Inadequate Treatment for Major Depression Both Before and After Attempted Suicide

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Objective: The authors' goal was to investigate the treatment received by suicide attempters with major depression before and after the index attempt. **Method:** Forty-three patients with current unipolar DSM-III-R major depression were identified in a diagnostic study from a systematic sample of suicide attempters in Helsinki. All were comprehensively interviewed and investigated after the attempt, and their treatment was ascertained from psychiatric and other health care records and follow-up interviews. **Results:** During the month just before the suicide attempt, seven (16%) of the patients had received antidepressants in adequate doses, seven had received weekly psychotherapy, and none had received ECT. Although almost all of the patients complied with the recommended aftercare following the suicide attempt, after 1 month only seven (17%) were receiving antidepressants in adequate doses, nine (22%) were receiving weekly psychotherapy, and none had been given ECT. **Conclusions:** It seems that few suicide attempters with major depression receive adequate treatment for depression before the suicide attempt and that, despite their well-known high risk for suicide, the treatment situation is not necessarily any better after the attempt. These findings suggest that the recognition of depression and the quality of treatment received for major depression among suicide attempters should be investigated and improved to prevent suicide.

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Major depression and attempted suicide are both important risk factors for suicide (1), and a recent suicide attempt in mood disorders predicts a particularly high risk (2). Suicide attempters with major depression, therefore, should be a high priority subgroup for treatment.

Major depression has been found to be undertreated among suicide attempters (3) and completers (4). In an earlier study (4), we found that only a small minority of suicide victims with major depression had received antidepressants in adequate doses, weekly psychotherapy, or ECT; similarly, other researchers (3) found that very few suicide attempters with major depression had received antidepressant therapy at a sufficient dose preceding the attempt. Although a suicide attempt provides an opportunity for treatment intervention, to our knowledge there is no previous study investigating how the quality of treatment received for major depression improves after attempted suicide.

The aim of this study was to examine suicide attempters with current unipolar DSM-III-R major depression and any treatment they received both preceding and following the suicide attempt. We expected to find undertreatment of depression before the attempt but more adequate treatment after it.

METHOD

Helsinki is one of the European centers participating in the World Health Organization (WHO)/EURO Multicentre Study on Parasuicide (5), which investigates factors predicting future suicidal behavior. The WHO/EURO study uses "attempted suicide" and "parasuicide" (6) as synonyms. The present study was a diagnostic subproject of the repetition prediction study and was conducted independently only in Helsinki.

Our subproject included a systematic sample of 114 patients who were 15 years old or older taken from consecutive cases of attempted suicide referred to a general hospital in Helsinki between January 1 and July 31, 1990. The patients were comprehensively interviewed, usually within 10 days of the index attempt (median=8, range=1–43). Written informed consent was obtained for interviews. All 114

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TABLE 1. Psychiatric Treatment Received by 43 Suicide Attempters With Major Depression During the Month Before and the Month After the Index Attempt

Treatment Variable	Before Suicide Attempt N	Before Suicide Attempt %	After Suicide Attempt N	After Suicide Attempt %
Treatment type[a,b]				
General practitioner	4	9	2	5
Psychiatric outpatient treatment	18	42	24	57
Psychiatric inpatient treatment	1	2	3	7
Treatment for alcohol problems	5	12	8	19
No treatment	15	35	5	12
Antidepressant[c,d]				
None	30	70	25	61
Inadequate	6	14	9	22
Adequate	7	16	7	17
Psychotherapy[c,e]				
Yes	7	16	9	22
No	36	84	32	78
ECT[c]	0	0	0	0

[a] Postattempt information missing for one patient.
[b] Classes combined to form dichotomous variables. Significant difference between no treatment and psychiatric or medical care (McNemar χ^2=8.33, df=1, p=0.004) and between psychiatric care and medical care or no treatment (McNemar χ^2=5.33, df=1, p=0.02).
[c] Postattempt information missing for two patients.
[d] Classes combined to form dichotomous variables. Nonsignificant difference between any antidepressant treatment and no antidepressant treatment (McNemar χ^2=1.00, df=1, p=0.50) and between antidepressant in adequate doses and inadequate doses or no antidepressant treatment (McNemar χ^2=0.00, df=1, p=1.0).
[e] Nonsignificant difference between psychotherapy received before and after the index attempt (McNemar χ^2=1.00, df=1, p=0.63).

suicide attempters were interviewed with the European Parasuicide Study Interview Schedule I (5) independently of psychiatric consultation and treatment. After the interviews, DSM-III-R diagnoses were made on the basis of all available information, including interview responses, psychiatric and medical records, and psychiatric consultation forms. We have previously reported the mental disorders of these suicide attempters and the methodological details (7). Of the 114 suicide attempters, 43 (38%) received a diagnosis of current unipolar DSM-III-R major depression. These 43 suicide attempters with major depression became the subjects of the present study (all were white; 16 were men and 27 were women; male:female ratio=0.59). The mean age of the patients was 40.8 years (SD=13.2, range=18.8–74.4). Fifteen patients (35%) were married, 17 (40%) were single, and 11 (26%) were separated or widowed. The mean number of children was 1.1 (range=0–6). In employment status, 18 (42%) were employed, three (7%) were unemployed, 13 (30%) were retired, and nine (21%) were classified as other. Sixteen (37%) of the patients had comorbid alcohol dependence, and six (14%) had alcohol abuse (7).

We examined the medical and psychiatric records of all 43 patients. Information concerning recommended aftercare, prescribed drug treatment (during the month before and the month after the suicide attempt), and ECT was obtained exclusively from these medical and psychiatric records. Only drugs used regularly were included. In addition, a follow-up interview 1 year after the index suicide attempt was conducted with the European Parasuicide Study Interview Schedule II (5) with patients willing to participate (24 [56%] of 43). The other details of clinical history, treatment received, and follow-up information were ascertained by using all available information, including interview responses, psychiatric and medical records, and psychiatric consultation forms.

Adequate antidepressant treatment was defined as ≥150 mg/day of tricyclic antidepressants, ≥30 mg/day of mianserin, ≥150 mg/day of trazodone, ≥100 mg/day of fluvoxamine, ≥20 mg/day of fluoxetine, or ≥20 mg/day of citalopram. Psychotherapy was defined as regular treatment sessions with a mental health professional at least once a week for at least three visits, with the aim of helping the patient by discussing his or her problems.

RESULTS

Twenty-six (60%) of the 43 patients had a history of psychiatric inpatient treatment before the index suicide attempt, and 35 (81%) had received psychiatric outpatient treatment. Twenty-seven (63%) had attempted suicide before.

In 39 cases (91%), the method of the index attempt was overdose. Before the attempt, 13 patients (30%) had received antidepressants (table 1), 22 (51%) had received benzodiazepines, and 10 (23%) had received neuroleptics. Five (38%) of the 13 patients receiving antidepressants, 18 (82%) of the 22 patients receiving benzodiazepines, and five (50%) of the 10 patients receiving neuroleptics had used them for self-poisoning. Benzodiazepines were more often used for overdose than were antidepressants (p=0.03, Fisher's exact test, two-tailed).

After the index attempt, 31 (72%) of the suicide attempters were referred for psychiatric consultation, although major depression had been diagnosed by a psychiatric consultant in only 12 (39%) of these. Forty (93%) of the 43 patients were referred to aftercare; 13 (33%) of these were referred to psychiatric inpatient treatment, 19 (48%) were referred to psychiatric outpatient treatment, and eight (20%) were referred to substance abuse treatment. Only one (3%) of the 40 patients did not attend the recommended aftercare. Depressed mood was recognized and documented in 36 (84%) of the 43 patients. However, 1 month after the suicide attempt, the proportion of patients receiving adequate treatment for major depression was no higher than it was before the attempt (table 1).

The only variable predicting inadequate antidepressant therapy 1 month after the suicide attempt was comorbid alcohol abuse or dependence: none of the 20 patients with these disorders for whom data were available were receiving adequate antidepressant therapy, compared with seven of the 21 other patients (p=0.009, Fisher's exact test, two-tailed). Two logistic regression models concerning treatment both before and after the suicide attempt were created, with adequate antidepressant therapy as the dependent variable. None of the independent variables (sex, age, and comorbid alcohol dependence) proved a significant predictor before the index attempt. One month after it, however, comorbid alcohol dependence was a significant predictor: when comparing the model with sex, age, and comorbid alcohol dependence as independent variables and the model without alcohol dependence as an independent variable, we found that the likelihood ratio test statistic between the two models was statistically significant (–2 log likelihood ratio=6.6, df=1, p=0.01).

DISCUSSION

This appears to be the first study investigating treatment received both preceding and following a suicide attempt among patients with current unipolar major depression. The main finding was that the majority of suicide attempters with major depression failed to receive adequate treatment for depression—both before and, somewhat unexpectedly, after the attempt.

The study sample from which subjects with major depression were taken accurately represents all suicide attempters in the Helsinki catchment area in terms of sociodemographic and clinical variables (7, 8). However, this study's weakness is that many patients refused to participate or initially consented but then failed to attend the interview. This may mean that the patients studied tend to be representative of suicide attempters who are sufficiently motivated to stay in health care, including those with major depression. Any such bias would have resulted in an overrepresentation of motivated and treatment-compliant patients. A second limitation of this study is that our diagnoses were not based on any standardized diagnostic interview schedule. They are an experienced psychiatrist's research DSM-III-R diagnoses based on all available information about the mental state preceding the suicide attempt. Although multiple sources of information are likely to have improved the diagnostic accuracy, the reliability of this method could not be estimated. The stringent use of DSM-III-R criteria probably led to underestimation of major depression cases. A third limitation is that the sample size may have limited the statistical power of our study and that the possibility of type II error cannot be excluded. Nevertheless, the similarity of the proportions of treatment received before and after the suicide attempt does not support the possibility of type II error (table 1). On the basis of careful examination of medical and psychiatric records and the similarities of treatment profiles before and after attempted suicide, we find it highly unlikely that we missed any major postattempt improvement in treatment.

Most of the patients in our study sample had received psychiatric outpatient or inpatient treatment at some time, and 65% had been treated in health care during the month before the suicide attempt. The undertreatment of depression has been reported previously (3, 4), and it came as no surprise to us to observe this before the suicide attempts here. However, contrary to our expectations, patients with major depression did not get adequate treatment for depression after the suicide attempt; 17% were receiving antidepressants in adequate doses, 22% were receiving weekly psychotherapy, and, surprisingly, none was receiving ECT. We have at least two possible explanations for this inadequacy. First, although most of the patients referred for psychiatric consultation and aftercare were usually recognized as having depressed mood, in only a minority of cases was a diagnosis of major depression made and treatment offered. Second, our patients suffered comorbid disorders, particularly alcohol abuse or dependence (7). None of the patients who received antidepressants in adequate doses after attempted suicide had comorbid alcohol abuse or dependence. Noncompliance with aftercare seemed not to be important in explaining the low levels of treatment for depression. The generalizability of these findings should be further investigated in other settings.

It seems that few suicide attempters with major depression receive adequate treatment for depression before the attempt and that, despite the well-known high risk of suicide in this patient group, the treatment situation is not necessarily any better soon after the attempt. Our findings suggest that the recognition of depression and the quality of treatment for major depression among suicide attempters both before and after the attempt should be investigated and improved to prevent suicide. Appropriate measures might include not only training of health care professionals in diagnostic procedures but also particular attention to developing feasible treatment strategies for major depression among patients with comorbid disorders.

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