$) were significantly higher than in the hospital, indicating that patients' self-esteem measured at home was lower.

Patients' capability of appraising their situation

Sixty-nine percent of patients in the hospital and 71% at home scored that they believed that they could appraise their situation well. Nevertheless, 71% found themselves more capable of doing so at home.

Need for support or treatment

Although patients were more inclined to indicate that they wanted help at home than in the hospital, this difference was not significant. However, 6 of the 7 patients who felt no need for support or treatment in the hospital changed their mind and asked for help at home.

Recollection of arrangements made for aftercare

At home, 18 (35%) patients did not remember whether arrangements for aftercare had been made during their stay in the hospital. Of these, 8 (15%) patients thought that no arrangements ever had been made, and 10 (19%) could not remember the specifics of the arrangements. Seven (13.5%) patients remembered the arrangements, but did not remember that the psychiatric consultant discussed these with them.

Evaluation of follow-up visit

The arrangements for aftercare were changed for 13 (25%) patients after having been reassessed at home. The main reasons given were persistent suicidal intentions ($n = 5$) and the patients' need for help other than what had been previously arranged ($n = 4$). Six (12%) patients stated that they still had suicidal ideation or that ideas about repeating the attempt returned.

DISCUSSION

The main finding of this study is that compared with the assessment in the hospital, suicide attempters had not changed their opinions about their intentions and most of their motives for the attempt a few days later, after going home. The patients had similarly high scores on symptoms of psychopathology on both occasions. Correlation coefficients of the total scores of the psychometric instruments used were between 0.70 and 0.81 which indicates that the assessment in the hospital correlated to a large extent with the reassessment at home.

Other findings of the study were that at the reassessment patients worried significantly more and had a lower self-esteem. Possibly, realizing the consequences of what had happened, patients became more demoralised when they were at home again. On the other hand, it could be argued that patients gave a more positive opinion about worrying and self-esteem in the hospital, for example due to their state of intoxication, the support of carers and significant others, or their ambivalence to accept help. A consequence of these findings might be to detect and study those patients who worry more and have lower self-esteem after a suicide attempt. It is worthwhile to know whether these patients are at higher risk for repetition of a suicide attempt or to complete a suicide.

Looking more in detail at the data, some additional comments can be made. At home, patients scored significantly lower on the motive item 'Loss of control', meaning that they considered their attempt as less impulsive than they did in the hospital. Also, there was a trend ($p = 0.07$) towards higher mean scores at home on the motive factor 'Final Exit'. This factor refers to the motives for wanting to die by the suicidal act, contrasting other motives like a cry for help or manipulating others (Hjelmeland et al., 2002). The correlation between the measurements of this motive factor at home and in the hospital was moderate ($r = 0.60$) and therefore it might be concluded that there was at least a subgroup of patients who later changed their opinion about this motive factor. Considering that in other studies, motives and intentions to die have been found to predict later suicide (Suominen, Isometsa, Ostamo, & Lonnqvist, 2004; Harriss, Hawton, & Zahl, 2005), this result might be clinically relevant. In this respect, it is worthwhile to realize that at home patients said they felt more capable of appraising their situation. These findings require further investigation as they could mean that suicidal motives might be underestimated at the initial assessment in the hospital.

Some other findings at the reassessment might also be relevant for clinical practice. Seventy-one percent of the patients said they felt more capable of appraising their situation when evaluated at home than in the hospital setting.

However, the question was formulated 'I do consider myself better capable to appraise my situation than in the hospital'. It cannot be denied that there is some bias in this question, and therefore the answers are disputable. The more relevant finding might be that a substantial number of patients did not remember anything about the arrangements for aftercare made in the hospital, even though all patients had been given these arrangements in writing as well as verbally. Another meaningful finding was that 6 of the 7 patients who refused support or treatment when it was offered in the hospital, had changed their minds about this issue after returning home. It would be interesting to study how these findings might relate to specific subgroups of patients, such as intoxicated patients and repeaters. In this study, subgroups tended to differ (data not shown), and although their numbers were too small to perform proper statistical analyses the data might be used to generate new hypotheses.

As the patients were systematically assessed with instruments that are used in other studies on suicide attempters, some comparisons can be made. Total scores of the SIS and the MPQ resembled those found in other studies on suicide attempters (Hjelmeland et al., 2000), (Hjelmeland et al., 2002). Also in accordance with the literature, there were more female suicide attempters than male, most attempters (79%) took an overdose of psychotropic drugs, and most commonly used alcohol (Michel et al., 2000).

From the 195 suicide attempters that presented during one year at this general hospital, only 59 were eligible for the study. Therefore, it should be kept in mind that the results are only applicable to a small segment of suicide attempters. Considering the excluded patients, it is quite likely that they may have formed a more severe subgroup. Often they were not cooperative, refused to participate, or were directly referred to the psychiatric ward. This selection may have influenced the results, since more differences between T1 and T2 might have been found if all suicide attempters had been included.

In general, the systematic assessment of suicide attempters in the hospital environment was comparable to a reassessment at home a few days later. At home, patients worried more and had lower self-esteem. Furthermore, at home only a few patients remembered the information given concerning aftercare, most patients felt more capable of appraising their situation, and some patients changed their minds about accepting help. Considering these findings, additional strategies to assess suicide attempters in the general hospital should be developed.

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