Research Journal of Biological Sciences 3 (5): 480-485, 2008
ISSN: 1815-8846

Degree of Suicidal Intent and Religious Practice

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Abstract: Many studies have been conducted on various aspects of suicide in different countries and many researchers have emphasized on understanding the relationship between cultural background and suicide. Research in this country has shown that most of Iranians look at the religion as a protective factor in stressful situations. Current study aims to evaluate the relationship between the degree of suicidal intent and religious activities. Two groups were selected. The cases were chosen from Deliberate Self Poisoning (DSP) patients presenting to Accident and Emergency (A and E) Department of a university hospital in Sari, an Iranian city located at the southern border of Caspian Sea. Control group consisted of those patients who have been referred to the same department for other reasons (without any history of deliberate self harm). Possible risk factors of suicide, severity of suicidal intent and religious practice were compared in two groups. Data were analyzed by descriptive statistics, Spearman rank correlation, Mann-Whitney test and logistic regression. Two groups were matched for age, sex, education and socioeconomic state. Mean for severity of suicidal intention in cases was 22±6.5 (Range 6-34). There was no statistically significant difference between two sexes. Mean score for religious practice was the same in two sexes both in case and control group. There was a statistically significant association between the degree of suicidal intent and scores in religious practice. But the mean score for religious practice was greater in controls than cases. Although cases used religious coping mechanisms, these were employed less than they were used in the controls. It seems that with more severe suicidal ideation, more use of religious mechanisms occurred. However, this was less than control group who did not have a history of suicidal attempt.

Key words: Suicidal intent, religious practice, degree, DSP

INTRODUCTION

It is well documented that suicide is viewed very differently in different cultures (Farberow and Simon, 1975), so many researchers stressed on the cultural attributes of suicide.

Masaryk (1881) and Morselli (1879) both noted that in a given district or area, Catholics seemed to have lower suicide rates than Protestants. Durkheim (1897) stressed not the socioeconomic and secularization correlates of suicide, but rather how religion itself can influence the daily life of the individual. He therefore, came to the conclusion that the more integrated a person was into society, the less would be the chance of his (her) suicide.

Critics of Durkheim have argued that any differences between Protestants and Catholics are (or have been) small or due to other variables. Reanalysis of Durkheim's data has shown that once socioeconomic differences are controlled, Protestant and Catholic nations have had and probably continue to have similar suicide rates (Stack, 1981).

Durkheim's theories were based not only on Christians, but also on Jews, who had very low suicide rates. For the first time Simpson and Conklin (1989) by using a 71 nation cross-national analysis, showed that Islam does have an independent effect in decreasing the rate of suicide, thus confirming Durkheim's hypothesis that religion itself is important as an independent factor in studying suicide.

It has been suggested that orthodox beliefs and religious affiliation are the best predictors of lower suicidal ideation and attempt (Neelman, 1998; Neelman and Lewis, 1990; Hilton *et al*., 2002). Iranian studies have shown that Suicide has a strong negative association with praying (Bahrainian, 2001) and the rate of suicide and DSH drop considerably in 3 Holly months of Moharram, Safar and Ramadan in Muslims Calendar (Yaqubi *et al*., 2001).

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Current study aims to compare the degree of suicidal intent and religious activities in a case control study in a university hospital in a northern city of Iran in the southern border of Caspian Sea, Sari which has a total population of more than 500000.

MATERIALS AND METHODS

The study population consisted of fifty consecutive admitted patients on emergency ward of a university general hospital in Sari because of deliberate self-poisoning. The general hospital receives all hospital referred cases from Sari city and the surrounding area. Patients referred to the hospital following self-poisoning identified by the emergency ward doctor. Fifty controls were who did not have any past history of DSH. They were selected from those who had been admitted for other reasons to the same ward and were referred by the emergency ward doctor. Two groups were matched for age, sex, education, marital and socioeconomic state. All patients referred to the research group in the hospital and received a detailed psychosocial assessment by a specially trained physician. Each assessment was discussed in detail with a senior psychiatrist. A range of patient characteristics and clinical items were recorded by the assessor on data sheets. Through the Accident and Emergency Department (A and E) record system and scrutiny of case files a limited amount of information was also available.

Definitions: Deliberate self-poisoning is defined as the intentional self-administration of any poisons, non-ingestible substances or more than the prescribed dose of any drug, provided the hospital staff consider that these are cases of suicidal attempt by deliberate self-harm.

Clinical variables: After the patients were detoxified and stabilized, informed consent was given and the patients were interviewed by a trained general practitioner in the emergency ward. For each patient in both groups, we used three types of questionnaires. In the first one we listed the possible risk factors of suicide and problems, both psychosocial and with regard to physical health (based on previous studies in that area) along with demographic data including age, sex, education, marital and socioeconomic state. A problem or risk factor was defined as "a factor which was causing current distress for the patient and/or contributed to the act". We did not match psychiatric and physical disorders in two groups. Just we asked the patients and studied their medical records about the history of such disorders. Socioeconomic status was assessed using the method of unsatisfied basic needs, which measures family access to a series of basic services such as sanitation, education and housing, as well as economic dependency.

The second assessment tool was Beck's Scale for Suicidal Ideation (SSI) (Beck *et al*., 1979). The SSI is designed to be administered by a clinician and contains 21 items scored on a 3-point Likert scale from 0 = not present to 2 = maximum severity of suicidal ideation. The severity of suicidal ideation is calculated by summing the ratings for the first 19 items. The range of scores is 0-38. There is no dichotomous cutoff scores defining high risk, but increasing scores reflect increasing suicidal ideation and risk. Internal consistency coefficient (Cronbach's alpha) for the SSI was 0.89 and interrater reliability was 0.83 ($p<0.001$). In their study on validity, Beck *et al.* (1979) compared inpatients hospitalizes for suicidal ideation (n = 90) and outpatients seeking treatment for depression (n = 50) using the SSI. Inpatients (mean = 9.43, SD = 8.44) had significantly higher ideation scores than outpatients (mean = 4.42, SD = 5.77, t = 4.14).

The third questionnaire was the scale of religious activities (Golzari, 2001). This scale which has been designed for the measurement of practicality in religious beliefs, comprises 25 instances which have to be acted upon in 4 fields: Practicing religious obligations; recommended deeds, religious activities (membership in religious groups etc.) and considering religion in making every decision or choosing ways of living. All the questions have been set to ask about common deeds practiced by the pious youth committed to Islam. Each question has 5 choices to grade from 0 to 4: In other words, 0 is the least and 4 is most mark in the questions. The total mark is 100, which indicates that a person does all his/her religious duties and 0 means that he/she does none of the religious deeds. Internal consistency coefficient (Cronbach's alpha) for this scale was 0.94 and test-retest reliability was 0.76. Reliability with split method has been estimated 0.91. The test had both formal and logical high validity which was related to its criterion by comparing religious persons with non-religious ones, with validity coefficient 0.76-0.84 and factor validity with regard to researches done in this respect, $p<0.001$.

Each interview was spent about 1 h. This study was approved by ethical committee of researches in Mazandaran university of medical sciences.

Statistical analysis: The data were analyzed with the SPSS statistical package (SPSS, 15) using $\times 2$: Spearman rank correlation, Mann-Whitney and t-tests as indicated. Logistic regression was used to estimate the association between dependent variable (deliberate self poisoning) and covariates (all the risk factors and protective factors including religious practice).

RESULTS AND DISCUSSION

Sixty four percent of cases were female and 36% men with an age range of between 16-77 years (mean = 24.64,

Table 1: Relationship between covariates and deliberate self-poisoning

Covariates		Case N(%)	Control N(%)	$\chi 2$	df	p
Age	<20	16(32)	22(44)	4.989	2	0.083
	20-23	15(30)	19(38)			
	>23	19(38)	9(18)			
Sex	Male	32(46)	32(64)	0.000	1	1.000
	Female	18(36)	18(36)			
Marital state	Married	20	30	4	1	0.042
	Single	30	20			
Education	Not educated /Primary	18(36)	27(54)	7.680	2	0.021
	Basic education	16(32)	18(36)			
	Higher education	16(32)	5(10)			
Socioeconomic state	Poor	15(30)	17(34)	2.466	3	0.482
	Low medium	13(26)	18(36)			
	High medium	13(26)	10(20)			
	Good	9(18)	5(10)			
Medical disease	Yes	10(20)	10(20)	0.233	1	0.629
	No	12(24)	12(24)			
Psychiatric disorder	Yes	10	8	0.271	1	0.603
	No	40	42			
Relatives' suicide	Yes	5(10)	6(12)	0.102	1	0.749
	no	45(90)	44(88)			

Table 2: Principal motives for deliberate self harm

Problem	n (%)
Marital Conflict	15 (30)
Love affair	9 (18)
Conflict with father	9 (18)
Illness	8 (16)
Family problems	6 (12)
Economic problems	6 (12)
Unemployment	6 (12)
Conflict with mother	5 (10)
Addiction	3 (6)
Military draft	3 (6)
Failure in academic achievement	2 (4)
Rape	1 (2)
Death of a child	1 (2)
Death of a brother	1 (2)
Roommate problems	1 (2)

Table 3: Scores of Beck's Scale for Suicidal Ideation (SSI) in cases

	Male		Female			
SSI	M	SD	M	SD	T	p
	24	6.45	21.18	5.81	1.24	NS*

*Not significant

median = 24, mode = 24). Eighty percent of the cases aged between 15-25 years old. Twenty three (46%) of cases were married (69% of females and 6% of males). Eighty four percent of them were from urban and 16% from rural areas.

At baseline a number of factors were different between two groups (Table 1). Remember that these two groups were matched for age, sex, education, marital and socioeconomic state.

Reasons for deliberate self harm are seen in Table 2. The most common reason for suicide was marital conflict. Mean for severity of suicidal intent in cases was 22±6.5 (Range 6-34). There was no significant difference between two sexes (Table 3). Mean for the religious practice was the same in two sexes both in cases and controls (Table 4), but it was greater in the control group than cases (Table 5).

In the case group, there was a statistically significant association between the degree of suicidal intent and religious practice score (Pearson correlation = 0.29, $p<0.041$).

Odds ratio for deliberate self-poisoning according to some demographic variables and religious practice demonstrated that deliberate self-poisoning was associated with marriage (p = 0.049, OR = 4.009, 95% confidence interval 0.053-15.262), younger age than 20 years (p = 0.000, OR = 13.7, 95% confidence interval 3.185 to 58.986) and lower religious practice (p = 0.000, OR = 0.9, 95% confidence interval 0.836 to 0.939).

Women are 1.5-4 times more likely to attempt suicide than men in different parts of the world (Kerkhof, 1998; Gelder *et al*., 2001; Sudak, 2005). However, in recent years, the proportion of men presenting to A and E following deliberate self-harm has risen and almost as many men as women now attend hospital following an episode of deliberate self-harm (Gelder *et al*., 2001). Women are more inclined to choose less painful and less lethal methods of harming themselves (Sudak, 2005).

In this study, women attempted to suicide 1.8 times more than men. Other researchers have reported similar figures of 1.5-1.9 in different parts of Iran (Zarghami and Khalilian, 2003-04; Hasanzaded and Rajali, 1998;

Table 4: Comparison of the scores of religious practice in two sexes

	Male Mean±SD	Female Mean±SD	Total Mean±SD	T	p
Case	46.38±17.95	55.12±16.8	53.44±12.84	1.7	NS*
Control	69.22±11.79	67.65±15.01	68.22±17.03	0.42	NS*

*Not significant

Table 5: Comparison of the scores of religious practice in two groups

	Case Mean±SD	Control Mean±SD	T	p
Male	46.381±7.95	69.221±1.79	4.14	0.001
Female	55.121±6.80	67.65±15.01	5.24	0.001
Total	53.441±2.84	68.22±17.03	4.53	0.001

Yasami *et al*., 1998; Anonymous, 1999). The differences in numbers in various studies appear to be due to younger age of Iranian sample population, differences in social environment and different attitudes toward suicide in Iranian younger generation.

In our study, most of the cases had moderate socioeconomic status. But in western countries, this phenomenon is more common in lower socioeconomic class.

DSH is more common in younger population and 50% of those who attempts DSH are below 30 in western countries (Roy, 2000). In Iran, the age of successful suicide is younger than what researchers see in western countries (Yasami *et al*., 1998; Afghah and Aghahasani, 1996; Ahmadi and Haji, 2000; Abrishami and Malekpour, 1998). Our study reveals that, 84% of the cases were in this age group (< 30) and deliberate self-poisoning was significantly associated with younger age than 20 years, which is similar to what other Iranian researchers reported (Zarghami and Khalilian, 2003-04; Yasami *et al*., 1998; Anonymous, 1999; Afghah and Aghahasani, 1996; Zarghami and Khalilian, 2002; Moghaddam Nia, 1999; Heydari, 1997).

Marriage before the age of 20 and single life in young ages, have been considered as risk factors for suicidal attempt (Heydari, 1997; Bancroft *et al*., 1977). In our study, deliberate self-poisoning was associated with marriage. If we compare our data with the data supplied by the Office of Population Censuses and Surveys, we can conclude that the rate of married males was less than general population but in females was more. So, in females, marriage and in males, single life can be considered as risk factor for suicidal attempt.

People who injure themselves deliberately, had endured stressful life events four times more than general population during six months before deliberate self injury all over the world (Heydari, 1997; Wiliams and Tansella, 1987; Paykel *et al*., 1975). There are various life events contributing to DSH, but recent marital conflicts are much more common than the others (Bancroft *et al*., 1976).

Iranian studies confirm this finding too (Zarghami and Khalilian, 2003-04; Hasanzaded and Rajali, 1998; Yasami *et al*., 1998; Anonymous, 1999; Zarghami and Khalilian, 2002; Heydari, 1997; Seghat Al-Eslam, 1989; Ronaghi, 1999; Pourmand and Davidial, 2000). Our study revealed that more than half of the married cases suffered from marital conflict. This was more common in females. This finding was the same as other studies in different parts of the world (Roy, 2000; Khan *et al*., 1996; Holding *et al*., 1997; Bronisch and Hecht, 1987; Domino *et al*., 1982; Harrington and Dyer, 1993; Heikkinen *et al*., 1992).

Various studies have shown that strong religious beliefs have protective effects against suicide (Kerkhof, 1998; Kennedy and Kreitman, 1973). Researchers in this country have showed that most of Iranians look at the religion as a shelter in difficult situations, which has been more prominent in females than males (Soolati and Najafi, 2000). In different Iranian studies, most of those who attempted to harm themselves said that they had religious beliefs (Zarghami and Khalilian, 2003-04; Afghah and Aghahasani, 1996). But in the current political climate in Iran which is in favor of religious beliefs, these statements can not be taken seriously and therefore are open to bias. On the other hand, religion has multiple dimensions. One of the most objective dimensions of religion is acting according to religious beliefs or religious practice.

In this study, we found positive correlation between the extent of acting according to religious beliefs and degree of suicidal intent in the cases who had attempted suicide (Pearson correlation = 0.29, $p<0.041$). It seems that cases, who were dominantly women, used religious mechanisms to cope with various stressors. The more severe the suicidal intent, the more was the extent of religious practices, which we feel can be described as a coping mechanism.

However, when the 2 groups were compared, it became obvious that employment of religious coping mechanisms occurred significantly less in cases than in controls ($p = 0.000$, OR = 0.866, 95% CI = 0.836 to 0.939). In other words, the most important result in this study is that the odds ratio for deliberate self poisoning decreased 11% for 1 unit increase in religious practice. This finding supports strongly the protective effect of religious practice against suicide.

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