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ASSESSMENT AND TREATMENT OF ATTEMPTED SUICIDE PATIENTS IN A GENERAL HOSPITAL

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ORIGINAL ARTICLES

1. LIST OF ORIGINAL PUBLICATIONS

The thesis is based on the following original publications:

I Suokas J, Lönnqvist J. Staff's attitudes toward patients who attempt suicide. In: Diekstra et al ed. Suicide and its prevention: The role of attitudes and imitation. Leiden: E.J.Brill, 1989;227-248.

II Suokas J, Lönnqvist J. Work stress has negative effects on the attitudes of emergency personnel towards patients who attempt suicide. Acta Psychiatr Scand 1989;79: 474-480.

III Suokas J, Lönnqvist J. Evaluation of attempted suicide: A comparative study between staff in a general hospital and consulting staff in a psychiatric hospital. Crisis 1989;10:2:123-131.

IV Suokas J, Lönnqvist J. Evaluation of psychiatric emergency consultations in the care of self-poisoned patients by primary physicians in a general hospital. Nord Psykiatr Tidsskr 1989;43:417-422.

V Suokas J, Lönnqvist J. Selection of patients who attempted suicide for psychiatric consultation. Acta Psychiatr Scand 1991;83:179-182.

VI Suokas J, Lönnqvist J. Outcome of attempted suicide and psychiatric consultation: Risk factors and suicide mortality during a five-year follow-up. Acta Psychiatr Scand 1991, in press.

2. INTRODUCTION

Suicide and attempted suicide are a significant public health problem in Europe. In North America and Western Europe the number of suicide attempts, especially self-poisonings, increased during the 1960s and 1970s (Weissman 1974, Diekstra 1982). It is estimated that 200-800 suicides per 100 000 inhabitants are attempted annually, which is more than ten times the number of actual suicides (Diekstra 1989).

Self-poisonings comprise more than 90% of all cases of attempted suicide admitted to general hospitals in Finland (Lönnqvist 1985, Lönnqvist and Ostamo 1988). The majority of self-poisonings are caused by psychotropic drugs; and suicide attempts are often preceeded by drinking alcohol (Barraclough et al. 1974, Goldney 1981, Rajagopal and Mendonca 1987, Hawton et al. 1989).

Self-poisonings have become a significant problem for the emergency personnel in general hospitals, since they are the ones primarily responsible for evaluating acute cases and planning after-care. During the years there has been much debate regarding the optimal setting for the management of attempted suicide, particularly the need for psychiatric consultation in the care of self-poisoning patients.

A number of studies have highlighted the unpopularity of attempted suicide patients treated in general hospitals: this has raised questions of how staff attitudes affect patient management and the outcome of suicide attempts.

2.1. Definition of suicide attempt

A suicide attempt is one of the most important predictors of suicide. It is sometimes interpreted as an unsuccessful suicide and considered to be an action in which the intent is to take one's own life. This view has been criticised. Rather, some see a suicide attempt as an action which arises from complicated motives, with no clear or definite aim, and for which the intent can also be something other than the actual intention to die. The lethality of the action forms a continuum from a completely harmless to a fatal act. Stengel's (1971) definition is that "a suicidal act is any deliberate act of self-damage which the person committing the act cannot be sure to survive".

Attempted suicide is used synonymously with parasuicide, deliberate self-harm or self-poisoning (Kreitman et al. 1969, Morgan 1979). By "self-poisoning" is meant the deliberate ingestion, inhalation or injection of more than the prescribed

amounts of medical substances, or deliberate ingestion, inhalation or injection of substances never intended for human consumption.

2.2. Definition of attitude

The definition of attitude is complex, and the word is given many meanings. Attitudes help people to understand the world around them, to protect their self-esteem and to express their fundamental values. Triandis (1971) defines an attitude as "an idea charged with emotions which predisposes a class of actions to a particular class of social situations". DeFleur and Westie (1963) consider an attitude as "an inner process giving both direction and consistency to the person's responses". The concept implies that the attitudinal components of cognition, emotions, intended behaviour and actual behaviour should be consistent for a given object. But for suicidal patients, evidence of consistency among attitudinal components is difficult to find, and a more complex picture emerges in the literature on differences in consistency between professional and private attitudes toward suicide (Whittemore et al. 1972, Ramon and Woodhead 1977). The inconsistent and sometimes negative attitudes held by some caregivers appear to lead to avoidance and rejection behaviours (Lang et al. 1989).

2.3. Attitudes of health care professionals toward patients who have attempted suicide

Suicide attempts arouse mixed feelings among the staff of the general hospital. These feelings may affect the treatment of attempted suicide patients (Dressler et al. 1975). Personal attitudes toward patients who have attempted suicide vary greatly (Platt and Salter 1987). It can be assumed that the professional attitudes toward attempted suicide patients may become more negative when members of the staff are constantly working under pressure. Furthermore, emergency personnel in general hospitals are primarily trained to take care of somatic crises, and patients' psychological distress may result in feelings of helplessness and rejection among the emergency department staff. The staff also frequently emphasize the self-inflicted nature of suicide attempts (O'Brien and Stoll 1977).

Staff attitudes are immensely important, because their willingness to help a patient who has attempted suicide affects the content and possibly also the effectiveness of the care. The attitudes of different occupational groups toward patients who have attempted suicide have been the subject of numerious studies (Ansel and McGee 1971, Welu 1972, Dressler et al. 1975, Patel 1975, Ramon et al. 1975, O'Brien and Stoll 1977, Ghodse 1978, Ramon and Breyter 1978, Goldney and Bottrill 1980, Ramon 1980, Creed and Pfeffer 1981, Hawton et al. 1981, Wolk-Wasserman 1985, Ghodse et al. 1986, Platt and Salter 1987, Black and Creed 1988). These previous studies show that staff often have negative or indifferent attitudes toward patients who have attempted suicide.

According to Ramon's studies, based on interviews, the nurses in a general hospital in England are more approving and understanding of attempted suicide patients than are physicians. The main findings of these studies indicate that all staff groups share an ambivalent – yet stereotypical – attitude toward self-poisoning patients, and that physicians express a more negative approach than either nurses or psychiatrists (Ramon et al. 1975, Ramon and Breyter 1978, Ramon 1980). Patel (1975) did not find any significant differences between the attitudes of nurses and physicians; according to his study, members of the staff who are continually responsible for the treatment of attempted suicide patients have the most negative attitudes.

2.4. Management in general hospitals of attempted suicide patients

Today most attempted suicide patients are treated in outpatient departments of general hospitals for an acute somatic crisis. Attempted suicide is an important field of consultation psychiatry. In general hospitals, the referral rate for psychiatric consultation of all admissions to the general hospital varies greatly, the average being 3%. A suicide attempt is the most frequent reason for referral: an average one-third of all psychiatric consultations are requested for this type of patients (Hengeveld et al. 1984). In Helsinki University Central Hospital (HUCH) attempted suicide accounts for 25% of all psychiatric consultations (Lönnqvist 1985, Leppävuori et al. 1989).

It has been debated whether psychiatric consultation is always necessary in the care of patients who have attempted suicide. Current opinion on the care of attempted suicide patients seems to be that treatment should be decentralized and carried out in general hospitals, and that the physicians in these hospitals should have the responsibility for this care. The physician should decide individually in each case whether the patient requires psychiatric consultation or not. However, the situation of each attempted suicide patients must be carefully assessed, and the physician must also be given the opportunity to consult a psychiatrist (Gardner et al. 1977, Gardner et al. 1978, Blake and Bramble 1979, Black and Pond 1980, Gardner et al. 1982).

Very few studies have been made on the effect of psychiatric consultation in the care of attempted suicide patients. It has been stated that psychiatric assessment and intervention might be useful in reducing the likelihood of subsequent suicides (Greer and Bagley 1971, Rosenman 1983). Studies done in the Helsinki area have indicated that psychiatric consultation has a positive effect on the outcome of patients who had attempted suicide (Lönnqvist and Kärhä 1984, Lönnqvist 1985).

2.5. Outcome of patients who have attempted suicide

Those patients who attempt suicide are at particularly high risk of eventually dying from suicide, with suicide mortality being greatest during the years immediately after the suicide attempt (Weissman 1974, Lönnqvist et al. 1975, Dorpat and Ripley 1976, Kreitman 1977, Hawton 1987, Cullberg et al. 1988). The risk of suicide correlates with the number of previous suicide attempts (Barncroft and Marsack 1977). However, the psychiatric literature dealing with the relative efficacy of different variables for predicting suicide risk among those attempting suicide includes considerable debate (Beck and Steer 1989).

It is estimated that 1–10% of those who have attempted suicide later commit suicide (Dorpat and Ripley 1967, Weissman 1974). A Danish study showed that 3% died by suicide during the first three years after an index suicide attempt (Hansen and Wang 1984). In a Swedish study of attempted suicide patients treated in an intensive care unit, 12% of the men and 11% of the women committed suicide during a 5–6 year follow-up period (Ettlinger 1975). Studies covering an observation period of 5–10 years showed that c. 4–8% of attempted suicide patients eventually died by suicide (Motto 1965, Eisenthal et al. 1966, Cullberg et al. 1988). Some older follow-up studies demonstrate a remarkably lower rate (0.05–2.6%) of suicide (Ringel 1952, Retterstöl 1970, Bratfors 1971). There are also follow-up studies over a very long period. Schneider (1954) found, that of patients who had attempted suicide, 10% commit suicide over a 10-year observation period, 12% over an 18-year period and 13% over 28-years.

3. THE AIMS OF THE STUDY

The aims of the present study were to:

1. clarify the attitudes of the staff in a general hospital and the attitudes of the staff in a psychiatric hospital toward patients who have attempted suicide.
2. clarify the attitudes of emergency personnel toward attempted suicide patients at the different stages of treatment in a general hospital by comparing the attitudes of the staff in the emergency room, emergency ward and intensive care unit.
3. examine whether there are any differences in the attitudes toward attempted suicide patients between different occupational groups in a general hospital.
4. survey the opinions of the staff on developing treatment for attempted suicide patients in a general hospital.
5. evaluate the clinical assessment of attempted suicide patients in a general hospital.
6. survey opinions of primary physicians concerning the need for psychiatric emergency consultations and the significance of those consultations in the care of patients who have attempted suicide.
7. describe the characteristics of unselected consecutive attempted suicide patients treated in a general hospital during a period of one year.
8. examine how the attempted suicide patients with no psychiatric consultation differ from those who were consulted.
9. evaluate the eventual outcome following a suicide attempt treated in a general hospital using suicide mortality as the outcome criterion. In particular, to investigate risk factors for suicide and to evaluate the effect of psychiatric consultation on the outcome.

4. MATERIAL AND METHODS

One of the starting points for the study was the clinical impression and statements in the literature (Dressler et al. 1975) that attitudes of the staff in a general hospital may have an important effect on patient management. Whether these attitudes affect the outcome of attempted suicide patients was unclear.

In Finland, there is no official administrative policy on the care and psychiatric consultations of patients who have attempted suicide. The established practice is that most of the attempted suicide patients are treated for somatic crises in the emergency department of general hospitals, and most are referred for psychiatric consultation (Palosaari 1990, Pykäläinen and Pakaslahti 1990).

In Helsinki until the 1970s, suicide attempts by self-poisoning were mainly treated in the intoxication ward of a psychiatric hospital (Hesperia Hospital). Gradually the resources of the psychiatric hospital became insufficient to provide the increasingly technical treatment given self-poisoned patients, and their treatment became centralized at a general hospital (Meilahti Hospital), with the necessary equipment to treat acute somatic crises efficiently. Since 1973, it has been possible to request psychiatric consultation for an attempted suicide patient in Meilahti Hospital. This consultation service is offered by the Department of Psychiatry of Helsinki University Central Hospital (HUCH) to all other HUCH departments. Since the beginning of the 1980s, it has been possible to obtain emergency psychiatric consultations.

This study was carried out in Meilahti Hospital and the Department of Psychiatry, which are parts of Helsinki University Central Hospital (HUCH, a large general hospital with about 2700 beds). Meilahti Hospital's emergency department comprises 3 units: emergency room, emergency ward and intensive care unit. Most of the attempted suicide patients are referred from Helsinki and its neighboring municipalities. Of the over 1000 attempted suicide patients treated annually in Meilahti Hospital the majority (90%) are cases of self-poisoning (Lönnqvist 1985, Lönnqvist and Ostamo 1988). All patients are first admitted to the emergency room. Only serious cases (52%) are transferred to the emergency ward or to other departments for further treatment. More over, these patients are almost always (90%) referred for psychiatric consultation (Lönnqvist and Tolppanen 1985). Only the most serious cases (2%) are treated in the intensive care unit, where the main goal is to maintain vital functions.

In Meilahti Hospital, the primary physician treating attempted suicide patients has the services of a psychiatrist available. Emergency consultations are carried out by the Psychiatric Consultation Clinic of the HUCH Department of Psy-

chiatry, most consultations take place in the emergency ward of Meilahti Hospital. The responsibility for treatment is not transferred from the primary physician to the psychiatrist. Emergency consultations are carried out by the junior physician of the Psychiatric Outpatient Department of HUCH, who may contact the senior physician of the Consultation Clinic if necessary. The special form for attempted suicide patients is filled out by the junior physician immediately after the interview.

4.1. Evaluation of staff attitudes

Staff attitudes were measured using a questionnaire that included 41 different statements, with the replies to each statement scaled according to the same 5 responses (1. I agree completely, 2. I agree to a certain point, 3. I do not know, 4. I disagree to a certain point, 5. I disagree completely). The statements were based on earlier studies and they were planned to reflect attitudes toward work in general, toward all patients, toward attempted suicide patients compared to other patients, toward the character of the attempted suicide patient, toward relationship between staff and a person who has attempted suicide, toward the evaluation and treatment and toward the training of the staff. The statements were randomly put in the questionnaire.

The study was carried out in September 1983. Subjects comprised the staffs of the emergency room (n=64), the emergency ward (n=47) and the intensive care unit (n=73) in Meilahti Hospital, for a total of 184 people. In the Department of Psychiatry, the subjects consisted of all the staff of the outpatient service and two ward staffs of the hospital, a total of 85 people. The participation percentage in Meilahti Hospital was 90.2% (emergency room 98.4%, emergency ward 89.6%, intensive care unit 82.7%) and in the Department of Psychiatry 100%. The attitudes of the staff in the general hospital (Meilahti Hospital) were compared to attitudes of the staff in the psychiatric hospital (Department of Psychiatry). The attitudes of the staff in the general hospital were also evaluated in more detail by comparing the attitudes of the staff in the emergency room, emergency ward and intensive care unit.

The majority of staff both in the general hospital and the psychiatric hospital were women, aged 25-40 years. The three units in Meilahti differed in terms of patient material and type of work. In the emergency room, 44% of the staff was in continual contact with patients who had attempted suicide, 37% in the emergency ward, and only 2% in the intensive care unit. In addition, the workload of these three units clearly differs: 85% of the staff in the emergency room, 43% in the emergency ward and 61% in the intensive care unit considered their workload to be too heavy. The patient material in the psychiatric hospital was quite different, however: 35% of the staff was in continual contact with

patients who had attempted suicide, and only 31% of the staff considered their workload to be too heavy.

4.2. Evaluation of attempted suicide patients

Staff ability in the clinical assessment of patients who have attempted suicide was evaluated using an interview based on four actual cases of attempted suicide previously consulted by the Department of Psychiatry. Cases as different as possible were selected and selection of the cases based on previous studies (Ramon et al. 1975). The questions were based on the consultation form used in the Psychiatric Consultation Clinic. The answers of the staff in the general hospital (Meilahti Hospital) were compared to the answers given by the staff in the psychiatric hospital (Department of Psychiatry). The results from both of the groups were compared to the answers given by the psychiatrist who was originally consulted. The questions concerned the degree of somatic severity of the suicide attempt, i.e. lethality, the degree of intent to die, and the intensity of psychiatric after-care. The fourth question was open and attempted to assess staff understanding of each case. The degree of somatic severity was assessed as global clinical assessments and the grades – mild, moderate, serious, very serious – were not determined. The degree of intent to die was also assessed as global clinical assessments, but the grades were very mild, mild, moderate and severe.

The study was carried out in September 1983. The subjects of the study were physicians (n=19) and specialized nurses (n=34) in the emergency department of Meilahti Hospital, compared to all those staff members in the Department of Psychiatry who were involved in consultation work (12 physicians, 9 specialized nurses, 6 psychologists and 3 social workers).

4.3. Evaluation of psychiatric consultations

The opinions of physicians as to the significance of psychiatric emergency consultation in the care of patients who attempt suicide were evaluated by using a questionnaire. The subjects were all physicians (n=15) working in the emergency department of Meilahti Hospital in September 1983 who were responsible for the care of attempted suicide patients. The opinions were compared to the opinions of all physicians requesting emergency psychiatric consultation (n=165) in 1984 (Achté et al. 1988).

4.4. Suicide attempts

The subjects were all consecutive patients who had attempted suicide by self-poisoning and were treated at the emergency room of Meilahti Hospital during 1983: this was a total of 1018 people who made 1207 suicide attempts. There

were 189 repeat attempts (16%), and 54% of the patients were referred for psychiatric consultation.

The data was collected from hospital records using the classifications system tested in a pilot study of all attempted suicide patients treated at the Meilahti Hospital's emergency room during one month in 1985. The notification of death was obtained from the National Registry Center of Finland. The cause and mode of death were obtained from autopsy reports. The follow-up period was on average 5.5 years (January 1, 1983 – December 31, 1988).

The results are presented as number of events (i.e. self- poisonings) except for the follow-up, where the number of people was used.

The annual suicide rate/100 000 was calculated separately for the first follow-up year and for the entire follow-up period. Men and women were studied separately. The index suicide attempt is defined as a first admission to the emergency room because of a suicide attempt by self-poisoning.

4.5. Statistical analysis

The data was statistically analyzed by percentages, t-test, chi-squared statistic, correlation matrix, two-way frequency tables, multiway frequency tables and factor analysis (BMDP Statistical Software 1983).

5. RESULTS

5.1. Attitudes of staff in the general hospital compared to staff in the psychiatric hospital

Attitudes toward patients who attempt suicide were consistently more negative in the general hospital. The difference between the general hospital and the psychiatric hospital was statistically almost significant ($p<0.05$) in 36 statements and there were no differences in 5 statements.

The greatest differences in staff attitudes were as follows: The staff members in the general hospital were more willing (50% *vs* 27%) to decentralize the treatment of attempted suicide patients to other hospitals and to keep only the somatically most serious cases in Meilahti Hospital (66% *vs* 17%). In the general hospital, one-third (37%) of the staff stated that it is difficult to understand or nurse (33%) a person who has tried to commit suicide. One-third (31%) also disagreed with the statement that they would do their best to talk about the patient's personal problems with a patient who has attempted suicide. In the psychiatric hospital, only a few members of the staff (4%, 10%, 1%) thought similarly.

Almost all (97%) staff members in the psychiatric hospital believed that their attitude and behaviour have an effect on whether patients seek further medical treatment, and two-thirds (71%) believed their attitude and behaviour affect occurance of repeat attempts. In the general hospital, these figures were much lower (59% and 38%).

In the general hospital, half (51%) of the staff stated that they nurse patients who have attempted suicide as willingly and as sympathetically as they nurse other patients, whereas in the psychiatric hospital almost all (92%) agreed with this statement. The psychiatric staff (72%) thought that their training had provided them with adequate skills to deal with suicidal patients; in the general hospital one-fourth (28%) thought so.

Similar responses from the staffs of both the general and the psychiatric hospitals were found for only five statements. About half of both staffs agreed with the statement that the amount of medicine used in attempted suicide by self-poisoning expresses the seriousness of the attempt. More than a third of both staffs thought that patients who have attempted suicide should be admitted to a psychiatric hospital, and half disagreed with this. Almost all of both staffs disagreed with the idea that a patient who has attempted suicide should be scolded and treated using strict methods. Half of both staffs thought that patients

are responsible for their suicidal actions and they agreed with the suggestion that the emergency department should have a social worker solely for these patients.

5.2. Attitudes of emergency personnel in the general hospital

Seventy-two percent of the staff in the intensive care unit, 58% in the emergency ward, but only 25% in the emergency room felt that they were as cooperative and sympathetic towards patients who have attempted suicide as towards other patients ($p<0.001$). In the intensive care unit 62%, in the emrgency ward 46%, and in the emergency room 30%, of the staff were generally sympathetic towards patients who had attempted suicide ($p<0.01$).

Twenty percent of the emergency room staff disagreed completely or to some extent with the statement that they try to make a patient who has attempted suicide feel comfortable and secure, whereas only a small minority in the emergency ward and in the intensive care unit disagreed ($p<0.05$). However, the majority of the respondents in all units had a positive attitude towards treating patients who had attempted suicide.

In the emergency room, 30% of the staff disagreed completely with the statement that the attitudes and behaviour of the staff have an influence on the recurrence of the suicide attempt. In the emergency ward 19%, and in the intensive care unit 3%, of the respondents disagreed ($p<0.01$). Thirty-three percent of the respondents in the emergency room disagreed with the statement that the patient who has made repeated suicide attempts is at great risk of "succeeding" in an attempt. This disagreement was shared by 23% of the respondents in the emergency ward and 12% in the intensive care unit ($p<0.05$).

When treating a patient who had attempted suicide, 60% of the emergency ward personnel and 54% of the emergency room personnel let their irritation show. Only 16% of the staff in the intensive care unit admitted doing so ($p<0.001$).

Seventy-six percent in the emergency room, 40% in the emergency ward and 23% in the intensive care unit agreed at least to some extent with the statement that a patient who attempts suicide wastes the staff's time ($p<0.001$). Over half of the personnel in the emergency room and about one-fifth in both the emergency ward and in the intensive care unit felt that patients who attempt suicide misuse the treatment facilities ($p<0.001$).

Differences between the attitudes of the staff in the emergency room, emergency ward and intensive care unit were statistically almost significant ($p<0.05$). The attitudes of the emergency room personnel seemed to be harsher than the attitudes in the other two units.

5.2.1. Organizing the treatment of attempted suicide patients

The opinions of the emergency department staff on arranging treatment of attempted suicide patients varied among the different units. In the emergency room, 63% agreed completely that Meilahti Hospital's emergency department should concentrate on only the most serious cases of self-poisoning. The same opinion was shared by 19% in the emergency ward and 25% in the intensive care unit.

Opinions on whether certain nurses should concentrate on treating attempted suicide patients differed significantly in the various units. This view met with the most support among the staff of the intensive care unit (36%), and with the least support among emergency room personnel (12%). A majority in all the units thought that patients who attempt suicide should be provided with a social worker of their own.

Sixty-eight percent of the staff in the intensive care unit and 49% in the emergency ward agreed, at least to some extent, with the view that new positions should be created for special nurses in psychiatry in the emergency department of the general hospital. Almost half of the staff (48%) in the emergency room disagreed completely.

Security guards were considered necessary by 60% of the respondents in the emergency room. The question of the need for guards divided the staff into two completely opposing groups: 35% of the emergency room staff were opposed to the view; but 47% of the emergency ward personnel considered guards necessary and 47% considered them unnecessary. In the intensive care unit, 31% considered guards necessary, where as 36% did not.

5.2.2. Attitudes of various occupational groups

The different occupational groups in the emergency room did not differ in their attitudes or their opinions on treatment for patients who have attempted suicide. The only important finding was that physicians were the only occupational group in which the majority regarded themselves as having sufficient training to care for patients who have attempted suicide. Auxiliary nurses, in particular, considered their current training insufficient.

5.3. Clinical assessment of patients who have attempted suicide

When assessing the degree of somatic severity (=lethality) of the suicide attempts, the study group (staff in the general hospital) gave almost the same answers in all cases as the original consultant. The comparison group (staff in the psychiatric hospital) assessed lethality as much more severe than did the study group or the original consultant ($p<0.05$). When studying physicians' answers as

a separate group, it was found that physicians in the study group agreed for the most part with the original consultant, whereas physicians in the comparison group assessed lethality as much more severe. The staff in the psychiatric hospital seemed to be much more cautious in their assessments than the staff in the general hospital.

When assessing the degree of intent to die, the study group assessed the degree of intent as less severe, and the comparison group assessed it as more severe, than the original consultant. The differences in opinions between the groups were not statistically significant. The physicians' answers were similar.

The groups' suggestions for the arrangement of psychiatric after-care did not differ to any great degree. Neither were there major differences between the suggestions made by the groups and those of the original consultant.

When the groups were asked if these suicide attempts were understandable acts, there were statistically significant differences between the answers ($p<0.01$). The majority of the comparison group regarded all four suicide attempts as understandable acts. In contrast, there was a distribution in the answers of the study group: those who assessed the degree of intent to die as less severe, also considered the suicide attempt to be less understandable. The physicians in the study group considered the suicide attempts to be "not understandable acts" much more often than the other members of the general hospital staff.

5.4. Psychiatric consultation in the care of patients who have attempted suicide

Most (86%) of the physicians in the emergency department of Meilahti Hospital were satisfied with the psychiatric consultation given in the care of patients who have attempted suicide. One-third (33%), however, would have liked the consultation service to be available 24 hours a day. Moreover, the physicians wanted better opportunities for psychiatric after-care, and they also wanted the psychiatrist and the physician in charge to discuss the main points of treatment.

In a more detailed analysis of the responses to the questionnaire, it was found that half (50%) of the physicians considered that the psychiatric consultation was given "soon enough". Most (80%) of them felt that consultations are significant in assessing the treatment of an attempted suicide patient. 13% thought that they "very often" received answers to their questions concerning patients who had attempted suicide, and 13% considered the answers to the consultation to be "very clear". Most of the physicians (87%) said that psychiatric consultation helps them in making decisions about the care of an attempted suicide patient. Half (50%) of them wanted more instructions, and almost all (92%) wanted more practical procedural arrangements, but the majority (71%) did not want more disentanglement of psychiatric background and dynamics. One-third (33%) felt

that psychiatric consultation lengthens the stay of an attempted suicide patient in a general hospital.

There were statistically significant differences in comparison of the responses of the physicians in the emergency department to the responses of the physicians requesting emergency psychiatric consultations for reasons other than suicide attempts. Physicians who request a consultation for attempted suicide patients do not obtain answers as fast as do physicians who request a consultation for other reasons. The physicians were more dissatisfied with the consultations for attempted suicide patients than with other consultations. They felt that the answers to their questions concerning suicidal patients were not "as clear" as those for other patients, and they wanted more instructions and better arrangements for practical procedures.

5.5. Characteristics of patients who had attempted suicide

5.5.1. Sociodemographic background

Over half of the patients who had attempted suicide (54%) were under 35 years of age. Fifty-three per cent were women, and 47% men. Thirty-four per cent of them were married, and over half (65%) belonged to the lower social classes (skilled or unskilled workers).

5.5.2. Basic physical health

A patient's physical health was assessed by using a four-class scale ranging from completely healthy to suffering from a disabling disease. A person was classified as physically completely healthy, if he/she had no physical injury or chronic disease. The state of health was classified as satisfactory, if the patient suffered from a mild condition causing mainly subjective harm, e.g. obesity. A chronic disease demanding continuous treatment, such as epilepsy or diabetes, was classified as a serious disease. A disease or injury restricting normal life, or making it impossible, was classified as disabling; examples of this group are blindness, deafness or paraparesis (Kotila & Lönnqvist 1987). The majority (75%) was classified as being in a good state physically. A serious disease was found in 14% of the patients and only a small minority (3%) suffered from a disabling disease.

5.5.3. History of previous suicide attempts and psychiatric treatment

About half of the patients (47%) had had previous psychiatric inpatient treatment, and 60% had had psychiatric outpatient care. At the time of the suicide attempt, 40% of the patients were under psychiatric outpatient care and 4% were admitted to a psychiatric hospital.

Over half of the suicide attempts (56%) were committed by patients who had earlier attempted suicide. One fourth (28%) had attempted suicide more than three times. In 1983, 16% of the patients were brought to the emergency room more than once because of self-poisoning.

5.5.4. Clinical characteristics

Most of the patients who had attempted suicide came to the emergency room during duty hours. The use of alcohol was determined by a breathanalyser test done in the emergency room at the time of arrival. When this information was not available the use of alcohol was determined by a blood alcohol test. The level of alcohol consumption which was used to differentiate alcohol users form non-users was 0.0 ‰. In almost two-thirds of the patients (62%), some amount of alcohol had been taken in addition to medical drugs. The percentages of alcohol use were 46 for women and 54 for men.

The lethality of the attempt was assessed on the basis of the physical condition of the patient and on the basis of the amount and type of substances taken. Four defined grades were used: mild, moderate, serious, very serious. Most (85%) of the self-poisonings were considered to be mild or moderate, and only 3% was assessed as very serious.

5.5.5. Assessing the suicide attempt

The suicide attempts were classified into nine groups depending on the main reasons and motives reported by the patient to the staff at the emergency room. This classification system is based on earlier studies (Kotila and Lönnqvist 1987) and on the pilot study (1985). A fourth (28%) of the patients declared that the main motive was a wish to die, 20% said that the suicide attempt was a solution to a hopeless or difficult situation. Many (10%) could not name any motives and 20% denied that a suicide attempt was intended.

The suicide attempt was classified as being impulsive, if it had been preceded by disappointment, hardship, quarrel or some other kind of conflict. A suicide attempt which had been contemplated and then carried out was defined as non-impulsive, i.e. planned. When information was insufficient, this classification was not made. Altogether, 836 suicide attempts could be classified as to the degree of impulsiveness, and 63% of them were assessed as being impulsive.

The suicide attempts were divided into three groups based on the assessment of the intent to die: certain, probable and undetermined. This assessment is based on a rating scale for determining the degree of certainty of suicide (Lönnqvist 1977), which was modified for attempted suicides in this study. The majority (64%) of suicide attempts were regarded as undetermined, and the intention to die was seldom (3%) assessed as certain.

5.6. Selection of attempted suicide patients for psychiatric consultation

The patient's age was not a significant factor in referral for psychiatric consultation. Women were referred significantly more often than men, mainly for suicide attempts in which the lethality of the attempt was less severe, for which women were referred more often than men (62% *vs* 38%). Married persons were referred more often than were single persons. Divorced persons were referred more often than others. There were no differences in social class between those referred for psychiatric consultation and those who were not. There were no differences in physical health between those patients who were referred for psychiatric consultation and those who were not.

History of psychiatric treatment was a factor in referral for psychiatric consultation. Those referred had been in psychiatric outpatient care significantly more often than those who were not referred (66% *vs* 54%). However, there was no significant difference between patients referred and those not referred for consultation in previous suicide attempts. Those who attempted suicide for the first time were not referred for consultation any more often than those who had a previous suicide attempt.

Attempted suicide patients treated only in the emergency room (48% of all attempted suicide patients in this study) were mildly or moderately intoxicated, and they were referred for psychiatric consultation significantly less often than those treated in hospital wards (18% *vs* 83%).

In the group of patients not referred for psychiatric consultation, alcohol was more frequently present than in the other group (69% *vs* 57%). The alcohol-promille levels were distinctly higher among those not referred for psychiatric consultation. These findings were more evident when the lethality of the suicide attempt was mild or moderate.

Serious somatic signs, such as hypothermia, bradycardia, arrythmia and hypotonia, were present in 12% of the patients not referred for psychiatric consultation and in 32% of those referred for consultation. There was also a clear difference in the patients' degree of consciousness between the groups. The somatic severity (=lethality) was less serious for those not referred. When the lethality of the attempt was mild, 71% of the patients were not referred, when it was moderate 24% were not referred, when it was serious 15% were not referred and when it was very serious 12% were not referred for psychiatric consultation.

The main motive of the suicide attempt for those referred for psychiatric consultation was a wish to die. Those not referred for psychiatric consultation often declared that a suicide attempt had not been intended. If the patient did not express a wish to die, even if the lethality of the suicide attempt was moderate or severe, he or she was quite often not referred for consultation.

The intention to die for the great majority (91%) of suicide attempts was regarded as undetermined in the group of patients not referred for psychiatric consultation. In the group of patients referred for consultation, intention to die was more often regarded as certain or probable (56% *vs* 9%). When the lethality was assessed as mild, more than two thirds (74%) of attempted suicide patients whose intention to die was undetermined were not referred for consultation. This group included 30% of all suicide attempts. When the intention to die had been assessed as probable, 12% of the patients were not referred and 3% were not referred when it was certain.

Many patients not referred for psychiatric consultation were also left without arranged psychiatric after-care (69%) or were only advised to seek further treatment (22%). In contrast, of the patients referred, only 4% were left with no further psychiatric treatment.

5.7. Outcome of attempted suicide patients during a five-year follow-up

By the end of the follow-up period, 91 persons who had attempted suicide in 1983, i.e. 9% of the 1018, had died: 33 (3%) had committed suicide, 12 (2%) women and 21 (4%) men. Annual suicide mortality was 589/100 000 during the 5.5-year follow-up period, 405 for females and 797 for males. However, the distribution of suicides was uneven. Up to 21% of the suicides occurred within one month after the index suicide attempt, and more than half (55%) of all suicides took place during the first year of the follow-up period.

Suicide mortality for the first follow-up year was 1768/100 000, 1299 for females and 2296 for males. This represents a 50- fold risk compared to that of the total population aged over 15 years in Helsinki. During the first follow-up year, particularly middle-aged men (30–49 years) and those left without psychiatric consultation were at great risk of committing suicide. The women at suicide risk were less often left without psychiatric consultation. The most common suicide methods were overdose (n=12), hanging (n=9) and traffic (n=5).

5.7.1. Factors related to subsequent suicide

More men than women (64% *vs* 36%, $\chi^2=3.8$, $p<0.05$) later committed suicide. Suicide seemed to be committed more frequently by older persons (over 45 years: 27% *vs* 19%, N.S.). Later suicides did not differ from other attempted suicide patients in regard to marital status and social class.

Those who committed suicide had more often undergone previous psychiatric treatment and were more often under psychiatric outpatient care (63% *vs* 36%, $\chi^2=9.2$, $p<0.01$) at the time of the index suicide attempt. They also had more previous suicide attempts (70% *vs* 48%, $\chi^2=5.5$, $p<0.05$).

The somatic severity of the index suicide attempt was more severe for those who later committed suicide (χ^2=23.7, d.f.=3, p<0.001). In addition, the intention to die was more often assessed as clear, and therefore the suicide attempt was more often classified as a certain suicide attempt (18% *vs* 3%, χ^2=29.2, d.f.=2, p<0.001). The main subjective reason for the index attempt was more often a wish to die for the later suicide group (63% *vs* 28%, χ^2=16.8, d.f.=8, p<0.05). The suicide attempt was less seldom classified as being impulsive (32% *vs* 65%, χ^2=11.1, p<0.01) for those who later committed suicide. However, those who later committed suicide had not been referred for psychiatric consultation more often than the others (59% *vs* 58%). In regard to referral for psychiatric consultation, 4% of those referred and 3% of those not referred later committed suicide.

5.7.2. Risk of suicide

For estimation of the risk of later suicide, an observed-expected ratio was calculated separately for mild and severe suicide attempts. The severe cases consisted of all those attempts in which the lethality has been assessed as moderate, serious or very serious.The expected suicides among those not referred for consultation was 7 for mild, and 5 for severe, suicide attempts; but the actual suicide figures were 6 and 7, respectively. Among those referred for consultation, the expected suicides were 3 for the mild cases and 18 for the severe cases, while the actual suicide figures were 4 and 16.

The cumulative suicide rate for those having no psychiatric consultation was 2%; and for those referred for consultation it was 3% when the lethality was assessed as mild. When the lethality was assessed as more severe, the cumulative incidence rate became 6% for those not referred for consultation and 4% for those referred for consultation. The relative risk of suicide among those not referred was 0.6 when the lethality was assessed as mild, but 1.6 when the lethality was more severe. In other words when the lethality was severe, those without psychiatric consultation were at a greater risk of suicide than those referred for consultation. The increased risk, however, was not statistically significant within 95% confidence limits.

5.7.3. Risk factors and the effect of psychiatric consultation

Of those who had had no previous psychiatric treatment, 2% committed suicide during the five year follow-up period; and of those who had had previous psychiatric treatment, 4% later committed suicide. For those who had had previous treatment, the annual suicide rate was 2230/100 000 for the first follow-up year and 777/100 000 for the entire follow-up period. Psychiatric consultation appeared to have no effect on the outcome of this risk group.

Of those who had previous suicide attempts, 5% later committed suicide. Especially men had a high suicide mortality rate in this risk group. Psychiatric consultation had no effect on the outcome.

Of these patients whose suicide attempt was assessed as seriously lethal, 21% later committed suicide. Particularly men whose index suicide attempt was assessed as severely lethal had a high suicide mortality rate. There was also some evidence that psychiatric consultation had a positive effect on the outcome in this group, especially when lethality was moderate (2% *vs* 7%). When the lethality was mild, consultation had no effect (3% *vs* 2%) on the outcome.

Of those for whom the intention to die was assessed as certain, 21% later committed suicide. But only 2% for whom it had been assessed as undetermined later committed suicide. In this risk group as well, men were at a greater risk of suicide. When the intention to die was assessed as probable, psychiatric consultation seemed to have a positive effect on the outcome (3% *vs* 11%); but when the intention was undetermined, consultation had no effect.

Of those for whom the main motive for the suicide attempt was a wish to die, 7% later committed suicide. Psychiatric consultation seemed to have a positive effect on the outcome in this group (7% *vs* 11%).

Of those whose index suicide attempt was assessed as non-impulsive, 7% later committed suicide. In this risk group too, psychiatric consultation seemed to have a positive effect on the outcome (6% *vs* 10%). When the suicide attempt was assessed as impulsive, psychiatric consultation had no effect on the outcome (2% *vs* 2%).

6. DISCUSSION

Today, most attempted suicides are self-poisonings which are treated in the emergency department of general hospitals. These patients arouse contradictory feelings among the staff in general hospitals. Patients who attempt suicide need help for their somatic crisis. However, they arouse feelings of irritation and unfavorable attitudes among the staff (Lang et al. 1989). It can also be assumed that staffs' attitudes toward suicide attempters may have an effect on the assessment and treatment of these patients. Attitudes of the staff are highly important in suicide prophylaxis, a point on which most authors on suicidology seem to agree (Schmidtke and Sonnec 1989). The development and use of knowledge and skills in the treatment of attempted suicide patients are also affected by staffs' attitudes (Lang et al. 1989).

The need for psychiatric consultation of all attempted suicide patients has been the topic of many debates. There are differences of opinion concerning the necessity for psychiatric consultation in every case of attempted suicide (Gardner et al. 1982). This study found that attempted suicide patients arouse mixed feelings among the staff responsible for their care. It could be assumed that these feelings and negative attitudes towards patients who attempt suicide could lead to a lower quality of treatment. Therefore, psychiatric consultation provides a better opportunity to treat these patients more professionally. In addition to a sufficient consultation service, the staff in general hospitals also requires more training and supervision in the treatment of attempted suicide patients.

6.1. Staff attitudes toward patients who have attempted suicide

In this study, the attitudes of staff toward patients who have attempted suicide have been investigated using a questionnaire. The limitations of this method for studying attitudes need to be kept in mind, however, the results of this study reflect primarily the staffs' conscious feelings and operational facilities. In addition, one might have further doubts as to how seriously the respondents have taken the study. The high participation percentages, the interest in the results, and the reality of the existing problem, all support the view that the reliability of the study was high.

When comparing the attitudes of the staff in the general hospital with those of the staff in the psychiatric hospital, one must remember that both the character of the work and the patient material are completely different in these hospitals. Further, the staff members' personalities, capabilities and expectations of the work in the emergency department of the general hospital, and in the psychiatric hospital

may be different and may have an influence on their attitudes toward patients who attempt suicide. Those suicide attempters who are treated in the psychiatric hospital are patients whose suicide attempts are assumed to be very serious and/or who were assessed as having a psychiatric disorder which needed treatment in a psychiatric hospital.

There were clear differences in attitudes to attempted suicide patients between the staffs in the general hospital and in the psychiatric hospital. Generally, it can be said that part of the respondents among staff in the general hospital were less sympathetic and their attitudes were more unfavorable towards patients who had attempted suicide. The respondents among staff in the psychiatric hospital were not as harsh, and their attitudes were more sympathetic and more tolerant. In the general hospital, about half of the staff had a positive or an indifferent attitude toward patients who had attempted suicide. About one-third had a negative, and only 5-10% had a very strictly negative, attitude toward attempted suicide patients.

Unfavorable attitudes among the staff in the general hospital correlated with the feeling that the amount of work was too great; with the fact that the respondents had long work experience; and with the fact that at work they were often in direct contact with the patients who had attempted suicide.

The attitudes of the staff in different departments in the general hospital were also different. The staff in the emergency room expressed the harshest and the most negative attitudes, whereas the staff in the intensive care unit had the most positive attitudes. The attitudes expressed by the staff in the emergency ward were quite similar to those expressed in the emergency room, though not quite as harsh. These differences in the attitudes can be explained by various reasons, one of which is the different patient material, while another is different working conditions.

All of the attempted suicide patients are first admitted to the emergency room, where the staff is obliged to work under heavy pressure. There is neither the time nor the resources for comprehensive observation of the patient. This, added to the patient's psychiatric distress, may arouse feelings of insufficiency and anxiety among the staff, especially when the staff is mainly trained to treat somatic illnesses. More over, the staff in the emergency room gets no feedback on their work; information about further development of the patients and their prognosis is not fed back to the emergency room. Consequently, the level of satisfaction derived from the work may remain low, especially when the emergency room is frequently visited by individual patients who make recurrent attempts at suicide by self-poisoning.

Most of the patients transferred to the emergency ward are later referred for psychiatric consultation. Thus the staff can shift part of the responsibility onto the

consulting psychiatrist. The staff in the emergency ward also has good opportunities to cooperate with the psychiatric personnel, which contributes to the formation of positive attitudes.

Only the most serious suicide attempts are treated in the intensive care unit. Treatment mainly consists of maintaining vital functions, but, nevertheless, treatment is comprehensive; all the patient's needs must be taken into consideration.

Unlike the findings of some earlier studies (Ramon et al. 1975, 1978) the negative attitudes in this study were not linked to a person's occupational status, but rather to the object of work and to working conditions. The negative attitudes seem partly to reflect the visions suicide attempters arouse among the staff. The suicide attempter seems to threaten the care-taking person's professional identity, especially when the staff continually work under great pressure.

When asking the staff's opinions on the development of treatment, their main suggestion was that Meilahti Hospital should concentrate only on the most serious cases of attempted suicide. It is noteworthy that this opinion was closely connected to negative attitudes toward attempted suicide patients. The hopes related to the development of treatment seem more to reflect the staff's workload and efforts to make their work situation easier than professionally considered proposals for development of the care of attempted suicide patients.

6.2. Management of patients after a suicide attempt

In a cross-sectional comparison study between the staff of a general hospital and those dealing with psychiatric consultation in a psychiatric hospital, it was found that the staff in a general hospital was well able to assess the somatic severity of a suicide attempt. Both staff groups were quite similar in their ability to assess the intent to die and to plan the necessary after-care. This method of assessment used in this study has proved to be efficient in clinical practice at the Helsinki University Central Hospital; but when evaluating the results it must be kept in mind that actual consultation is different, because the consultant is in direct contact with the person who has attempted suicide.

The results of this study did not answer the question of whether or not a psychiatric consultation is always needed in the evaluation of attempted suicide patients. However, based on the results, it would seem that the staff in general hospital is quite well able to assess the lethality and the intent to die, and to plan the necessary psychiatric after-care. The results support the hypothesis that all patients who attempt suicide should not automatically be referred to psychiatric consultation (Blanck and Pond 1980, Gardner et al. 1977). This none the less does not answer the question of whether or not these patients can be cared for properly without psychiatric consultation. Only a study of actual patients, with a

long-term follow-up could answer that. In all events, an attempted suicide patient must be carefully assessed, including the arrangement of adequate after-care. All high risk groups should be automatically referred for psychiatric consultation. For example, those who often repeat a suicide attempt should always see a psychiatrist, otherwise they may get from the treatment system the same indifferent answer that they might themselves have towards life and death. The treatment system should not strenghten their denial and their idea that a suicide attempt can be passed over without notice.

In the emergency department of Helsinki University Central Hospital, the current practice is that almost every patient who has attempted suicide and who has been admitted to the emergency ward receives psychiatric consultation. Most of the phycisians who have taken care of patients who have attempted suicide were satisfied with the psychiatric consultations concerning these patients, and considered them necessary and useful in the care of patients who attempt suicide.

A total of 1018 self-poisoned patients were treated during one year at the emergency department of Meilahti Hospital for 1207 suicide attempts. Half of them were under 35 years of age. An interesting finding was that 47% of them were men. The overweight of women in sex distribution of attempted suicide patients is found in many studies. For example studies done in Finland before 1970s (Huhtala and Ohela 1952, Ekblom and Frisk 1959, Harenko 1967). In 1970s the amount of men among attempted suicide patients started to grow (Jokinen et al. 1979, Lönnqvist and Ostamo 1988, Palosaari 1990, Pykäläinen and Pakaslahti 1990). Many had had previous psychiatric treatment and had attempted suicide before. Alcohol was also quite often present in these suicide attempts. Almost half of the patients (46%) were left with no psychiatric consultation.

Many physicians in general hospitals who treat patients who attempt suicide do not refer them for psychiatric consultation when the danger of death has been slight and the patient is manifestly not disturbed. This policy may be wrong and can be potentially dangerous. Although the suicide rate for serious attempters can be greater than for the non-serious attempters, the number of actual suicides is greater for the latter group (Rosen 1976, Stengel 1972, Carstairs 1961).

In this study, previous suicidal behaviour did not affect whether or not the patient was referred for psychiatric consultation. This is an important finding, because patients who have previously attempted suicide are at risk for suicide. Those who had previously attempted suicide had often had previous psychiatric treatment and were also quite often under psychiatric outpatient care. Their suicide attempts were less often impulsive, and the reason for the attempt was more often a wish to die. The outcome for this group was significantly poorer than for those who had attempted suicide for the first time.

Those who were treated only in the emergency room were almost always (82%) left without psychiatric consultation. When a referral was made, the patient had usually asked for the opportunity to talk to a psychiatrist or seemed to be manifestly disturbed. It was also found that those who had taken alcohol together with medical drugs were less often referred to a psychiatrist, which is why they were also more often left with no arrenged after-care.

The degree of somatic severity was assessed as less severe and the degree of intention to die was assessed as milder in the group not referred for psychiatric consultation. The essential difference between the two groups was that those not referred for consultation were assumed to be in no mortal danger. It is noteworthy that, in spite of this, there were no differences in the prognosis between those referred for psychiatric consultation and those who were not.

It was presumed that the outcome for those without psychiatric consultation would have been better than for those referred for consultation, because the intention to die and the somatic severity of the suicide attempts among those referred for consultation were more severe and they more frequently had a history of mental disturbance. There are many possible explanations for the finding that the outcome of patients without psychiatric consultation was poorer than expected. One reason may be the fact that 91% of those without psychiatric consultation were also left with no psychiatric after-care. This finding, together with the outcome results, indirectly supports the idea that psychiatric intervention has a positive effect on the outcome of an attempted suicide patient.

It is also possible that, among those without psychiatric consultation, there is a group of people, especially men, who are less motivated to work through their problems, or they may even completely deny them. That may be the reason why some of the suicide attempters seem to escape their problems by drinking. It may also be a reason why the physician in the emergency room does not recognize the need for psychiatric intervention, even though this group constitutes a special risk group for suicide.

The unexpected prognosis for those without psychiatric consultation may also be explained by the large number of alcohol abusers among them. Alcohol addicts are one of the risk groups for suicide, especially when their life circumstances are strikingly disrupted (Murphy 1986). It seems, that in the emergency room, a suicide attempt by an alcoholic is usually assessed as an accidental self-poisoning and is seldom seen as a destructive development of alcoholism calling for intervention.

6.3. Outcome of attempted suicide patients during a five-year follow-up

It is important to estimate whether a person who has made a suicide attempt should be regarded as especially suicide-prone. During the past 20 years, considerable effort has gone into identifying the characteristics of those who attempt suicide who are later most at risk of suicide. In this study, some of the findings of previous studies, such as being a male of advancing age, having a psychiatric disorder and having previous suicide attempts, were also found to be risk factors for suicide (Hawton and Fagg 1988, Pallis et al. 1984). This study also found other risk factors such as moderate to very serious lethality, and a severe intention to die of the index suicide attempt. Further more, those whose suicide attempts were assessed as non-impulsive, or whose main reason for the suicide attempt was a wish to die, were in a high risk group for committing suicide.

The outcome for those attempting suicide in this study was fairly good in relation to the findings of other studies (Ettlinger 1975, Nielsen and Bille-Brahe 1990). Psychiatric consultation seemed to have a positive effect on their outcome. This is based on the finding that there were no differences in prognosis between those referred for psychiatric consultation and those who were not, even though these two groups were quite different and those without consultation were assumed not to be in mortal danger. Especially among men, the outcome of those without psychiatric consultation was rather poor. It appears that among men who are left without psychiatric consultation the risk for suicide is high. On the other hand, those women at greatest risk for suicide seem to be those who were referred for psychiatric consultation.

In estimating the relative risk of suicide, it was found that when the lethality of the index suicide attempt was severe, those without psychiatric consultation were at a greater risk for suicide than those referred for consultation. Standardizing the risk factors also supported the finding that psychiatric consultation had a positive effect on the outcome.

6.4. Recommendations for developing the treatment of patients who have attempted suicide

The current treatment of attempted suicide patients in the emergency department of Meilahti Hospital is based on long, broad experience. The outcome of suicide attempters treated in Meilahti Hospital is fairly good compared to the results of other studies (Ettlinger 1975, Nielsen and Bille-Brahe 1990). Developing the care of attempted suicide patients requires observation of the contents and the structure of treatment. Staff attitudes are important for developing treatment, because knowledge and skill are not sufficient without willingness to improve

treatment. The staff working in the general hospital need close liaison with the psychiatric staff. The psychiatric consultation service should try to improve cooperation with the staff in the emergency room, and meet their need for feedback, information and supervision.

Unfavorable attitudes toward patients who attempt suicide were common, particularly in the emergency room, where the staff has the primary responsibility for these patients. Changing the negative attitudes of the staff is difficult. Providing the staff with ample information about suicide attempters and their backgrounds, and especially on the prognosis of these patients, can change attitudes by supporting professional treatment and preventing spontanous behaviour based upon personal feelings. Increasing competent supervision and changing working conditions is also a way of improving attitudes, and thus indirectly influencing the quality of care. Increasing the number of psychiatric consultations may also have a positive effect on staff attitudes: The staff can shift part of the responsibility onto the consulting psychiatrist, and lessen their feelings of helplessness and insufficiency regarding the treatment of patients who have attempted suicide.

This study found that outcome for those attempted suicide patients not referred for psychiatric consultation was poorer than expected. On this basis it is recommended that the number of those without psychiatric consultation should be reduced. All risk groups, especially, should be referred for psychiatric consultation. Systematic psychiatric consultation when the somatic severity of the suicide attempt is moderate to very serious seems to be the proper practical procedure in treatment of attempted suicide patients and in suicide prevention.

Alcohol abusers are one of the risk groups for suicide. It is recommended that all suicide attempters should be thoroughly assessed in the emergency department with regard to their alcohol use. The suicide attempt can provide an opportunity for recognition of an alcohol problem and be a chance to arrange proper after-care. There should also be closer liaison between general hospitals and local alcoholism treatment units, with the staff of the latter readily available to provide clinical opinions and accept referrals for treatment.

The risk of suicide following an attempted suicide remains high, and these patients need crisis intervention and the availability of arranged psychiatric after-care. This should be noted when planning psychiatric outpatient services in the future. There should also be closer cooperation between the psychiatric consultation service of general hospitals and the local mental health centers.

It can be presumed that the suicide attempt forms a critical period which can change a patient's attitude, the attitudes of those in the treatment system, the method of treatment and the content of the care. Supporting professional treatment and increasing liaison between a general hospital's emergency depart-

ment and a psychiatric outpatient department which includes an adequate psychiatric consultation service, are ways of both directly and indirectly influencing the quality of care, as well as the outcome of a suicide attempter.

7. SUMMARY

The purpose of this study was to evaluate the treatment of attempted suicide patients in a general hospital. Of special interest was the question of the effect of the attitudes expressed by the staff in the emergency department of the general hospital on both patient management and the outcome of these patients. The study also describes the characteristics of unselected consecutive suicide attempters, selection for referral for psychiatric consultation, and the effect of consultation on the outcome, using suicide mortality as the outcome criterion.

The study was carried out at the Helsinki University Central Hospital. Attitudes of the staff were measured by using a questionnaire that included 41 different statements. The subjects were 184 staff members of the emergency department of Meilahti Hospital (general hospital) and 85 staff members of the Department of Psychiatry (psychiatric hospital). The staffs' ability to assess the attempted suicide were evaluated using interviews based on four actual cases of attempted suicide. The physicians' opinions concerning the significance of psychiatric consultation in the care of suicide attempters were evaluated with the help of a questionnaire. The patient material consisted of all consecutive suicide attempts by self-poisoning treated in the emergency room of Meilahti Hospital during 1983: This was a total of 1018 people who made 1207 suicide attempts. Of these patients, 54% were referred for psychiatric consultation. The follow-up period was 5.5 years. Information on death was obtained from the National Registry Center of Finland, and the cause of death from autopsy reports.

The differences in attitudes between the staff in the general hospital and that in the psychiatric hospital were statistically significant. In generally, it can be said that part of the responses of the staff in the general hospital were characterized by harshness and unfavorable attitudes toward patients who have attempted suicide. Further, the attitudes of the staff in the three different units of the emergency department of the general hospital were different: Attitudes were most negative among emergency room staff, where all attempters are treated first. Unfavorable attitudes correlated with the feeling that the workload was too great, with the length of work experience, and with the amount of direct contact staff had with suicide attempters.

The staff in the general hospital was quite well able to assess both the somatic severity and the psychiatric severity of illustrated suicide attempters. They were also able to plan the necessary after-care. Physicians in the emergency department of the general hospital considered psychiatric consultation to be both necessary and useful in the care of patients who have attempted suicide. Psychiatric consultations and opportunities to cooperate with psychiatric personel

can also have a positive effect on staff attitudes toward patients who have attempted suicide and thus indirectly influence the quality of care.

Of the attempted suicide patients treated in the emergency room of Meilahti Hospital during 1983, 46% were not referred for psychiatric consultation. Women were referred more frequently than men. Patients with previous psychiatric treatment were also referred for consultation. The use of alcohol was more frequently present in suicide attempts that did not lead to consultation. The lethality of the attempt was also less severe in this group. It was assumed that those left without consultation were not in mortal danger. Still, there were no differences in the suicide mortality in these two groups during a 5-year follow-up.

In spite of, or because of, the emergency personnel's attitudes, the outcome of suicide attempters was favorable compared with the results of many other follow-up studies. By the end of the 5-year follow-up period, 3% of 1018 suicide attempters had committed suicide, making annual suicide mortality 589/100000. During the first year after the index attempt, the suicide mortality was 1768/100000, a 50-fold risk compared to that of the total population over age 15 in Helsinki. Risk factors included being a male of advancing age, having psychiatric disorders, previous suicide attempts, a non-impulsive index suicide attempt, moderate to very serious lethality, and severe intention to die during the suicide attempt. Of those patients for whom lethality was assessed as very serious, or the intention to die as certain, 21% later committed suicide.

It seems that specialized treatment of suicide attempters makes it possible to treat these patients in a more professional way in a general hospital. The results of this study indirectly indicate that psychiatric consultation seems to have a positive effect on the outcome of the suicide attempter. Systematic psychiatric consultation when the somatic severity of the suicide attempt is moderate to very serious should become a routine procedure in the treatment of suicide attempters in a general hospital. The psychiatric consultation service should also improve cooperation with the staff in a general hospital and offer more information and training concerning the care of suicide attempters. Increasing competent supervision and changing working conditions is also a way to influence the quality of care.

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9. REFERENCES

Achté K, Katila H, Leppävuori A, Lönnqvist J, Salmimies P. Psykiatriset päivystyskonsultaatiot Helsingin Yliopistollisessa Keskussairaalassa (HYKS) vuonna 1984. Helsinki: Tutkimusjulkaisuja, 1/1988.

Ansel E, McGee R. Attitudes toward suicide attempters. Bull Suicidol 1971; 8:22-28.

Barncroft J, Marsack P. The repetitiveness of self-poisoning and self-injury. Br J Psychiat 1977;131:394-399.

Barraclough B, Bunch J, Nelson B, Sainsbury P. A hundred cases of suicide: Clinical aspects. Br J Psychiat 1974;125:355-373.

Beck A, Steer R. Clinical predictors of eventual suicide: A 5- to 10-year prospective study of suicide attempters. J Affective Disorders 1989;17: 203-209.

Black D, Creed F. Assessment of self-poisoning patients by psychiatrists and junior medical staff. J Royal Society of Medicine 1988;81:97-99.

Black D, Pond D. Management of patients after self-poisoning. Br Med J 1980; 281:1141.

Blake D, Bramble M. Self-poisoning: psychiatric assessment by junior staff. Br Med J 1979;1:1763.

Bratfos O. Attempted suicide: A comparative study of patients who have attempted suicide and psychiatric patients in general. Acta Psychiatr Scand 1971;47:38-56.

Carstairs G. Characteristics of the suicide-prone. Proc R Soc Med 1961; 54:262-264.

Creed F, Pfeffer J. Attitudes of house-physicians towards self-poisoning patients. Med Educ 1981;15:340-345.

Cullberg J, Wasserman D, Stefansson C. Who commits suicide after a suicide attempt? An 8 to 10 year follow-up study in suburban catchment area. Acta Psychiatr Scand 1988;77:598-603.

DeFleur M, Westie F. Attitude as a scientific concept. Social Forces 1963; 42:17-31.

Diekstra R. Epidemiology of attempted suicide in EEC. Bibl Psychiatr 1982; 162:1-16.

Diekstra R. Suicide and attempted suicide: An international perspective. Acta Psychiatr Scand 1989;80 (suppl 354):1-24.

Dorpat T, Ripley H. A relationship between attempted suicide and committed suicide. Comprehensive Psychiat 1967;8:74-79.

Dressler D, Prusoff B, Hal M, Shapiro D. Clinician attitudes toward the suicide attempter. J Nerv Ment Dis 1975;160:2:146-155.

Eisenthal S, Farberow N, Shneidman E. Follow-up of neuropsychiatric patients in suicide observation status. Publ Hlth Rep (Wash) 1966;81:977-990.

Ekblom B, Frisk M. Den vid suicidförsök omedelbart angivna subjektiva orsakens relation till recidivfrekvenssen. Nord Med 1959;62:1176-1182.

Ettlinger R. Evaluation of suicide prevention after attempted suicide. Acta Psychiatr Scand Suppl 260. Copenhagen: Munksgaard. 1975.

Gardner R, Hanka R, Evison B, Mountford P, O'Brien V, Roberts S. Consultation-liaison scheme for self-poisoned patients in a general hospital. Br Med J 1978;2:1392-1394.

Gardner R, Hanka R, O'Brien V, Page A, Rees R. Psychological and social evaluation in cases of deliberate self-poisoning admitted to a general hospital. Br Med J 1977;2:1567-1570.

Gardner R, Hanka R, Roberts S, Allon-Smith J, Kings A, Nicholson R. Psychological and social evaluation in cases of deliberate self-poisoning seen in an accident department. Br Med J 1982;284:491-493.

Ghodse A. The attitudes of casualty staff and ambulance personnel towards patients who take drug overdoses. Soc Sci Med 1978;12:341-346.

Ghodse A, Ghaffari K, Bhat A, Galea A, Qureshi Y. Attitudes of health care professionals towards patients who take overdoses. J Int Soc Psychiat 1986;32:4:58-63.

Goldney R. Alcohol in association with suicide and attempted suicide in young women. Med J Aust 1981;2:195-197.

Goldney R, Bottrill A. Attitudes to patients who attempt suicide. Med J Aust 1980;2:717-720.

Greer S, Bagley C. Effect of psychiatric intervention in attempted suicide: A controlled study. Br Med J 1971;1:310-312.

Hansen W, Wang A. Suicide attempts in a Danish region. Soc Psychiat 1984; 19:197-201.

Hawton K. Assessment of suicide risk. Br J Psychiat 1987;150:145-153.

Hawton K, Fagg J. Suicide, and other causes of death, following attempted suicide. Br J Psychiat 1988;152:359-366.

Hawton K, Fagg J, McKeown S. Alcoholism, alcohol and attempted suicide. Alcohol & Alcoholsm 1989;24:1:3-9.

Hawton K, Marsack P, Fagg J. The attitudes of psychiatrists to deliberate self-poisoning: Comparison with physician and nurses. Br J Med Psychol 1981;54:341-348.

Harenko A. Alkoholin osallisuus myrkytysitsemurhayrityksissä Helsingissä 1962-64. Suomen Lääkärilehti 1967;22:109-115.

Hengeveld M, Rooymans H, Vect-van den Bergh R. Psychiatric consultation in a Dutch University Hospital: A report on 1814 referrals, compared with a literature review. Gen Hosp Psychiat 1984;6:271-279.

Huhtala A, Ohela K. Marian ja Kivelän sairaaloissa vuosina 1930-50 hoidetuista uniläämyrkytyksistä. Duodecim 1952;68:698-700.

Kotila L, Lönnqvist J. Adolescent suicide attempts 1973-1982 in the Helsinki area. Acta Psychiatr Scand 1987;76:346-354.

Kreitman N. Parasuicide. Chichester, Wiley. 1977.

Kreitman N, Philip A, Greer S, Bagley C. Parasuicide. Br J Psychiat 1969; 115:746-747.

Lang W, Ramsay R, Tanney B, Tierney R. Caregiver attitudes in suicide prevention: Help for the helpers. In: Diekstra et al ed. Suicide and its prevention: The role of attitude and imitation. Leiden: E.J.Brill, 1989;260-272.

Leppävuori A, Katila H, Lönnqvist J, Achté K, Salmimies P. Emergency psychiatric consultation in a general hospital: A one year survey of 170 consecutive consultations at Helsinki University Central Hospital 1984. Psychiatr Fenn 1989;20:134-144.

Lönnqvist J. A six-year prospective study on influence of psychiatric consultation on the outcome of attempted suicide in a general hospital. Psychiatr Fenn 1985;16:123-135

Lönnqvist J. Suicide in Helsinki: An epidemiological and socialpsychiatric study of suicides in Helsinki in 1960-61 and 1970-71. Monographs of Psychiatr Fenn N:O 8, Helsinki 1977.

Lönnqvist J, Kärhä E. Suicide attempts in Helsinki: Comparison between two treatment systems based on a six-year follow-up study. Psychiatr Fenn 1984;135-145.

Lönnqvist J, Niskanen P, Achté K, Ginman L. Self-poisoning with follow-up considerations. Suicide 1975;5:1:39-46.

Lönnqvist J, Ostamo A. Itsemurhayritykset ja niiden psykiatrinen konsultointi yleissairaalassa. Psychiatr Fenn N:O 80, Helsinki, 1988.

Lönnqvist J, Tolppanen E. Outcome of attempted suicide. In Pichot P, Berner P, Wolf R, Thau K, ed. Psychiatry - the state of art. New York: Plenum Press, 1985;1:889-894.

Morgan H. Death wishes? The understanding and management of deliberate self-harm. Chicester: John Wiley, 1979.

Motto J. Suicide attempts: A longitudinal view. Arch Gen Psychiat 1965;13: 516-520.

Murphy G. Suicide in alcoholism. In: Roy A, ed. Suicide. Baltimore: Williams & Wilkins, 1986;89-96.

Nielsen B, Bille-Brahe U. Attempted suicide - A five-year follow-up. Unpublished data. 1990.

O'Brien S, Stoll K. Attitudes of medical and nursing staff towards self-poisoning patients in a London hospital. Int J Nurse Stud 1977;14:29-35.

Pallis D, Gibbons J, Pierce D. Estimating suicide risk among attempted suicides: II. efficiency of predictive scales after the attempt. Br J Psychiat 1984;144:139-148.

Palosaari U. Itsemurhaa yrittäneiden ohjautuminen psykiatriseen jatkohoitoon. Suomen Lääkärilehti 1990;45:740-743.

Patel A. Attitudes towards self-poisoning. Br Med J 1975;2:426-430.

Platt S, Salter D. A comparative investigation of health workers' attitudes towards parasuicide. Soc Psychiat 1987;22:202-208.

Pykäläinen R, Pakaslahti A. Jorvin sairaalassa hoidetut itsemurhaa yrittäneet potilaat. Jorvin sairaala, Espoo, 1990.

Rajagopal V, Mendonca J. A survey of blood-alcohol levels in self-poisoning cases. Adv Alcohol Subst Abuse 1987;7:1:63-99.

Ramon S. Attitudes of doctors and nurses to self-poisoning patients. Soc Sci Med 1980;14A:317-324.

Ramon S, Bancroft J, Skrimshire A. Attitudes towards self-poisoning among physicians and nurses in a general hospital. Br J Psychiat 1975;127: 257-264.

Ramon S, Breyter C. Attitudes towards self-poisonings among British and Israeli doctors and nurses in a psychiatric hospital. Isr Ann Psychiat 1978; 16:206-217.

Ramon S, Woodhead R. Attitudes towards hypothetical and real self- poisoning patients of physicians in a general hospital. Proceedings of the 9th Int Conf Suicide Prev, Helsinki 1977.

Retterstöl N. Long-term prognosis after attempted suicide. Oslo: Universitetsforlaget and Springsfield: Thomas. 1970.

Ringel E. Der Selbstmord. Vienna: Maudrich, 1952.

Rosen D. The serious suicide attempt: Five-year follow-up study of 886 patients. JAMA 1976; 235:19:2105-2109.

Rosenman S. Subsequent deaths after attempted suicide by drug overdose in the western region of Adelaide, 1976. Med J Aust 1983;2:496-499.

Schmidtke A, Sonneck G. Caregivers' attitudes towards suicide and suicidal patients. Introduction. In: Diekstra et al ed. Suicide and its prevention: The role of attitude and imitation. Leiden: E.J.Brill, 1989;163-166.

Schneider P. La tentative de suicide. Etude statistique, clinique psychologique et catamnestique. Neuchatel, Paris: Delachauz et Niestle, 1954.

Stengel E. Suicide and attempted suicide. 2nd ed. London. Penguin Books, 1971.

Stengel E. A survey of follow-up examinations of attempted suicides. In: Weldenstrom J, Larsson T, Ljungstedt M, ed. Suicide and attempted suicide. Stockholm: Nordisk Bokhandelns Forlag, 1972.

Triandis H. Attitude and attitude change. New York. John Wiley and Sons Inc 1971.

Weissman M. The epidemiology of suicide attempts 1960 to 1971. Arch Gen Psychiat 1974;30:737-746.

Welu T. Psychological reactions of emergency room staff to suicide attempters. Proceedings of the 6th Int Conf Suicide Prev, Mexico, 1972;309-318.

Whittemore K, Nugent J, Boom P. Suicide and the physician: Experiences and attitudes in the community. J Med Association of Georgia 1972;61:307-11.

Wolk-Wasserman D. The intensive care unit and the suicide attempt patient. Acta Psychiatr Scand 1985;71:581-95.