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PROTECTIVE FACTORS AND FREQUENCY OF SUICIDAL IDEATIONS IN HOSPITALIZED DEPRESSED PATIENTS AT BMCH/BIPBS HOSPITAL BALOCHISTAN: A CROSS SECTIONAL STUDY

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ABSTRACT

Introduction: Suicide is a worldwide health concern. According to World health organization (WHO), over eight lacks or more then people die by suicide every year. Suicide is among the ten leading causes of death and the second most common cause of death in young people. **Objective:** To determine the frequency and protective factors of suicidal ideations in hospitalized depressed patients. **Study Design & Place of study:** This Cross sectional study was conducted at Bolan Medical Complex Hospital/BIPBS, Quetta, Patients aged from 18 to 65 of male and female gender admitted in indoor patients ward due to depression were enrolled by using non probability consecutive sampling technique. **Methods:** The present study was conducted form 01st August 2020 to 31st August 2021 after approval of hospital ethical committee and using suicidal ideation performa. **Results:** In this study total two hundred thirty patients were included with mean age of 34.6±13.4 years. Mean suicidal ideation score was 21.1±9.3. There were 48.7% males and 51.3% female patients. Suicidal ideation was present in 22.6% patients. Most common protective factor was religious and moral objections in 37.4% patients followed by fear of social disapproval in 17.4%, hopefulness and fear of suicide in 15.7% each and responsibility towards family was present in 13.9% patients. **Conclusions:** While addressing suicidal ideation and suicide prevention, clinicians should first consider the management of depressive symptomatology and the improvement of coping strategies. Suicidal ideation is quite common in patients suffering from depression and religious and moral objections are most common protective factors.

KEYWORDS: Protective factors, Suicide, Depression.

INTRODUCTION

Suicide is a worldwide health concern. According to World health organization (WHO), over 800 000 people die by suicide every year.[1]

Suicide is among the ten leading causes of death and the secondmost common cause of death in young people.[2]

The vast majority of the world's population is affiliated with a religious belief system, and almost every belief system is strongly opposed to suicide. Proposed mechanisms for this protective effect include enhanced social network and social integration, the degree of religious commitment, and the degree to which a particular religion disapproves of suicide. The clinician who understands the patient's belief system is better prepared to address religious/spiritual matters, as appropriate, in crisis situations and is also better prepared to request consultation with religious professionals when indicated.[3] The influence of life events on suicidal behavior remains inconclusive, while reasons for living may be protective. The negative life events associated with suicidal ideations were health related events. Family- related positive life events and reasons for living were negatively associated with suicidal ideations. So, clinicians should pay more attention to somatic problems in patients at risk of suicide. In addition, family support, positive psychology and therapies that strength reasons for living should be developed to prevent suicide.[4]

Fewer studies have examined reasons for living and hope as protective factors against suicide in a clinical population. It is unclear if these factors help to reduce suicide rates in patients with depression. Results of one study revealed significant correlations among depression, hope, total reasons for living, and suicidal ideation and attempts. This study concluded that reasons for living and hope may protect against suicidal ideation and attempts in patients with depression. Especially hope could reduce the possibility of suicide attempt.[5]

Moral or religious objections have been reported to be inversely associated with suicidal behavior in depressed patients in cross sectional studies. Prospective studies have also shown a protective effect of moral or religious objections to suicide on suicidal

behavior.[6]

One of the possible ways in which religion lowers the risk of suicide is by providing moral objections to suicide. Moral objections comprise a set of beliefs. One of these beliefs is the conviction that people who commit suicide will go to hell in afterlife.[7]

In one study, Participitant's reasons for not executing suicide were family members and friends support, receiving treatment, finding a way to shift their attention, fear of increasing pressure on their children, religious beliefs, and not knowing how to execute suicide.[8] In a study conducted in South Korea, the prevalence rates of suicidal ideation in depression were 18.3 %.[9]

In our study purpose is to assess frequency of suicidal ideations among clinically depressed patients and to study the protective factors which are an important buffer to suicidal ideations and emphasize these factors hence preventing clinically depressed individuals from suicidal attempts.

METHODOLOGY

Suicidal ideation: Suicidal ideation, also known as suicidal thoughts is thinking about or an unusual preoccupation with suicide. Those who scored > 8 on "scale for suicidal ideation" were taken "depression with suicidal ideations".

Suicide: an act with a fatal outcome deliberately initiated and performed in the knowledge or expectation of its fatal outcome.

Depression: diagnosed cases of depression according to international classification of Diseases (ICD-10).

Protective factors: the following protective factors identified through literature were included i.e.

- Religious and moral objections: Almost every religion opposessuicide and morally it is considered a stigma in the society.
- Responsibility towards family: Some people think that their familydepends on them.
- Hopefulness: People think that there could be other better ways to solve the problems.
- Fear of social Disapproval: Suicide is considered a personalweakness
- Fear of suicide: Some people fears the act of committing suicide.

After approval from hospital ethical committee 384 patients were enrolled from Psychiatry department of Psychiatry, BMC/BIPBS Hospital Balochistan. Demographic data including (age, gender, marital status, residence, education, family system, employment and monthly income was recorded. Suicidal ideations scale shown in Annex A, was translated into patient's language at the time of data collection for convenience. Protective factors were identified through a questionnaire shown in Annex B. Suicidal ideations were assessed based on Scale for suicidal ideation and a score > 8 were considered significant. Protective factors were identified through, a questionnaire shown in Annexure B.

Data analysis

All the analysis was done in SPSS version 22.0. Frequency and percentage was calculated for categorical variables like gender, employment, marital status, residence, family system, education, suicidal ideation and protective factors whereas for continuous variables like age, monthly income and score of suicidal ideations mean and standard deviation were calculated. For suicidal ideation and protective factors data will be stratified for age groups, gender, residence, socioeconomic status, family system, marital status and education. Post stratification chi square test was applied and p-value ≤0.05 is taken significant

RESULTS

In our study total 230 patients were enrolled with mean age of 34.6 ± 13.4 years. Mean suicidal ideation score was 21.1 ± 9.3. Mean monthly income was 24500 ± 8000 PKR, there were 48.7% males and 51.3% female patients. Figure. 4

There were 24.3% unemployed patients, 10.4% had government job, 31.3% has private job and 33.9% were doing business. There were 28.7% single patients, 55.2% married, 10.4% divorced and 5.7% separated.

There were 57.4% patients had their own personal residence and 42.6% were living in rental accommodation. Most of patients had primary education i.e. 40%.

Most of patients were living in joint family system i.e. 53.5%. Most of patients belonged to lower class i.e. 40.9%. Suicidal ideation was present in 22.6% patients.

Most common protective factor was religious and moral objections in 37.4% patients followed by fear of social disapproval in 17.4%, hopefulness and fear of suicide in 15.7% each and responsibility towards family was present in 13.9% patients.

Data stratification for suicidal ideation and age was not significant, p-value 0.239.

Table 1: Age of sampled population, Suicidal ideation Score and Monthly income of sampled population.

	Minimum	Maximum	Mean	Std. Deviation
Age	18	65	34.60	13.436
Suicidal ideation score	7	28	21.1	9.36
Monthly income (PKR)	8000	70000	24500	8000

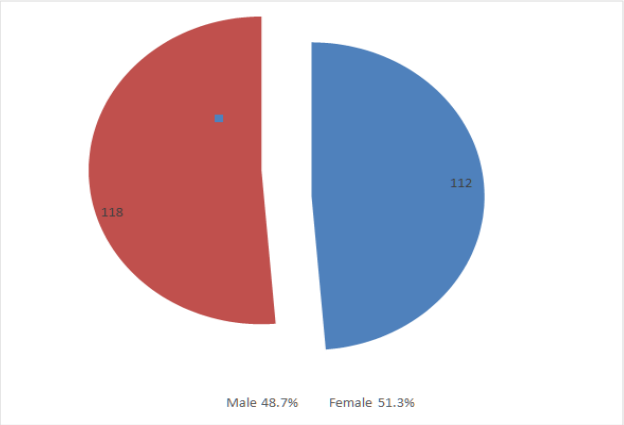

Figure 1: Frequency of gender.

Table 2: Employment status, Marital status, Educational status, Family system, socioeconomic status, Frequency of suicidal ideation, Frequency of protective factors.

		Frequency	Percent
Employment status	Unemployed	56	24.3
	Government job	24	10.4
	Private job	72	31.3
	Others	78	33.9
Marital status	Single	66	28.7
	Married	127	55.2
	Divorced	24	10.4
	Separated	13	5.7
Residential status	Personal	132	57.4
	Rented	98	42.6
Educational status	Illiterate	89	38.7
	Primary	92	40.0
	Secondary	13	5.7
	Intermediate	16	7.0
	Bachelor	12	5.2
	Masters	8	3.5
Family system	Nuclear	62	27.0
	Joint	123	53.5
	Extended	45	19.6
Socioeconomic status	Lower class	94	40.9

	Middle class	87	37.8
	High class	49	21.3
Suicidal ideation	Yes	52	22.6
	No	178	77.4
Protective factors	Fear of social disapproval	40	17.4
	Religious & moral objections	86	37.4
	Hopefulness	36	15.7
	Responsibility towards family	32	13.9
	Fear of suicide	36	15.7

Table 3: Data stratification for suicidal Ideation and Age group, Gender, Residential status, Socioeconomic status, Family system, Marital status, Marital status.

			Suicidal ideation		Total	P-Value
			Yes	No		
Age groups	18-30 years	Count	24	97	121	0.289
		% within Age groups	19.8%	80.2%	100.0%	
	31-65 years	Count	28	81	109	
		% within Age groups	25.7%	74.3%	100.0%	
Gender	Male	Count	24	88	112	0.677
		% within Gender	21.4%	78.6%	100.0%	
	Female	Count	28	90	118	
		% within Gender	23.7%	76.3%	100.0%	
Residential status	Personal	Count	24	108	132	0.062
		% within Residential status	18.2%	81.8%	100.0%	
	Rented	Count	28	70	98	
		% within Residential status	28.6%	71.4%	100.0%	
Socioeconomic status	Lower class	Count	32	62	94	0.002
		% within Socioeconomic status	34.0%	66.0%	100.0%	
	Middle class	Count	12	75	87	
		% within Socioeconomic status	13.8%	86.2%	100.0%	
	High class	Count	8	41	49	
Family system	Nuclear	Count	24	38	62	0.002
		% within Family system	38.7%	61.3%	100.0%	
	Joint	Count	20	103	123	
		% within Family system	16.3%	83.7%	100.0%	
	Extended	Count	8	37	45	
		% within Family system	17.8%	82.2%	100.0%	
Marital status	Single	Count	18	48	66	0.001
		% within Marital status	27.3%	72.7%	100.0%	
	Married	Count	7	120	127	
		% within Marital status	5.5%	94.5%	100.0%	
	Divorced	Count	19	5	24	

		% within Marital status	79.2%	20.8%	100.0%	
	Separated	Count	8	5	13	
		% within Marital status	61.5%	38.5%	100.0%	
Educational status	Illiterate	Count	36	53	89	0.000
		% within Educational status	40.4%	59.6%	100.0%	
	Primary	Count	4	88	92	
		% within Educational status	4.3%	95.7%	100.0%	
	Secondary	Count	0	13	13	
		% within Educational status	0.0%	100.0%	100.0%	
	Intermediate	Count	4	12	16	
		% within Educational status	25.0%	75.0%	100.0%	
	Bachelor	Count	4	8	12	
		% within Educational status	33.3%	66.7%	100.0%	
	Masters	Count	4	4	8	
		% within Educational status	50.0%	50.0%	100.0%	

Table 4: Data stratification for suicidal Ideation and Employment status.

			Suicidal ideation		Total
			Yes	No	
Employment status	Unemployed	Count	32	24	56
		% within Employment status	57.1%	42.9%	100.0%
	Government job	Count	4	20	24
		% within Employment status	16.7%	83.3%	100.0%
	Private job	Count	12	60	72
		% within Employment status	16.7%	83.3%	100.0%
	Others	Count	4	74	78
		% within Employment status	5.1%	94.9%	100.0%
p-value <0.001 significant					

Table 5: Data stratification for protective Factors and Age group.

			Protective factors					Total
			Fear of social disapproval	Religiou sandmoral objectio ns	Hopefulness	Respons ibility towards family	Fear of suicide	
Age groups	18-30 years	Count	16	41	20	20	24	121
		% within	13.2%	33.9%	16.5%	16.5%	19.8%	100.0

		Age groups						%
	31-65 years	Count	24	45	16	12	12	109
		% within Age groups	22.0%	41.3%	14.7%	11.0%	11.0%	100.0 %
p-value 0.106 not significant								

Table 6: Data stratification for protective Factors and Gender.

			Protective factors					Total
			Fear of social disapproval	Religious andmoral objectio ns	Hopefulness	Responsibility towards family	Fear of suicide	
Gender	Male	Count	12	52	20	4	24	112
		% within Gender	10.7%	46.4%	17.9%	3.6%	21.4%	100.0 %
	Female	Count	28	34	16	28	12	118
		% within Gender	23.7%	28.8%	13.6%	23.7%	10.2%	100.0 %
p-value <0.001 significant								

Table 7: Data stratification for protective Factors and Residential status.

			Protective factors					Total
			Fear of social disapproval	Religio us and moral objections	Hopefulness	Responsibility towards family	Fear of suicide	
Residential status	Personal	Count	20	60	28	16	8	132
		% within Residential status	15.2%	45.5%	21.2%	12.1%	6.1%	100.0%
	Rented	Count	20	26	8	16	28	98
		% within Residential status	20.4%	26.5%	8.2%	16.3%	28.6%	100.0%
p-value <0.001 significant								

Table 8: Data stratification for protective Factors and Socioeconomic status.

			Protective factors					Total
			Fear of social disapproval	Religious andmoral objections	Hopefulness	Responsibility towards family	Fear of suicide	
Socioeconomic status	Lower class	Count	20	26	8	20	20	94
		% within Socioeconomic status	21.3%	27.7%	8.5%	21.3%	21.3%	100.0 %

	Middle class	Count	20	35	20	12	0	87
		% within Socioeconomic status	23.0%	40.2%	23.0%	13.8%	0.0%	100.0 %
	High class	Count	0	25	8	0	16	49
		% within Socioeconomic status	0.0%	51.0%	16.3%	0.0%	32.7%	100.0 %
p-value <0.001 significant								

Table 9: Data stratification for protective Factors and Family system.

			Protective factors					Total
			Fear of social disappro val	**Religious and moral objectio ns**	**Hopefulness**	**Responsibility towards family**	**Fear of suicide**	
Family system	Nuclear	Count	4	26	8	4	20	62
		% within Family system	6.5%	41.9%	12.9%	6.5%	32.3%	100.0 %
	Joint	Count	28	51	20	8	16	123
		% within Family system	22.8%	41.5%	16.3%	6.5%	13.0%	100.0 %
	Extended	Count	8	9	8	20	0	45
		% within Family system	17.8%	20.0%	17.8%	44.4%	0.0%	100.0 %
p-value <0.001 significant								

Table 10: Data stratification for protective Factors and Marital status.

			Protective factors					Total
			Fear of social disappro val	**Religious and moral objection s**	**Hopefulness**	**Responsibility towards family**	**Fear of suicide**	
Marital status		Count	13	21	9	0	23	66
	Single	% within Marital status	19.7%	31.8%	13.6%	0.0%	34.8%	100.0 %
	Married	Count	19	58	15	31	4	127
		% within Marital status	15.0%	45.7%	11.8%	24.4%	3.1%	100.0 %
	Divorced	Count	4	3	10	1	6	24
		% within Marital status	16.7%	12.5%	41.7%	4.2%	25.0%	100.0 %
	Separated	Count	4	4	2	0	3	13
		% within Marital status	30.8%	30.8%	15.4%	0.0%	23.1%	100.0 %
p-value <0.001 significant								

Table 11: Data stratification for protective Factors and Educational status.

			Protective factors					Total
			Fear of social disapproval	Religious and moral objections	Hopefulness	Responsibility towardsfamily	Fear of suicide	
Educational status	Illiterate	Count	20	29	16	8	16	89
		%	22.5%	32.6%	18.0%	9.0%	18.0%	100.0%
	Primary	Count	12	32	12	24	12	92
		%	13.0%	34.8%	13.0%	26.1%	13.0%	100.0%
	Secondary	Count	0	9	0	0	4	13
		%	0.0%	69.2%	0.0%	0.0%	30.8%	100.0%
	Interme diate	Count	8	4	0	0	4	16
		%	50.0%	25.0%	0.0%	0.0%	25.0%	100.0%
	Bachelor	Count	0	8	4	0	0	12
		%	0.0%	66.7%	33.3%	0.0%	0.0%	100.0%
	Masters	Count	0	4	4	0	0	8
		%	0.0%	50.0%	50.0%	0.0%	0.0%	100.0%
p-value <0.001 significant								

Table 12: Data stratification for protective Factors and Employment status.

			Protective factors					Total
			Fear of social disapproval	Religious andmoral objectio ns	Hopefulness	Respon sibility toward sfamily	Fear of suicide	
Employme nt status	Unempl oyed	Count	16	0	4	8	28	56
		%	28.6%	0.0%	7.1%	14.3%	50.0%	100.0%
	Govern ment job	Count	4	4	8	0	8	24
		%	16.7%	16.7%	33.3%	0.0%	33.3%	100.0%
	Private job	Count	16	32	16	8	0	72
		%	22.2%	44.4%	22.2%	11.1%	0.0%	100.0%
	Others	Count	4	50	8	16	0	78
		%	5.1%	64.1%	10.3%	20.5%	0.0%	100.0%
p-value <0.001 significant								

DISCUSSION

Suicide is a major public health problem. More than 35 000 reported deaths are because of suicide each year. Suicide is often misclassified and underreported. Among patients aged 15 to 54 years, about 60% of planned first suicide attempts occurred within the first year of having the onset of suicidal ideation (seriously considering trying to kill oneself). About 13% ofsuicidal ideators in a year make a suicide attempt during that year. The presence of suicidal ideation significantly increases the risk of suicide attempts and eventual death by suicide.[10] To improve the effectiveness of detecting and intervening with people at high risk of suicide,

it is critical to fully understand frequency of suicidal ideation and protective factors associated with suicidal ideation. This study was conducted to fill this gap inknowledge.

In our study total 230 patients were enrolled with mean age of 34.6±13.4 years. Mean suicidal ideation score was 21.1±9.3. Mean monthly income was 24500±8000 PKR. There were 48.7% males and 51.3% female patients.There were 24.3% unemployed patients, 10.4% had government job, 31.3% has private job and 33.9% were doing business. There were 28.7% single patients, 55.2% married, 10.4% divorced and 5.7% separated. There were 57.4% patients had their own personal residence and 42.6% were living in rental accommodation. Most of patients had primary education i.e. 40%. Most of patients were living in joint family system i.e. 53.5%. Most of patients belonged to lower class i.e. 40.9%. Suicidal ideation was present in 22.6% patients. Most common protective factor was religious and moral objections in 37.4% patients followed by fear of social disapproval in 17.4%, hopefulness and fear of suicide in 15.7% each and responsibility towards family was present in 13.9%patients.

Our results were consistent with other international studies. In a study conducted in South Korea, the prevalence rates of suicidal ideation in depression were 18.3 %.[9] Similarly in USA study it was found that the prevalence of suicidal ideation was high among adults with major depression (26.3%), adults with both major depression and substance use disorder (37.7%), and adults who received mental health treatment but perceived unmet treatment need (33.5%).[10] A western study reported 24.6% prevalence of suicidal ideation in depressed patients and religious factor found t be protective factor 0.75 (0.34–1.66).[11]

A study conducted in Vietnam found that prevalence of experiences of low mood was 34.06% in SAVY I and 37.34% in SAVY II; prevalence of suicidal behaviors was 5.28% (SAVY I) and 12.21% (SAVY II). Significant risk factors were being female, an ethnic minority, illiterate, or exposed to violence; perceiving study load as too heavy; following a religion other thanBuddhism; or living in wealthier families. Better family cohesion protected adolescents from these unfavorable outcomes.[12]

A study conducted in New York found contrary results. Study was aimed to examine the relationship between religion and suicide attempt and ideation. 321 depressed patients were recruited from mood-disorder research studies at the New York State Psychiatric Institute. Participants were interviewed using the SCID, Columbia University Suicide History form,

Scale for Suicide Ideation, and Reasons for Living Inventory. Participants were asked about their religious affiliation, importance of religion, and religious service attendance. It was found that past suicide attempts were more common among depressed patients with a religious affiliation (OR 2.25, p=.007). Suicide ideation was greater among depressed patients who considered religion more important (Coeff. 1.18, p=.026), and those who attended services more frequently (Coeff. 1.99, p=.001).[12] This can be attributed tocomplex relationship between religion and suicide risk factors, and can vary among different patient populations.

CONCLUSION

Suicidal ideation is very common in patients with depression. Prompt protective measures should be taken to prevent them from suicidal attempt. Moreover religious and moral objections play a protective role in preventingpatients from suicide. All measures should be taken to keep patients in touchwith religion even during illness.

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