

Suicidal Ideation in Relation to Depression, Life Stress and Personality among College Students

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This study examined relationship of depression, life stress and personality with suicidal ideation among college students. Sample for the study consisted of 250 subjects (125 male & 125 female) drawn from different colleges of Haryana by using cluster sampling method. The objectives of the study were (a) to explore the association between suicidal ideation, depression, life stress and personality, and (b) to find out linear combination of different predictors of suicidal ideation. The participants were assessed with Scale for Suicide Ideation (SSI), Beck Depression Inventory (BDI), Eysenck Personality Questionnaire-R (EPQ-R) and Presumptive Stressful Life Events Scale (PSLES). The data were analyzed by using Pearson Product Moment method of correlation and stepwise multiple regression analysis. Results demonstrated that suicidal ideation was positively associated with depression, stressful life events and two dimensions of personality i.e. extraversion and psychoticism. Stepwise Multiple regression analysis found linear combination of three main predictors of suicidal ideation i.e. depression, extraversion, and stressful life events.

Keywords: Depression, Life Stress, Suicidal Ideation, Personality,

Suicide is the third leading cause of death among young people; however the incidence of attempted suicide is much more. It has been observed that after puberty, rate of suicide increases with age until it stabilizes in young adulthood. This increase in suicide may be associated with the onset and increase in depressive and other disorders during adolescents as compare to childhood (Shaffer, Gould, Fisher, Trautman & Moreau, 1996) as well as greater suicidal intent with age (Brent, Baugher, Bridge, Chen & Chiappetta, 1999). As compare to adult males, adolescent males complete suicide at rates approximately five time higher than rates for adolescents females (Kochanek, Murphy, Anderson & Scott, 2004). The reason for the lower rates of death in females than in males is due to less lethal preferred method of attempt for suicide.

The rate of suicide rose in the 1970's-1990's in youths between age ranges of 15

to 19 years. This increase is attributable to rising rate of depression, the increased availability of firearms and other means among adolescents (Commission on Adolescent Suicide Prevention, 2005). In India, more than one lakh persons lost their lives by committing suicide in year 2006 (National Crime Record Bureau, India). Similarly, in other Asian countries the certified suicide data confirm the general observation that suicide rates increase with age, but the recent increase in young suicides has not been paid much attention. However in some of the Asians countries, adolescent suicide rate is relatively lower. In Taiwan, for instance, there has been a decline in adolescent suicide rates from 20 per 1,00,000 in 1964 to just under 5 per 1,00,000 in 1988. The corresponding rate was even lower in Hong Kong (1.8 per 1,00,000 in 1982-1986) and in Singapore (3.3 per 1,00,000 in 1986). This could reflect a general trend towards

improvement in living conditions, or it could mean that adolescents in countries like Hong Kong and Singapore are less attracted to resorting to suicidal behaviour as a means of coping with stress (Cheng and Lee, 2000).

Although suicide was condemned in the Dharmashastras, yet, there is also a chapter on allowed suicides. But the earlier scriptures, of Manu's and Kautilya's were against suicide. These sentiments were echoed for ages in India. Even though today, attempted suicide is also a crime in India under the Indian Penal Code system. The neighbouring country of Sri Lanka has removed attempted suicide as a punishable offence. In India, even the assisting and abetting suicide is also a punishable offence.

Suicide rates in India have shown a gradually increasing trend. The rate in 2005 was 10.3 per lakh. The striking aspect of Indian data is the large variation in different parts of India in relation to attempted/committed suicide. The states and cities with rapid social change are associated with higher suicide rates, such as the states of Kerala and Tripura, and cities like Pondicherry and Bangalore. The number of suicides in country during the decade (1995–2005) has recorded an increase of 27.7 per cent. The population has increased by 20.4 per cent during the decade. The 35.3 % of suicide victims were the youths (15-29 years). There has been a slightly increase of 0.1% in suicide in the country in the year 2004 as compared to 2003 (Accidental Deaths and Suicides 2005, NCRB).

Kessler, Borges and Walters (1999) reported that rates of attempted suicide rise precipitously during adolescence. Borst, Noam and Bartok (1991) postulate that with the advent of puberty, social-cognitive changes lead to more internal than external attributions of unhappiness. This shift in attributional style leads to more self-blame in response to interpersonal stressors and in some adolescents results in suicidal

behavior. Similarly maladaptive cognitive processes frequently play an important role in suicidal behavior. Although numerous studies have demonstrated a relation between hopelessness and adolescent suicide attempts, hopelessness does not consistently predict suicidality once depression is controlled (Esposito, Johnson, Wolfsdorf & Spirito, 2003). It has been suggested that hopelessness may place adolescents at risk for suicidal behavior for only a limited period during a depressive episode (Dori & Overholser, 1999).

Depression is a long-established risk factor for suicide (Brent, Perper, Goldstein, Kolko & Allan, 1988; Driessen, Veltrup, Weer, Joh, Wetterling & Dilling, 1998; Friedman, Aronoff, Clarkin, Corn & Hurt, 1983; Kessler, Borges & Walters, 1999; McGlashan, 1986; Preuss, Schuckit, Smith, Danko & Buckman, 2002; Yen, Shea, Pagno, Sanislow & Grilo, 2003), and mood disorders are most frequently associated with suicide and suicide ideation and discussed as risk factors for the presence of suicidality (Chioqueta & Stiles, 2003; Hawton, 1987). The majority of the studies that evaluate the relation of psychiatric disorders to suicide report major depression as the most significant diagnosis related to suicide (Asnis, Friedman, Sanderson, Kaplan, Van Praag & Harkavy-Freidman, 1993; Chioqueta & Stiles 2003; Isometsa, Heikkinen, Henriksson, Aro & Marttunen, 1996; Spalletta, Troisi, Saracco, Ciani & Pasini, 1996).

Gould, Fisher, Parides, Flory and Shaffer (1996) reported that stressful life events have been associated with completed suicide in adolescence even after controlling for psychiatric symptoms. Death of a parent and early parental loss in general seem to be particular life events that increase the risk of attempted and completed suicide (Agerbo, Nordentoft & Mortensen, 2002; Overholser 2003). The types of life events that are related to suicidal behaviors vary with the

age. Younger attempters reported more family/parent conflicts, whereas older adolescents reported interpersonal stressors (Overholser, 2003). There is equivocal evidence that suicidal adolescents experience more stressful life events as compare to the nonsuicidal counterparts (Overholser, 2003). It seems that experiencing a large number of stressful life events is a nonspecific risk factor that results in negative affect which in turn leads to suicidal behavior in some adolescents. However, some stressors that precipitate suicidal behavior may be specific to various pre-existing psychiatric disturbance. That is, legal problems are more common in adolescents with disruptive behavior disorders, while interpersonal losses are more common in adolescents with substance use disorders (Gould, Greenberg, Velting & Shaffer, 2003).

The relationship between suicidal ideation and personality traits has received limited research attention (Berg, Hem, Lau, Loeb & Ekeberg, 2003). Studies have consistently indicated that neuroticism is positively related to suicidal thinking (Kerby, 2003; Lolas, Gomez & Suarez, 1991; Velting, 1999). Increased suicidal ideation has also been associated with low levels of extraversion, which reflects a low propensity to experience positive emotions (Kerby, 2003; Lolas et al., 1991). Studies have also reported that psychoticism is significantly related to suicide (Kerby, 2003). During the review of literature it is observed that the adults in their twenties appear to be at high risk for suicidal behaviours and it seems that certain personality traits may increase individual vulnerability to suicidal behaviour.

Although there have been several studies of suicidal ideation among clinical samples yet there is paucity of researches regarding suicidal behaviour in relation to depression, life stress and personality on adolescents in general in Indian context. The present study is an attempt in this direction.

Given this, the present study is aimed at (a) to explore the association between suicidal ideation and depression, life stress and personality. (b) to find out the role of depression, life stress and personality in suicidal behaviour.

Method

Sample:

The sample consists of 250 subjects (125 Male and 125 Female) studying at undergraduate level. The subjects were drawn from various colleges in Haryana using cluster sampling. The sample for the study was selected from five of the nineteen districts of Haryana state. From these districts, one college from each district was selected randomly then fifty students from each college were selected randomly for the study. The age of the selected subjects ranged from 18 to 21 years (mean 19.5 years and S.D. .52). The subjects covered lower middle to high socio-economic status. In general, the subjects were having good health and did not suffer from any serious or chronic ailment.

Tools:

Scale for Suicide Ideation (SSI) (Beck, Kovacs, Weissman, 1979): It consists of nineteen items and designed to quantify the intensity of current conscious suicidal intent by scaling various dimensions of self destruction thoughts or wishes. Each item consists of three alternative statements graded in intensity from 0 to 2. The scale has reliability (Cronbach alpha) and validity coefficients of .89 and .41, respectively.

Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock & Erbaugh, 1961): It is comprised of twenty one items. Although the inventory was designed as a clinical instrument but in practice it is frequently used to dichotomise subjects in to depressed and non depressed groups. This inventory has test-retest reliability coefficient ranging from .74 to .83 on different time intervals and positively correlated with

Hamilton Depression Rating Scale with a Pearson r of .71.

Eysenck Personality Questionnaire-R (EPQ-R) (Eysenck and Eysenck, 1980): It is internationally known measure of three broader dimensions of personality, viz extraversion, neuroticism and psychoticism. The scale answered in 'Yes' – 'No' format. The test-retest reliability coefficient is reported to range from .66 to .95 for different dimensions. Forbes (1973) found that the criterion validity index is found to range from .62 to .76 for three major dimensions (PEN).

Presumptive Stressful life Events Scale (PSLES): The scale is developed by Singh, Kaur and Kaur (1984) and consists of fifty one stressful life events. The items were chosen to represent life changes frequently experienced by individuals in the general population. The contents of the scale are similar to other existing life stress measures i.e. SRRQ- Holmes & Rahe, 1967. The test-retest reliability and content validity were found to be satisfactory.

Procedure:

The subjects were contacted personally in their respective educational institution for data collection. After getting willingness of subjects a congenial rapport was established to make them comfortable. They were provided the basic instructions for each test to make them understand how to perform. They were assured about the confidentiality of the data, so that they could complete the tests without any hesitation. The tests were administered in small groups in two sessions with a gap of about thirty minutes. During administration of the tests only the investigator and the subjects were present in the room. These tests were administered following the instructions specified in the respective test manual. The general testing conditions were satisfactory and the procedure was uniform all through. All the tests were scored as per the procedure described in respective test manual.

Results and Discussion

Since, the difference between male and female groups is not found significant on the variables. Hence all data is pooled together to find out the relationship among study variables. The correlations between measured variables are reported in Table-1. A careful inspection of the correlations reveals that suicidal ideation correlates positively with depression ($r = .37$, $p < .001$). The significant and positive correlation between these measures suggests that subjects scoring high on depression tend to have lack of ability to overcome suicidal wishes and may have plan and wishes to commit suicide. It is one of the general finding about linkage between depression and suicidal ideation. Therefore depression may be regarded as potent risk factor for suicidal ideation or suicide itself. Similar observations have been reported by a number of earlier workers (e.g. Brent et al. 1988; Cole, 1989; Yen et al. 2003). Suicidal ideation further correlates positively, though at relatively lower level with stressful life events ($r = .15$, $p < .05$). Obviously, life stress is responsible for negative role and consequently results into increased risk for attempted or completed suicides. The finding clearly points to the fact that people high on life stress tend to have higher tendency for suicidal ideation or suicidal attempts. This finding is consistent to earlier observations; e.g., Overholser (2003) and Gould et al. (2003) have opined that serious life stressors may prove non specific risk factor that result in negative affect leading to suicidal behaviour in adolescents.

Table 1 Intercorrelation matrix.

Variables	N	P	SI	D	SLE
E	-.17**	-.03	.15*	-.19**	-.09
N	-	.34**	.10	.47**	.19**
P	-	-	.16*	.25**	.03
SI	-	-	-	.37**	.15*
D	-	-	-	-	.13*

** $p < 0.01$ * $p < 0.05$

E = Extraversion, N = Neuroticism, P = Psychoticism, SI = Suicidal Ideation, D = Depression, SLE = Stressful Life Events.

The two of the three broader dimensions of personality also correlate significantly with suicidal ideation. Psychoticism, dimension of personality has yielded a correlation coefficient of .16 with suicidal ideation; it is significant at .05 probability level. Though the trait psychoticism is characterized by tough-mindedness, empirical findings have demonstrated that psychoticism has considerable degree of association with suicidal behaviour (Kirby, 2003). Extraversion dimension also reflects propensity to suicidal thinking. In the present data these two variables correlate to the degree of .15 ($p < .05$), indicating thereby the subjects scoring high on extraversion tend to be high on suicidal ideation too. In general, it is observed that extraversion holds promise in relation to risk concerning different aspects of suicidal behaviour (e.g. Brezo, Paris & Turecki, 2006). Interestingly, neuroticism did not yield significant association with suicidal ideation in the present study, though the correlation is in expected direction.

Table 2 Summary of Stepwise Regression Analysis, Dependent Variable Suicidal Ideation

Variables	R	R ²	F
Depression	.372	.139	39.90**
Extraversion	.436	.190	28.96**
Stressful Life Events	.452	.204	21.03**

** $p < 0.01$

In order to ascertain the extent to which weighted combination of depression, stress and personality account individual differences in suicidal ideation, stepwise multiple regression was also worked out. The stepwise analysis was preferred over standard one to find a subset of those independent variables which are useful in predicting the dependent variable, by eliminating those which do not contribute additional to that already predicted by the variables in the equation. The stepwise regression was conducted with parameter, p of F-to-enter = .05 and p of F-to-remove = .10. The table-2 shows the results of stepwise regression analysis for the dependent

measure suicidal ideation. Results indicated that three significant predictors of suicidal ideation emerged with an overall multiple R of .452 which is significant at .001 probability level. Depression being most potent predictor of suicidal ideation, it entered the equation at step one. The multiple R for this variable equals to .372, which suggests that depression accounts for approximately 14% of the variance ($R^2 = .139$). The F being 39.90 which is highly significant ($p < .001$). It indicates that depression is a very strong predictor of suicidal ideation in the selected sample. Personality dimension extraversion appears to be another potent predictor which took entry at step two. Multiple R increased to .436 with the entry of extraversion in the equation after depression. The F being 28.96 ($df = 2/247$) is significant at .001 probability level. It means that depression and extraversion jointly account for approximately 19% of the variance in suicidal ideation. The last variable that took entry into the regression equation is Stressful Life Events. With the entry of this variable the multiple R increased to .452, indicating that these three variables accounted 20.4% variance in suicidal ideation. The F ratio at this step equals to 21.03, the degrees of freedom being 3/246, it is significant at .001 probability level.

The results of stepwise regression analysis revealed that the linear combination of depression, extraversion and stressful life events account significant proportion of variance (i.e. 20.4%) in suicidal ideation among college students. Here, it is pertinent to note that despite significant correlation with suicidal ideation, psychoticism did not join the set of the potent contributors to suicidal ideation. It seems that psychoticism being having relatively higher association with depression it did not add much to the prediction of suicidal ideation after the entry of the depression in the regression equation. The selected personality traits may be useful marker of suicidal risk, further research needs to establish their contribution in relation

to environmental and genetic variation in different gender, age and ethnoculture groups.

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