Suicidal Attempts, Suicidal Tendency and Social Support in Individuals with Depressive Disorders

EL-Sherbini A[1], Abed EL-Kader N[2], Mahgoub N [2]

[1]Department of Psychiatry, Department of Neurology & Psychiatry, EL-Minia University, El-Minia, Egypt.
[2]Department of Mental health nursing, Cairo University, Cairo, Egypt.

ABSTRACT

Background: Individuals with mood disorders are far more likely to commit suicide than those in any other psychiatric disorder. Assessing suicidal attempts in depressed patients is an essential factor for proper management. **Objective:** We tried to assess suicidal attempts in a sample of depressed patients; to measure suicidal tendency and social support in those patients and to detect possible relationship between suicidal tendency and social support. **Subjects and Methods:** One hundred individuals with depressive disorders diagnosed according to the Diagnostic and Statistical Manual Fourth Edition (DSM-IV) were subjected to a screen using the Suicidal Tendency Scale (STS) and the Perceived Social Support Scale (PSSS). **Results:** Thirty five percent of the individuals included in the study had attempted suicide during the course of their illness. More than half of those who attempted suicide (19 out of 35) did that more than one time. As the severity of depression increased suicidal attempts also increased. Male patients, divorced, those with higher scores for suicidal ideations and hostility were more likely to attempt suicide. Finally, a negative correlation was found between scores on the Suicidal Tendency Scale and the Perceived Social Support Scale. **Conclusion:** Suicide attempts are common among patients with depressive disorders and are strongly associated with the severity of depressive disorders. Good social support might decrease the chance for attempted suicide.

Key words: Suicide, Depressive disorders, Social support.

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INTRODUCTION

Depression is the fourth leading cause of disability in the world, and it is projected to be the second leading cause of disability by year 2020[1]. Depression and suicidal attempts are more common among women while death by suicide is more common in men[2]. Suicidal attempt can be defined as any self-inflicted action taken by the person and that could lead to death[3].

Statistics in the United States indicate that 5% of persons in the community have attempted suicide at least once and that more individuals die from suicide than from homicide in the year 2000[4].

Individuals with mood disorders are far more likely to commit suicide than those in any other psychiatric disorder[5]. The risk of depressive patients to commit suicide was estimated to be 30 times greater than that in

the general population[6]. The lifetime risk of a non-fatal suicide attempt among patients with major depressive disorder is estimated as high as 40%[7] and as low as 8%[8] depending on the design of the study.

Risk factors for suicide attempt have included a history of suicide attempt by the patient or suicide in the family[9-11], high severity depression[12-14], hopelessness, anger and suicidal ideation[9].

Cross-cultural comparison between Egyptian, Indian and British depressives showed that the Egyptians has a significant increase in suicidal tendency but not in actual suicide[15].

There are good evidences that social support plays an important role in mental health[8]. Individuals who are clinically depressed tend to report lower levels of social support than those who are currently not depressed[16]. Specifically, they report fewer supportive friends, less satisfaction with their relatives, lower marital satisfaction, loneliness and poorer interpersonal functioning[11, 17]. In addition, social support has been shown to affect suicidal behavior. Married men and women are less likely to complete suicide[18-19]. Similarly, depressed patients who had not attempted suicide expressed more feelings of responsibility toward family members than those who attempted suicide[20]. Divorced individuals show high rates of suicidal attempts[11, 21]. In addition, living alone, job loss and unemployment are associated with higher suicidal rates[22-24].

The aims of the current study are:-

1. To assess suicidal attempts in a sample of patients with depressive disorders.
2. To measure suicidal tendency and social support in these depressed patients
3. To detect possible relationship between suicidal tendency and social support

SUBJECTS AND METHODS

Setting:

This study was conducted at the out-patient clinic of Tahnasha Mental Health Hospital. It is a governmental hospital affiliated to the ministry of health and is the only psychiatric hospital in El-Minia governorate.

Sampling:

All patients with depressive disorders presenting to the out-patient clinic and fitting the inclusion criteria were included in the study. The target was to recruit one hundred patients with depressive disorders to participate in the study. This target was reached over a period of nine months from July 2006 to March 2007.

The inclusion criteria included those presenting with depressive disorder, both sexes, age range 20-55.

The exclusion criteria included those with organic brain disease (for example, mental handicap).

Procedures:

- -An official permission was granted from the hospital authorities to proceed with the study.
- -The purpose of the study was explained to the subjects and an informal verbal consent was taken.

All patients included in the study were subjected to the following:-

1. *A clinical interview* using the Diagnostic and Statistical Manual (DSM-IV) criteria[25] to generate relevant depressive disorders diagnoses.

2. *Data sheet* Designed by the investigators. It was used to collect patients' demographic data, personal data, and information about previous suicide, previous hospitalization and other clinically relevant data.
3. *Suicidal Tendency Scale* was used to assess suicidal tendencies of the patients[26]. The scale consists of four subscales namely; hopelessness, suicidal ideations, negative self image, and hostility. A higher score indicates higher tendency for suicide.
4. *Perceived Social Support Scale* was used to assess the extent to which families and friends fulfill an individual's needs for support[27]. It contains 20 items. A higher score indicates better levels of social support.

RESULTS

I- Depressive disorder diagnosis and previous psychiatric hospitalization in the sample

Table (1) shows different depressive diagnoses in the sample as well as number of previous psychiatric hospitalization. Because of the limited number of cases that cannot cover all the depressive disorders subtypes of the DSM-IV, patients were divided into individuals with: major depressive disorder without psychotic features, major depressive disorder with psychotic features, bipolar depression, dysthymic disorder.

II- Number of suicidal attempts in relation to diagnoses

Table (2) shows that 35% of those with depressive disorders attempted suicide during the course of their illness. More than half of those who attempted suicide (19 out of 35) did that more than once. Major depressive disorder with psychotic features was the most common diagnosis associated with suicidal attempts. This difference between groups was statistically significant (X^2= 14.9; P=0.002).

III- Suicidal attempts in relation to sociodemographic variables

Table (3) summarizes suicidal attempts in relation to sociodemographic variables. It could be seen that males attempted suicide more commonly than females and this difference was statistically significant (X^2=9.3; P=0.04). Divorced and single individuals were more likely to attempt suicide than married or widowed individuals (X^2=8; p=0.002).

IV- Mean scores of Suicidal Tendency Scale.

The Suicidal Tendency Scale gives a final collective score of all items asked. All is expressed as a mean and standard deviation, a higher score indicates a greater tendency for suicide. The mean score of the Suicidal Tendency Scale in the whole sample was 108 (SD=15.4), the mean score for patients who attempted suicide was 113 (SD=11.4) while it was 93.8 (SD=16.9) for those without suicidal attempts; the difference between the two groups was statistically significant (F=13.4; P=0.000). Subscale measuring hopelessness showed the highest score in the whole sample (mean=34.8; SD=4.3) followed by negative self image (mean=30.3; SD=3.9), suicidal ideations (mean=25.5; SD=3.8) and finally hostility (mean=17.4; SD=3.9). These differences were statistically significant (F=23.4; P=0.000). Although the mean scores for hostility was generally low when comparing individuals with suicidal attempts and those without, statistically

significant differences between the two groups emerged as regards scores for hostility as well as scores of suicidal ideations in which individuals with suicidal attempts had higher scores (tables 4A and 4B).

V- Mean scores of Suicidal Tendency Scale in relation to diagnosis

The mean scores of the suicidal tendency scale in relation to the diagnoses are given in table (5). Individuals with severe depression with psychotic features had the highest scores on the suicidal tendency scale (mean= 107.9; SD=13.8) followed by bipolar depression (mean=101; SD=5.6) and then major depression without psychotic features (mean=95.9; SD=1.2) and finally dysthymic disorder (mean=85.5; SD=13.9). The difference between groups was statistically significant (F=8.8; P=0.000).

VI- Mean scores of Perceived Social Support Scale

Individuals without suicidal attempts had a higher mean score on the Social Support Scale (mean=37.7; SD=7.9), indicating a better social support, than those with previous suicidal attempts. The difference between groups was statistically significant (F=2.5; P=0.04) (table 6).

Table 1: Depressive diagnoses and psychiatric hospitalizationin the sample

	Item	**Total N=100**	**%**
Diagnosis	Major depressive disorder without psychotic features	64	64%
	Major depressive disorder with psychotic features	22	22%
	Bipolar depression	2	2%
	Dysthymic disorder	12	12%
Number of previous psychiatric hospitalization.	none	87	87%
	one time	6	6%
	two times	2	2%
	three times or more	5	5%

Table 2: Number of suicidal attempts in relation to diagnosis

	No suicide	Suicide attempts	*One time*	*Two times*	*Three or more*
Major depressive disorder (N=64)	44 (68.7%)	20(31.3%)	*7*	*7*	*6*
Major depressive disorder with psychotic features (N=22)	8 (36.5%)	14(63.5%)	*8*	*3*	*3*
Bipolar depression (N=2)	1 (50%)	1(50%)	*1*	-	-
Dysthymic disorder (N=12)	12 (100%)	0	-	-	-
Total (N=100)	65(65%)	35(35%)	*16(16%)*	*10(10%)*	*9(9%)*
Difference between diagnoses in suicidal attempts rates Chi Sq= 14.9 P=0.002					

Table 3: Suicidal attempts in relation to sociodemographic variables

	Item	No suicide (N=65)	Suicidal attempts (N=35)
Age	• 20-30 (N=36)	20 (55.5%)	16 (45.5%)
	• 30-39 (N-28)	17 (60.7%)	11 (29.3%)
	• 40 or more (N=36)	28 (77.7%)	8 (22.3%)
Difference Chi Sq=4.2 p=0.1			
Sex	• females (N=68)	51 (75%)	17 (25%)
	• males (N=32)	14 (43.7%)	18 (56.3%)
Difference Chi Sq=9.3 p=0.002*			
Education	• illiterate (N=38)	26 (68.4%)	12 (31.6%)
	• 6 years of education (N=33)	21 (63.6%)	12 (37.4%)
	• more than 6 years of education (=29)	18 (62%)	11 (38%)
Difference Chi Sq=0.5 p=0.77			
Occupation	• employed in government (N=9)	6 (66.6%)	3 (33.3%)
	• hand craft (N=20)	8 (40%)	12 (60%)
	• unemployed (N=71)	51 (71.8%)	20 (28.2%)
Difference Chi Sq=6.9 p=0.03*			
Marital status	• married (N=65)	42 (64.6%)	23 (35.4%)
	• single (N=21)	12 (57.1%)	9 (42.9%)
	• divorced (N=2)	0	2 (100%)
	• widowed (N=12)	11 (91.6%)	1 (8.4%)
Difference Chi Sq=8 p=0.04*			
Residence	• rural (N=83)	56 (67.4%)	27 (32.6%)
	• urban (N=17)	9 (53%)	8 (47%)
Difference Chi Sq=1.3 p=0.2			
Previous hospitalization	• no previous hospitalization (N=87)	59 (67.8%)	28 (32.1%)
	• previous hospitalization (N=13)	6 (46.1%)	7 (53.8%)
Difference Chi Sq= 2.3 p=0.12			

Table 4A: Mean scores of Suicidal Tendency Subscales.

Hopelessness	Suicidal ideations	Hostility	Negative self image	Difference
Mean34.8 SD 4.3	Mean25.5 SD3.8	Mean17.8 SD3.9	Mean30.3 SD3.9	F=23.4 P=0.000*

Table 4B: Comparison between individuals with suicidal attempts and those without on Suicidal Tendency Scale

	Total sample	No suicide	Suicidal attempts			
	Mean (SD)	Mean (SD)	One time Mean (SD)	Twice Mean (SD)	Three Mean (SD)	Differ-ence
•Hope-lessness	34.8 (4.3)	33.05 (5.1)	34.6 (4.5)	36.2 (3.6)	35.6 (4.3)	F=1.9 P=0.1
•Suicidal ideation	25.5 (3.8)	18.2 (5.7)	27.1 (2.8)	28.8 (3.4)	28.2 (3.3)	**F=28 P=.000***
•Negative self image	30.3 (3.9)	29.5 (4.5)	29.7 (4.6)	31.3 (4.3)	30.9 (2.2)	F=0.6 P=0,6
•Hostility	17.8 (3.9)	13 (4.16)	18.8 (4)	20.3 (3)	19.4 (4.7)	**F=15.2 P=.000***
Total	108 (15.9)	93.8 (15.4)	110.3 (12.2)	116.6 (9.8)	112.2 (12.4)	**F=13.4 P=.000***

Table 5: Mean scores of Suicidal Tendency Scale in relation to diagnosis.

Diagnosis	**Mean+ SD**
Major depressive disorder without psychotic features	95.9+ 14.2
Major depressive disorder with psychotic features	107.9+ 13.8
Bipolar depression	101+ 5.6
Dysthymic disorder	85.9+ 13.9
Difference between groups **F=8.8 P=0.000***	

Table 6: Comparison between individuals with suicidal attempts and those without on Perceived Social Support Scale

Variable	No suicide	Suicidal attempts			
Social Support Mean (SD)	37.7 (7.9)	One time 35.8(6.1)	Two times 31.2(4.9)	Three times 34 (3.7)	Difference **F=2.5 P=0.04**

Table 7: Mean scores of Perceived Social Support Scale in relation to diagnosis.

Diagnosis	**Mean+ SD**
Major depressive disorder without psychotic features	37.5+9.5
Major depressive disorder with psychotic features	34+ 4.5
Bipolar depression	33.5+ 0.7
Dysthymic disorder	38.2+ 9.5
Difference between groups **F=2.3 P= 0.08**	

VII- Mean scores of Perceived Social Support Scale in relation to diagnosis

The mean scores of the perceived social support scale in relation to diagnoses are shown in table (7). Individuals with bipolar depression had the lowest scores on the social support scale (mean=33.5; SD=0.7) followed by severe depression with psychotic features (mean= 34; SD=4.5) and then major depression without psychotic features (mean=37.5; SD=8.5) and finally individuals with dysthymic disorder who had the highest scores (mean=38; SD=9.5). The difference between groups was not statistically significant (F=2.3; P=0.08).

VIII- Correlation between suicidal tendency and social support scales

Negative correlation was found between Perceived Social Support Scale and Suicidal Tendency Scale (r=-0.63 P=0.00) indicating that the higher the social support the lower the suicidal tendency is.

DISCUSSION

The rate of suicidal attempts in patients with depressive disorders in the current study was 35%. This high rate conforms to rates reported from other studies conducted within in-patient settings[10, 12-13, 28-29]. The setting of a study, whether in-patient or out-

patient based, is one of the most important factors that determine rates of suicide since hospitalized patients reflect the more severe forms of the depressive disorders with high rates of suicidal attempts. However, although our study was conducted in an out-patient setting reported figures are near to those reported in other studies conducted in in-patient setting. One explanation for this is that in our rural community people prefer to treat most of the psychiatric disorders including the milder forms of depressive disorders in private out-patients clinics where more confidential conditions are available. This might have affected the results of the current study since those included in the study, collected from the out-patient hospital population, and could represent the more severe spectrum of depressive disorders either with a chronic course of illness or high recurrence rates that necessitated their voluntary affiliation to a governmental mental health hospital. The reluctance of people to be managed in a governmental psychiatric hospital was also reflected on the number of previous psychiatric hospitalization where only thirteen out of thirty five patients who have attempted suicide were hospitalized.

More than half of those who have attempted suicide (19 out of 35) did that more than once. Previous suicidal attempts as a risk for subsequent suicidal attempts is one of the most consistent findings reported in different studies[9-11, 29].

In the current study, it was found that the highest rates of suicidal attempts occurred in individuals with major depression with psychotic features (63% of individuals with this diagnosis) while none of the individuals with dysthymic disorder attempted suicide and 31% of individuals with major depression without psychotic symptoms attempted suicide. This finding shows that as the severity of depressive disorders increased the rate of suicide increased indicating that the severity of depression is an important indicator for the risk of suicide. Increased suicidal risk with higher severity of depression has been reported in other studies[12-14].

Most of the studies on suicide in depression indicate that females attempt suicide more commonly than males but more males die from suicide[2, 8]. However, in the current study more males (56% of males) attempted suicide compared to females (25% of females). The difference from other studies needs further research assessing other variables associated with increased suicidal risk such as substance use (almost exclusively used by males in our community), personality disorders (particularly the presence of border line personality disorder associated with high rates of suicide attempts in female depressed patients in other studies) and other factors.

Our results show that the highest rate of suicidal attempts was reported by divorced patients followed by single patients, then married patients. Comparable findings have been reported by many studies in which single status were associated with higher suicidal risk[8, 21, 30]. In the current study the least group attempting suicide was widowed individuals. In a study on protective factors against suicide found that depressed patients who had not attempted suicide expressed more feelings of responsibility toward family members than those who attempted suicide[20]. This might be true for widowed individuals in our community.

As could be expected the mean score on the suicidal Tendency Scale was higher for

those who attempted suicide. Using different scales to assess suicidal tendencies in depressed patients, higher suicidal tendencies were found among those who attempted suicide[11,14]. Similarly, individuals with severe depressive disorders had higher scores than those with milder forms. The increased risk of suicide with increased depression severity has been reported by different studies[7, 11, 29].

As regards the subscales of Suicidal Tendency Scale, the Subscale measuring hopelessness in the sample showed that it was the most common experience reported by individuals as reflected by its highest mean score compared to other subscales. Yet, hopelessness did not differentiate individuals with suicidal attempts and those without, however subscales measuring hostility and suicidal ideations did so where individuals with suicidal attempts had statistically significant higher scores in both subscales in spite of the general tendency of a low hostility score in the whole sample. The finding that suicidal ideations and hostility are associated with suicide have been reported in previous studies[9, 12-13, 21.] Thus it appears that high levels of hopelessness alone do not predict suicide but the presence of hostility and suicidal ideation in addition do. It was hypothesized that stress-diathesis model for the expression of both suicidal behavior and completed suicide, when risk factors across domains are combined the likelihood of suicidal acts are greater. This might apply to the current findings where high scores in multiple domains are required for the expression of suicidal attempt[31].

The mean scores of the Perceived Social Support scale Showed that individuals with suicidal attempts and those with severe forms of major depressive disorders had lower scores indicating poorer social support. The finding that depressed patients have lower social support has been reported in different studies[17, 23, 32]. In addition negative correlation had been found between Suicidal Tendency Scale and the Perceived Social Support Scale which might indicate a protective effect of social support against suicide.

This study highlights the importance of early and prompt management of depressive disorders particularly those with psychotic features since the vulnerability to suicidal attempts was related to the severity of depression. The current study also demonstrates that by improving the social support individuals receive from their families a decrease in suicidal attempts can be reached. This could be achieved through family teaching and Psychotherapy.

LIMITATIONS OF THE STUDY

A larger number of individuals are needed to allow for detailed grouping of patients according to the DSM-IV classification system. Including patients from different clinical settings is also important to accurately determine the extent of the problem. Assessing other aspects of depressed patients particularly substance use and personality disorders which are important factors related to suicide in such patients.

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Address of correspondence:

EL-Sherbini A. Lecturer of Psychiatry**,** Department of Neurology & psychiatry, EL-Minia University, El-Minia, Egypt.