

SUICIDAL COMMUNICATION IN PSYCHIATRIC PATIENTS

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ABSTRACT

In this enquiry a cross-sectional study of hospitalized psychiatric patients was undertaken to assess prevalence and nature of suicidal behaviour. We have been able to delineate these subjects into three categories i.e. non-communicators, partial communicators and definite communicators on the basis of their scores upon suicidal intent questionnaire. A follow up study of these patients which is in progress may further provide knowledge about relationship between predictive criterion and their final outcome.

Behavioural scientists have deeply been concerned with suicide, its occurrence in the mentally ill and also with the need for recognition of certain indicators of suicidal behaviour. Studies have established that suicides have a high incidence of psychiatric morbidity (Roy, 1982; Copas and Robin, 1982). The three phenomena—psychiatric illness, communication of suicidal intent and successful suicide are related to one another but several questions need to be answered before establishing the nature of relationship. Is suicidal communication a part of psychiatric manifestations without any predictive value of suicidal behaviour? What types of suicidal communication are frequently observed in a truly suicidal individual? With which psychiatric illnesses are suicidal communications most frequently associated?

Since suicidal ideas can be noted only when they are communicated explicitly or in a disguised form analysis of the communication or verbalizations seems to be especially important (Pierce, 1981). For the persons harbouring suicidal ideas such communications may be intentional or unintentional (Beskow, 1979). Several studies have reported a high percentage of suicidal communications prior to sui-

cidal behaviour, for instance, Robins *et al.* (1959) and Vail (1959)—50 to 70%, Yessler (1961)—19.8%, Seager and Flood (1965)—21.5%, Rudestam (1971)—60%, Ovenstone (1973)—39.4%, Kovacs *et al.* (1976)—33% and Kraft and Babigian (1976)—Over 50%. The highest percentage has been reported by Dorpat and Ripley (1960) as 83%. Other workers like Schmidt *et al.* (1954), Yessler *et al.* (1961) and Dorpat and Boswell (1963) report that irrespective of the manner of communication employed between one-third and one-half of suicide attempters are reported to have expressed their suicidal intent compared to about two-third of those who complete suicide (Robins *et al.*, 1959; Dorpat and Ripley, 1960; Yessler *et al.*, 1961). It is therefore, apparent that suicidal communication is more often observed in those who are likely to commit suicide.

Psychiatric disorder is an usual if not invariable antecedent to suicide (Birchnell, 1981; Wilkinson, 1982). Several studies have documented an excess mortality due to suicide among psychiatrically ill persons (Fremming, 1947, 1951; Sainsbury, 1956; Stengel and Cook, 1958; Rorsman, 1973; Noreik, 1975; Winokur and Tsuang, 1975; Ciompi, 1976; Tsuang, 1978).

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Psychiatric disorders among persons with completed suicide have been summarized by W. H. O. (1968) and Poldinger (1972). However, much variation is observed with regard to the rate of psychiatric illness in these suicidal individuals. Some investigators have reported it as high as 100% (Dorpat and Ripley, 1960; Ripley, 1963) and 93% (Barracough *et al.*, 1974) while others reported it to be much less-45% (Kraft and Babigian, 1976), 59% (Neal, 1978), and 25.4% (Sharma and Krishan, 1978). James and Levin (1964) mention that out of 494 men and 135 women who committed suicide between 1955 and 1961 in western Australia 10.3% of the men and 17.8% of the women had, at some time previously, been admitted to a psychiatric hospital. Some authors further commented that overall annual incidence of suicide in ex-patients is over 4 times as high for the men and nearly 9 times as high for the women compared to the rest of the population.

AIMS

1. To find out the pattern of suicidal communication in psychiatric patients.
2. To investigate relationship between suicidal communication and nature of psychiatric illness.

METHODOLOGY

Sample of this study was drawn from the in door section of Psychiatry Department, G. M. & Associated Hospitals, Lucknow. The department has a bed strength of 200 patients and present enquiry was restricted to only those patients, who were admitted under the supervision of 3 out of 6 consultants in the department. During the enquiry period of 6 months (October 15, 1979 to April 15, 1980) a total of 461 patients were admitted under the care of these consultants. The present enquiry had certain criteria for selection of the sample and

accordingly 251 subjects fulfilling the undermentioned criteria formed the sample.

1. Availability of Reliable informants:

The sample was restricted to only those admitted patients, where at least one reliable informant could be made available within a period of 2 weeks after admission. In the majority of cases one or both parents, spouse or sibling were available for interrogation.

2. Cooperative and communicative :

Patients were usually interviewed on 3rd or 4th day of their admission after having established working rapport with them. Since the enquiry entailed a detailed interview as well as administration of a suicidal inventory, attempt was made to conduct interview only when the patient was able to communicate and comprehend the questions being asked.

3. Exclusion of organic brain syndrome :

Each case was discussed with the consultant or resident incharge and if there was any suspicion of Organic Brain Syndrome including epilepsy or mental retardation associated with psychiatric illness, the case was dropped at the initial stage or subsequently.

TECHNIQUES OF INVESTIGATION

1. A semi-structured proforma for socio-demographic variables, clinical history, personal and family background and mental status examination.

2. Administration of suicidal intent questionnaire.

A comprehensive proforma was prepared to furnish a detailed account of history of suicidal attempt and threatening as well as suicidal preoccupation. This information was obtained from 3 sources i. e. patient, informant (s) and Consultant Psychiatrist/Resident Incharge.

Suicidal intent questionnaire consisted of 10 items depictive of suicidal thoughts. Subjects scoring 0-1 on this questionnaire were labelled as non-communicators (i.e. no evidence of suicidal thoughts), those scoring 2-4 as partial communicators and those having a score of more than 4 were labelled definite communicators. This scheme of categorization is based upon the normative data collected from normals as well as emotionally disturbed patients (Gupta *et al.*, 1982).

OBSERVATIONS

TABLE 1. *Diagnostic distribution of the sample (N=251)*

Diagnosis	N	%
<i>Schizophrenia :</i>		
—Simple	1	0.4
—Hebephrenic	6	2.4
—Catatonic	10	4.0
—Paranoid	14	2.6
—Residual	6	2.4
—Undifferentiated	120	47.8
Total	157	62.6
<i>M.D.P. :</i>		
—MDP Manic	8	3.2
—MDP Dep.	41	16.3
—MDP Circular but currently manic	2	0.8
—MDP Unipolar Dep.	4	1.6
Total	55	21.9
<i>Neuroses :</i>		
—Anxiety Neurosis	9	3.6
—Neurotic Dep.	12	4.8
—Hysteria	14	5.5
—OCN	3	1.2
—Hypochondriasis	1	0.4
Total	39	15.5

The diagnostic break up of the sample revealed that majority of them were cases of schizophrenia (62.6%) and manic depressive psychosis (21.9%). Subjects with neurotic disorder constituted about one-sixth of the sample.

TABLE 2. *Presentation of Suicidal behaviour in the sample (N=251)*

	N	%
No H/o Suicidal attempt, suicidal threatening or ideation	109	43.4
Evidence of suicidal behaviour (Attempt, threatening, or ideation alone or in combination)	142	56.6
Suicidal attempt	67	26.7
Suicidal threatening	116	46.2
Suicidal ideation	119	47.4

Data analysis revealed that 43.4% subjects had no H/o suicidal attempt, threatening or ideation whereas 56.6% had a H/o attempt, threatening or ideation alone or in combination. Ideation refers to suicidal ideas present at the time of hospitalization as elicited during clinical interview of the patient or informant.

TABLE 3. *Source of information about suicidal behaviour in the studied sample (N=251)*

Source of information	Suicidal attempt		Suicidal threatening		Suicidal ideation	
	N	%	N	%	N	%
<i>Information elicited from patient</i>						
only	21	8.4	17	6.8	45	17.9
<i>Information obtained from the informant only</i>						
	7	2.8	36	14.3	16	6.4
<i>Information available on both the sources</i>						
	39	15.5	63	25.1	58	23.1

It may be worthwhile to take into consideration the source of information regarding suicidal attempt, threatening and ideation. History of suicidal attempt was reported by the patient as well as the informant in 15.5% cases whereas this information was provided by patient only in 8.4% and by informants only in a very small number of cases (2.8%).

Suicidal threatening and suicidal ideas were reported by both (patient as well as informant) in nearly one-fourth cases. Further, suicidal ideation was more frequently elicited from the patient as compared to the informant whereas a reverse trend was in regard to suicidal threatening. On the whole, information about suicidal behaviour could be made available from both the sources in majority of positive cases.

TABLE 4. *Suicidal communication in major diagnostic groups*

Diagnosis	Non-communicator (SIQ Score 0-1)		Partial communicator (SIQ Score 2-4)		Definite communicator (SIQ Score 5-20)	
	N	%	N	%	N	%
Schizophrenia (N=157)	60	38.3	57	36.3	40	25.4
MDP (N=55)	11	20.0	12	21.8	32	58.2
Neuroses (N=39)	9	23.1	13	33.3	17	43.6
Total (N=251)	80	31.9	82	32.6	89	35.5

TABLE 5. *Relationship of suicidal attempt, suicidal threat, suicidal ideations and SIQ categorization.*

Diagnostic group	N	Suicidal Attempt		Suicidal Threatening		Suicidal Ideas	
		N	%	N	%	N	%
Schizophrenia	157	41	26.1	55	33.0	52	33.0
Non-communicator	60	0	0	2	3.3	2	3.3
Partial Communi.	57	18	31.6	22	38.6	22	38.6
Definite Communi.	40	23	57.5	31	77.5	28	70.0
M.D.P.	55	13	23.6	35	63.6	43	78.2
Non-Communicator	11	0	0	0	0	1	9.1
Partial communi.	12	4	33.3	8	66.6	11	91.1
Definite communi.	32	9	28.1	27	84.4	31	96.9
Neuroses	39	13	33.3	26	66.7	24	61.5
Non-communicator	9	0	0	0	0	0	0
Partial communi.	13	3	27.0	9	69.2	7	53.8
Definite communi.	17	10	58.8	17	100.0	17	100.0
Total	251	67	26.7	116	46.2	119	47.4
Non-communicator	80	0	0	2	2.5	3	3.8
Partial communi.	82	25	30.5	39	47.6	40	48.8
Definite communi.	89	42	47.2	75	84.3	76	85.4

$X^2=60.2, d.f.=2, p<.001$ $X^2=113.4, d.f.=2, p<.001$ $X^2=112.7, d.f.=2, p<.001$

Above table-4 shows diagnostic distribution of various categories of suicidal communicators. Out of 157 cases of schizophrenia 25.4% were definite communicators while 36.3% and 38.3% were partial and non-communicators, respectively.

In the MDP group of 55 subjects, more than half (58.2%) were definite communicators and about 1/5th were partial and non-communicators each.

In neurotic patients 43.6% were definite communicators and 33.3% partial communicators. Non-communicators in this group were only 23.1%.

It is obvious from the above table-5 that history of suicidal attempt is present in 1/3rd of the neurotics, mostly among cases of neurotic depression. Nearly 1/4th of schizophrenics and MDP patients also had history of suicidal attempt. Evidence of suicidal threatening and ideation was almost double in its frequency among cases of MDP and neuroses as compared to schizophrenia.

TABLE 6. *History of previous psychiatric episodes*

No. of episodes	Non- communi. (N=80)		Partial communi. (N=82)		Definite communi. (N=89)	
	N	%	N	%	N	%
No previous episode	52	65.0	47	57.3	41	46.0
One or two episodes	20	25.0	28	34.1	37	41.6
More than two episodes	8	10.0	7	8.6	11	12.4

$\chi^2=6.1$, d.f.=1, $p<.02$

The above table reveals that definite communicators had significantly larger number of cases having history of one or more psychiatric episodes as compared to non-communicators ($p<.02$).

DISCUSSION

In view of the fact that very few studies have been done in this country to assess suicidal communication in psychiatric patients, the findings emerging from this study may have due significance.

Analysis of communication of suicidal intent in suicides by Robins *et al.* (1959) revealed that in 73% of the completed suicides ideas had been expressed within less than one year and in 43% in less than 3 months. Further they observed that half of those who had talked of suicide for longer than one year, had shown an increase in frequency of communication within one year. Thus the frequency of communication increased nearer to the event.

In the present study the patients themselves were questioned about their suicidal intent during the last 3 months instead of enquiring from their relatives retrospectively as reported in certain earlier studies (Robins *et al.*, 1959; Vail, 1959; Dorpat and Ripley, 1960; Rudestam, 1971; Beskow, 1979). In retrospective enquiries there is likelihood of missing suicidal communication in some cases as relatives may not remember it. Moreover, in view that suicidal communication of patients in our study had been further confirmed with the relatives and attending psychiatrist, there is least risk of missing any patient with suicidal communication.

Secondly, in addition to high score on SIQ in definite communicators, evidence of other suicidal behaviour elicited from relatives confirmed their suicidal intent. These behaviours were suicidal ideas or threats during last 3 months and/or attempt during last 3 years.

In the present enquiry 56.6% subjects out of total sample had evidence of suicidal behaviour (Suicidal attempt or threat or ideation alone or in combination). 26.7% subjects had a history of suicidal attempt, 46.2% had suicidal threatening and in

47.4% there was evidence of suicidal ideas. Thus suicidal threatening and ideas are more frequently observed as compared to suicidal attempt. High frequency of suicidal ideas in psychiatric patients has also been observed by Mintz (1970), Schwab *et al.* (1972) and also by Paykel *et al.* (1974).

In our study 17.9% subjects admitted their suicidal ideas to attending psychiatrists or investigator during clinical interview. This finding is in correspondence with the study of Robins *et al.* (1959). Further, suicidal attempt in this study was reported in 15.5% cases by the patient as well as the informant, whereas this information was provided in 8.4% cases by patients only and in 2.8% cases by informants only. This could be due to tendency of relatives to hide history of attempted suicide due to social reasons and legal implications. On the other hand, suicidal ideation was more frequently elicited from the patient as compared to informant. More than double is the percentage of subjects who had expressed suicidal ideas to psychiatrists than to relatives. This higher frequency may be owing to increased faith of the patient in psychiatrist. Conversely suicidal threatening was more often reported by the relatives than by the subjects themselves. This is also in conformity with the observations of Robins *et al.* (1959). Thus elicitation of information about suicidal communication from the informant is also equally important.

On SIQ one fourth (25.4%) of schizophrenic subjects were found to be definite communicators whereas number of manic depressives and neurotics was considerably high—58.2% and 43.6% respectively. Thus it is explicit that suicidal behaviour is expressed more by manic depressives and neurotics. Higher frequency of suicidal communication in manic depressive subjects has also been reported by Delong and Robins (1961).

81.8% of manic depressives in our samples had depression either in the form of unipolar or bipolar depression. Thus our study supports the observation of other workers that there is an intimate relationships between depression and suicidal behaviour (Beck, 1967; Silverman, 1968; Guze and Robins, 1970; Mundra, 1980; Venkoba Rao and Nammalvar, 1979). If number of cases of neurotic depression is also included in M. D. P. depressed, it would further raise the incidence of suicidal behaviour in depressives.

Suicidal attempt has been reported in about 1/5th of the neurotics in the present study. This high figure may be due to the fact that firstly our sample of neurotic subjects was quite small, secondly majority of the cases were of neurotic depression (30.8%) and hysteria (35.9%). A high incidence of suicidal attempt in hystericals may be as a part of their demonstrative behaviour. Okasha and Lataif (1979) have also reported that hysterical neurosis was diagnosed in 26% cases of the attempted suicide. Neal (1978) found that 85% suicidal attempters were suffering from reactive depression, while Whitelock and Schapira (1967) reported 26% cases of reactive depression.

To ascertain the predictive value of the suicidal intent questionnaire, attempt is being made to have a systematic follow-up of all those subjects who have been categorized as 'definite communicators' on the basis of their scores upon the questionnaire. All the subjects belonging to Lucknow City had been requested to report to the investigators at a regular period of 3 to 4 weeks for purposes of effective management.

REFERENCES

- BARRACLOUGH, B. (1972). Suicide prevention, recurrent affective disorders and lithium. *Brit. J. Psychiat.*, 128, 391.
 BARRACLOUGH, B. M.; BUNCH, J.; NELSON, B. AND SAINSBURY, P. (1974). A hundred cases

- of suicide. Clinical aspects. *Brit. J. Psychiat.*, 125, 355.
- BECK, A.T. (1967). Depression : Clinical, experimental and theoretical aspects. New York, Harper Medical Division, Harper and Row.
- BESKOW, JAN (1979). Suicide and Mental disorder in Swedish men. *Acta. Psychiatrica—Scandinavia Suppl.*, 277, 100.
- BRITCHNELL, J. (1970). The relationship between attempted suicide, depression and parent death. *Brit. J. Psychiat.*, 116, 307.
- BIRCHNELL, J. (1981). Some familial and clinical characteristics of female suicidal psychiatric patients. *Brit. J. Psychiat.*, 138, 381.
- CROMPI, L. (1976). Late suicide in former mental patients. *Psychiat. Clin.*, 9, 59.
- GOPAE, J. B. AND ROBIN, A. (1982). Suicide in psychiatric inpatients *Brit. J. Psychiat.*, 141, 503.
- DALGAARD, O. S. (1966). Mortality used Fauksjuella, *Psyoser, Nord. Med.* 75, 680-684 Quoted from Jan. Beskow (1979). Suicide and mental disorder in Swedishman. *Acta. Psychiatrica Scand.*, Supplementum 277. Munksgaard: Copenhagen.
- DELONG, W. B. AND ROBINS, E. (1961). Communication of suicidal intent prior to psychiatric hospitalization : A study of 87 patients. *Am. J. Psychiat.*, 117, 695.
- DORPAT, T. L.; AND RIPLEY, H. S. (1960). A study of suicide in the Seattle area. *Comprehensive Psychiatry*, 8, 349.
- DORPAT, T. L. AND BOSWELL, J. W. (1963). An evaluation of suicidal intent in suicide attempts. *Comprehensive Psychiatry*, 4, 117.
- FREMMING, K. H. (1947). Sygramssisekoen for sind Sliderser og andre sgade lige abnormbelstande I den denske gennemsuits be talkring. Egner Munksgaard, Kopenhagen. Quoted from: Jan. Baskow (1979) : Suicide and Mental disorder in Swedish Man. *Acta. Psychiatrica Scandi Supplementum*, 277. Munksgaard: Copenhagen.
- FREMMING, K. H. (1951). The expectation of mental intrunity in a sample of the Danish population. Casell, London.
- FREY, T. (1972). In Waldenstrom, J., Larson, T. and Lgunstødt, N. (eds.). Suicide and attempted suicide Skandia international symeporia. Nordiska Bokhandeln Forlang. Stockholm, 214.
- GUPTA, S. C., ANAND, R. AND TRIVEDI, J. K. (1983). Development of Suicidal Intent Questionnaire, *Indian J. Psychiat.*, 25, 1, 57.
- GUZE, S. B. AND ROBINS, E. (1970). Suicide and Primary affective disorders. *Brit. J. Psychiat.*, 117, 437.
- HELGASON, J. (1964). Epidemiology of mental disorders in Iceland. A psychiatric and demographic investigation of 5395 Icelanders. *Acta. Psychiat. Scand.*, Suppl., 1973.
- JAMES PIERCE AND LEVIN, S. (1964). Suicide following discharge from psychiatric hospital. *Arch. Gen. Psychiat.*, 10, 43.
- KOVACS, M., BECK, A. T. AND WEISSMAN, A. (1976). The communication of suicidal intent. *Archives Gen. Psychiat.*, 33, 198.
- KRAFT, D. P. AND BABIGIAN, H. M. (1976). Suicide by persons with or without psychiatric contacts. *Archives Gen. Psychiat.* 33, 2, 209.
- MINTZ, R. S. (1970). Prevalance of persons in the city of Los Angeles who have attempted suicide. *Bull. Suicide No.* 7, 9.
- MUNDRA, V. K. (1980). Attempted suicide : Calls for Psychiatric emergency care, *Medical Times Bombay, Vol. X, No. 5, 3.*
- NEAL, C. D. (1978). A survey of attempted suicide in schizophrenics, *Social Psychiatry*, 24/1, P. J.
- NOREIK, K. (1975). Attempted suicide and suicide in functional psychosis. *Acta. Psychiat. Scand.*, 52, 81.
- OKASHA, A. AND LATAIF, F. (1979). Attempted suicide—An Egyptian study. *Acta. Psych. Scand.*, 60, 69.
- OVENSTONE, I. M. K. (1973). Spectrum of suicidal behaviour in Edinburgh. *Brit. J. Prev. Soc. Med.*, 27, 27.
- PIERCE, D. W. (1981). A predictive validation of a suicide intent scale : a five year follow-up. *Brit. J. Psychiat.*, 139, 391.
- POLDINGER, W. (1972). Suizidalital, depression and anget. In Krelholz, P. (eds.) (1972). Depressive Zustande erckennung beveurtung, behandlung. Verlag Hands Huber Beon. Quoted from : Jan Berkow (1979) : Suicide and mental disorder in Swedish man. *Acta. Psychiatrica Scand. Supplementum* 277. Munksgaard. Copenhagen.
- PAYKEL, E. S., MYERS, J. K., LINDENTHAL, J. J. AND TANNER, T. (1974). Suicide feelings in the general population. A prevalence study. *Brit. J. Psychiat.*, 124, 460.
- RORSMAN, B. (1973). Suicide in Psychiatric patients : A comparative study. *Social Psychiatry*, 8, 55.
- RIPLEY, H. S. (1963). Suicidal behaviour in Edinburgh and Seattle. *Am. J. Psychiat.*, 130, 995.
- ROBINS, E., MURPHY, G. E., WILKINSON, R. H., GASSNER, S. AND KAYER, J. (1959). *Am. J. of Public Health*, 49, 888.
- ROY, A. (1982). Suicide in chronic schizophrenia. *Brit. J. Psychiat.*, 141, 171.

- RUDESTAM, E. K. (1971). Stockholm and Los Angeles Cross cultural study of the communication of suicidal intent. *J. Consult. Clinical Psycho.*, Vol. 36, No. 1, 82.
- SAINSBURY, P. (1956). *Suicide in London. An ecological study.* Maudsley Monograph No. 1. The Institute of Psychiatry Chapman and Hall Ltd., London.
- SATHYAWATI, K. (1971). Attempted suicide in psychiatric patients. *Indian J. Psychiat.*, 13, 37.
- SCHWAB, J. J., WARHETT, G. J. AND HALZER, C. E. (1972). Suicidal ideation and behaviour in a general population. *Dis. Nerv. Syst.*, 33, 745.
- SILVERMAN, G. (1968). The epidemiology of depression—A review. *Am. J. Psychiat.*, 124, 883.
- SEAGER, G. P. AND FLOOD, R. A. (1965). Suicide in Bristol. *Brit. J. Psychiat.*, 111, 919.
- SCHMIDT, E. H., NEAL, O. P. AND ROBINS, E. (1954). Evaluation of suicidal attempts as guide to therapy. *JAMA*, 155, 549.
- SHARMA, S. D., AND KRISHNA GOPAL, R. (1978). Suicide—A retrospective study in a culturally distinct community of India. *Social Psychiatry*, 24/1, 13.
- STENGEL, E. AND COOK, N. G. (1958). *Attempted suicide. Its social significance and effects.* Maudsley Monograph No. 4, London: Chapman and Hall.
- TEMOCHE, A., RUGH, T. F. AND MAC MOHAN, B. (1964). Suicide rate among current and former mental institution patients. *J. Nerv. Ment. Dis.*, 138, 124.
- TUCKMAN, J. AND YOUNGMAN, W. F. (1963). Identifying suicide risk group among attempted suicides. *Public Health Rep.*, 78, 763.
- TSIANG, MING, T. (1978). Suicide in schizophrenias, Manics, Depressives and Surgical controls. *Arch. Gen. Psychiat.*, 35, 153.
- VAIL, D. J. (1959). Suicidal and Medical responsibility. *Am. J. Psychiat.*, 115, 1006.
- VENKOBARAO, A. AND NAMMALVAR, N. (1979). Death Orientation in Depression. *Ind. J. Psychiat.*, 22, 199.
- WALK, D. (1967). Suicide and community care. *Brit. J. Psych.*, 113, 1381.
- WHITELOCK, F. A. AND SCHAPIRA, K. (1967). Attempted suicide in New Castle upon Tyne. *Brit. J. Psychiat.*, 113, 423.
- WILKINSON, D. G. (1962). The Suicide rate in Schizophrenia. *Brit. J. Psychiat.*, 140, 138.
- WINOKUR, G. AND TSUANG, M. T. (1975). The IOWA 500 suicide in mania, depression and schizophrenia. *Am. J. Psychiat.*, 132, 630.
- World Health Organization (1968). Prevention of suicide. Health Paper 38, Geneva, W. H. O.
- YESSLER, P. G., GIBBS, J. J. AND BEEKER, H. A. (1961). On communication of suicidal ideas, II. Some medical consideration. *Arch. Gen. Psychiat.*, 5, 12.