SUICIDE ASSOCIATED WITH RISK FACTORS IN PATIENTS SUFFERING FROM DEPRESSION

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ABSTRACT:

OBJECTIVES:

The purpose of this study was to assess suicide and their relationship with risk factors i.e. degree of hopelessness, severity of depression and suicidal ideations.

METHODOLOGY:

It was a cross sectional study conducted in Psychiatry unit Khyber Teaching Hospital Peshawar. The total sample of this study was forty-eight admitted patients. Those patients were included in the study that scored moderate to high in Hamilton Depression Rating Scale (HDRS), Hopelessness Scale and Reasons for Living Inventory (RLI). The collected data were analysed using SPSS version 22.

RESULTS:

Study showed that reasons for living as well as the subscales of reasons for living inventory i.e. responsibility towards family, hope of improvement and surviving and coping beliefs have significant inverse correlation with score on Hopelessness Scale and suicidal ideations. The score on subscale religious beliefs had significant correlation only with score on hopelessness. Married individuals' responses were different on total reasons for living to a significant extent. The patients with past psychiatric history had significantly greater fear of suicide. The three different social groups did not differ to a significant extent in scoring on reasons for living.

CONCLUSION:

The reasons for living as a whole and some of the subscales of Reasons for Living Inventory have significant inverse relationship with suicidal risk factors showing the modulatory effect of these reasons on suicidal risk. Moreover, these reasons are not equally distributed among some of the sociodemographic and clinical groups.

KEYWORDS: Hopelessness, Suicide, Fear, Religious Belief, Psychiatry

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INTRODUCTION:

Depressive illness is the fourth leading cause of the global burden of disease (GBD)[1]. Moreover, depressed people are at high risk of suicide. More than 50% of suicides are attributed to an episode of major depression[2, 3]. In the past it was a commonly held belief that suicide was the problem of western industrialized countries but now it is a major health problem even in developing countries[4, 5]. A study has reported that 5000 people attempted suicide between 1997-1999 in Pakistan. Despite this fact it is a poorly studied subject in our country[4, 6]. There is a lot of research on identifying various risk factors for suicidal behavior throughout the world. But the factors that protect an individual from acting on suicidal urges have little been studied. This is even though the lower rates of suicides have mainly been attributed to the protective influence of religion and family[7-9]. Research has shown that patients who struggle with their suicidal urges have reasons that help them in protection from acting on their suicidal thoughts. These reasons represent various socio-cultural and religious factors and a scale has been designed to assess these reasons[10]. Hopelessness, suicidal ideations and degree of depression are the main determinants of suicidal risk[7]. The main focus of preventive efforts, against suicide and deliberate self-harm, has been to address the risk factors. Augmenting the protective factors against the suicide can also be helpful in preventing the suicide and deliberate self-harm. The nature of various protective factors and their relationship with the risk factors can help to identify the strategies for effective interventions in reducing suicide and deliberate self-harm. The present study aims at finding the relationship between the risk factors and the protective factors mentioned above. In addition, the proportion of these factors in different socio-demographic and clinical groups will also be studied.

METHODOLOGY:

A cross sectional study conducted in psychiatry unit of Khyber Teaching Hospital Peshawar (May-November 2018). 48 patients were selected for this study through systematic sampling technique. The inclusion criteria of the patients were having greater than 17 score on HAM-D, age range of 15 to 65 years and the ability to communicate properly. All those patients who either did not give

informed consent or their depressive illnesses were secondary to organic and other psychiatric disorders like schizophrenia or substance abuse were excluded. Semi structured interview was conducted for associated clinical characteristics and diagnosis of depression according to the ICD-10 criteria. The questionnaires used in this study are Hamilton Depression Rating Scale (HDRS) for rating of severity of depression[10], Beck Hopelessness Scale (BHS) for measurement of degree of hopelessness[11] and Reasons for Living Inventory (RLI). RLI was used to assess the various reasons given by the patients for not acting on suicidal urges. The data was analyzed with the help of SPSS version 22. Spearman's correlation analysis was used to find out strength and direction of correlation of total scoring on reasons for living and

scores on subscales of RLI with degree of hopelessness, suicidal ideations and score on HDRS. F-test was administered for comparisons of mean scores of groups like married and single individuals on total reasons for living and subscales of RLI like responsibility towards family and religious beliefs.

RESULTS:

The analysis of reasons for living given by the patients showed that responsibility towards family was considered as the most significant protective factor against suicide both in males and females. This was closely followed by the religious beliefs.

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Table 1: Protective Factors and their Mean Score

Reasons	Mean	Standard Deviation
Responsibility Towards Family	8.08	2.81
Religious Beliefs	7.28	2.35
Hope of Improvement	5.78	2.12
Survival and Coping Beliefs	5.62	1.78
Fear of Social Disapproval	5.18	1.60
Child Related Concern	4.94	3.97
Fear of Suicide	3.88	1.45

Total score on reasons for living was inversely correlated with score of hopelessness and suicidal ideations to a statistically significant extent i.e. at significance level <0.01 and 0.05, while with score on HDRS their relation was negative but not statistically significant. Among the subscales of RLI, responsibility towards family, hope of improvement and surviving and coping beliefs also had statistically significant correlation with hopelessness and suicidal ideations. Religious beliefs had significant inverse correlation with hopelessness only (r= -.411, P<0.01). The three subscales i.e. fear of social disapproval, child related concern and fear of suicide did not have any significant inverse correlation with scores of hopelessness, HDRS and suicidal ideations.

Table 2: Correlations of The Scores of All Reasons as a Whole and The Subscales of RLI with Scores on HDRS, Hopelessness and Suicidal Ideation

Factors	Score of Hopelessness	Score of Suicidal Ideations	HDRS Score
Total Scores on Reasons by Every Individual	-.435	-.329*	-.123
Responsibility Towards Family	-.287*	-.329*	.029
Religious Beliefs	-.411**	-.278	-.085
Hope	-.579**	-.407	-.156
Surviving and Coping Beliefs	-.381**	-.470	-.107
Fear of Social Disapproval	-.225	-.140	-.026
Child Related Concern	-.023	-.240	-.014
Fear of Suicide	-.198	-.203	-.083

**<0.01

*<0.05

NOTE: Values are of Spearman's correlation coefficient.

There was no statistically significant difference on various subscales of RLI between married and single subjects. However, there is statistically significant difference between the two groups on total RLI scores (Df=1, f=6.383, P<0.05) and on the subscale of child related concern (Df=1, f=105.681, P<0.001) as shown in Table 3. Table 4 shows the individuals having past psychiatric history differed to a statistically significant extent only in scores on subscale, fear of suicide (Df=1, f=4.067, P<0.05).

Table 3: Significance of Difference Between Married and Single Individuals in Scoring on Reasons for Living as a Whole and The Subscales of RLI

Factors	Mean Score of Unmarried Patients	Mean Score of Married Patients	Df.	F.	Sig.
All Reasons for Living	34.56	42.94	1	6.383	0.015
Responsibility Towards Family	8.00	8.12	1	0.019	0.892
Religious Beliefs	6.75	7.53	1	1.204	0.278
Hope of Improvement	5.50	5.91	1	0.405	0.528
Surviving and Coping Beliefs	6.06	5.41	1	1.463	0.232
Fear of Social Disapproval	3.69	4.41	1	2.289	0.137
Child Related Concern	0.19	7.18	1	105.681	0.000
Fear of Suicide	3.87	3.88	1	0.000	0.987

Table 4: Comparison of patients score with and without psychiatry history

Factors	Mean Score of Patients with Past Psychiatry History	Mean Score of Patients without Past Psychiatry History	Df.	F.	Sig.
All Reasons for Living	42.91	39.51	1	.741	.394
Responsibility Towards Family	7.82	8.15	1	.121	.730

Religious Beliefs	7.45	7.23	1	.076	.783
Hope of Improvement	6.55	5.56	1	1.868	.178
Surviving and Coping Beliefs	5.91	5.54	1	.366	.548
Fear of Social Disapproval	4.64	4.05	1	1.151	.289
Child Related Concern	5.91	4.67	1	.837	.365
Fear of Suicide	4.64	3.67	1	4.067	.049

DISCUSSION:

Although suicide has not been adequately addressed in local literature[4], several studies in our country as well as in other countries of the region specifically India, have addressed related issues. Nunni and Mani, for example, explored psycho demographic profile of suicidal ideations; Srivastavasa and Kulshreshta found low positive correlation between severity of depression and suicide; and Narang et al, showed that mood disorder was the most common psychiatric illness in suicidal patients[13,14,15]. On an extensive search into the local literature and Extra Med, we could not find a study on similar subjects. Therefore the findings of the present study could only be compared with those of the studies conducted mostly in U.S and U.K. These comparisons will have inherent limitations of widely different socio-cultural settings. This study aimed at finding relationship between risk factors and protective factors of suicide. It was found that the total score on all reasons for living had significant inverse correlation with scores on hopelessness and suicidal ideations. These findings are consistent with the findings of Malone et al,[7] and Mann et al,[16]. Both studies reported very significant negative correlation between scores of all reasons for living and hopelessness[7,16]. These findings support the possible modulatory effect of the reasons for living on suicidal risk. An inverse relationship between the two sets of factors suggests that the reasons for living given by the patients have a protective influence. These reasons seem to counteract the influence of risk factors. The study also attempted to analyze correlations of scores on different subscales of RLI with scores on hopelessness, HDRS and suicidal ideations to know the relative importance of these subscales or factors. We found that all these factors at least had negative correlation with all the three risk factors separately. However, scores on two protective factors i.e. responsibility towards family and surviving and coping beliefs had significant inverse correlation with scores on hopelessness and suicidal ideations. Score on religious beliefs had significant inverse correlation

only with hopelessness. The literature on the whole seems to support the hypothesis that religion and family cohesion are associated with lower scores on suicidal ideations[17-20]. Therefore, it appears that the responsibility towards family and the religious beliefs are two main antagonists of hopelessness and suicidal ideations. This is also evident from the fact that these two factors were rated as the two commonest reasons for living. It has been acknowledged that religious beliefs and some socio-cultural traditions do influence the extent and severity of suicidal mortality and mental health as a whole. Various religious and socio-cultural traditions, in the Asians and other ethnic minorities, seem to play a protective role in mental health. This might partially explain the lower rates of suicide reported in Bangladeshis and Pakistanis when compared with other ethnic groups[21,22]. But this aspect has been largely ignored in cross-cultural research[23,24]. There was a significant difference between married and single individuals on scores of total reasons for living. This was accounted mainly for by the score of married patients on child related concern. As previous literature shows that single people commit suicide more than married individuals[24]. It is possible that child related concern might partially be responsible for the relatively greater protection for married individuals against suicidal acts. This, however, needs to be studied further in studies incorporating proper controls. The difference in scoring on total reasons for living was not significant between the two age groups i.e. above and below 40 years. It is an interesting finding and needs to be replicated in an older adult population. Subjects with history of a psychiatric illness scored significantly higher on the subscale for fear of suicide. But there was no statistically significant difference in scoring on total reasons for living. This finding is interesting. It appears that individuals who had past psychiatric history of depression developed fear of suicide. Moreover, the study has also shown that groups based on available support i.e. poor, fair and excellent varied to a significant extent in scoring on hopelessness but did not vary significantly in scoring on HDRS and total reason for living. This finding suggests that level of social support is not a determinant of RLI. So, it appears that reasons for living constitute an independent cognitive schema, not influenced by difference in age and level of support available to the individuals. However, this hypothesis needs to be tested in further studies. The score on HDRS did not bear significant correlation with reasons for living. Malone et al,[7] has shown that score on Beck Depression Inventory has significant inverse relationship with score on reasons for living. In the literature, the difference has been attributed to the fact that HDRS measures subjective depression while Beck Depression Inventory measures objective depression[7,16]. This study is an attempt to explore the different dimensions of various reasons for not acting on suicidal ideas and urges.

CONCLUSION:

The present study has the following practical implications; Assessment of Reasons for living should be considered as important as that of risk factors while assessing suicidal risk in depressed patients. It has been demonstrated that depressed and suicidal patients have negative cognitive sets. While reasons for living seem to have modulatory effect on suicidal risk. These reasons may possibly be used in psychotherapeutic interventions like cognitive behavioral therapy (CBT) and rational emotive behavioral therapy (REBT) for depressed and suicidal patients. These may help to modify distorted cognitive schema and challenge negative thoughts of a depressed patient. Cross-cultural research regarding the protective factors against suicide will be of utmost importance in highlighting the positive value of different socio-cultural and religious traditions.

LIMITATIONS:

One of the limitations of the study includes a relatively small sample size. This was due to fact that we have limited resources. The study had no funding. Another limitation is lack of a proper control group. Further research is needed on larger samples while incorporating proper controls.

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