A STUDY OF PSYCHOSOCIAL AND CLINICAL FACTORS ASSOCIATED WITH ADOLESCENT SUICIDE ATTEMPTS

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ABSTRACT

There is a good deal of research showing that suicide attempts increase markedly during adolescence. This study aims at studying the demographic and clinical variables of adolescent suicide attempters and comparing certain potential risk factors between adolescent and adult suicide attempters. It was found that adolescents in our study sample differ significantly from adults in the levels of depression, hopelessness, lethality of attempt and stressful life events. These findings are important in the practical management of adolescent suicide attempters.

Key words: Adolescents, suicide attempts, hopelessness, depression, lethality, stressful life events

Attempted suicide is not only a major risk factor for subsequent complete suicide, but also a morbid health event that results in personal suffering and economic cost (Rosen, 1976). Findings indicate that suicide attempts occur 30-100 times more frequently than completed suicide (Weisman, 1974). Suicide attempt can be considered as a symptom of active adaptation, as an indicator of the fact that one's physical or mental health or social situation is unsatisfactory (Kotila & Lonnquist, 1987). People who have attempted suicide are, however, a risk group with regard to subsequent suicide. According to various studies, 1-10% of those who have previously attempted suicide, do commit suicide later (Weisman, 1974).

Suicide attempters from a real problem patient group in the outpatient departments of general hospitals (Kotila & Lonnquist, 1987).

There is a good deal of research showing that suicidal behaviour increases markedly during adolescence (Shaffer & Fisher, 1981; Brooksband, 1985). Adolescents who attempt suicide in clinical samples seem to be a heterogenous group. It is necessary to examine the younger age groups in more detail, because their characteristics are different and the pattern of suicidal behaviour is dissimilar to that of adult population (McClure, 1994).

Potential risk factors for suicide attempts in adolescents include female gender, psychopathology especially a major depressive disorder, previous suicide attempts, hopelessness, recent stressful life events, suicide attempts by family members or friends, chronic physical illness, family violence and dysfunction and lower academic achievement (Lewinsohn et al., 1994). According to Hawton et al. (1982) precipitating events, which have led to a suicide attempt, are most often interpersonal problems between the adolescent and his parents or peers. Cohen-Sandler et al. (1982) have found out that more life events were related to suicidal behaviour with increasing age. Adolescents who attempt suicide report experiencing more stressful life events than depressed patients or general population controls (Paykel et al., 1974). These stressful life events are often outside the person's control and therefore should not be viewed as simply a consequence of psychological problems such as depression. Some types of stress may play an especially powerful role. Exit events, or
interpersonal losses, and other major negative events often precede suicide attempts (Slater & Depue, 1981). The relationship between chronic strains and adolescent suicide attempts is important because treatment for family conflict or marital discord among parents may reduce the risk of suicide among adolescents living in a stressful home environment (Adams et al., 1994).

There is clearly a need for systematic investigation of adolescent suicide attempters in order to gain information that can assist those providing clinical services for these patients. Given the potentially tragic nature of adolescent suicide attempts and the elevated risk of suicide clustering among adolescents, the identification of adolescents at risk for suicide attempts before their behaviour escalates and becomes more serious would be of obvious value. To increase our understanding of suicide and improve the management of patients who had attempted suicide, it is necessary to gain a more comprehensive understanding of suicidal attempts.

1. To study the sociodemographic and clinical variables of adolescent suicide attempters.
2. To compare certain potential risk factors between adolescent and adult suicide attempters.

MATERIAL AND METHOD

Sample: Two hundred and three consecutive cases of attempted suicide attending JIPMER general hospital casualty and outpatient services were recruited for the study, of which seventy four were adolescents and one hundred and twenty nine were adults. The patients were interviewed once their medical condition was stable. Before the interview, Brief Cognitive Rating Scale was administered to check the intactness of cognitive functions. An average of two to three sessions, each consisting of an hour was required for completing the assessment. Psychiatric diagnosis was made according to ICD-10, clinical descriptions and diagnostic guidelines.

Instruments: 1. Semistructured proforma for recording sociodemographic variables, details of suicide attempt, medical and psychiatric history.
2. Suicide Intent Scale (Beck et al.,1979).
3. Risk Rescue Rating (Weismann & Worden, 1972), for assessment of lethality.
4. Hopelessness Scale (Beck et al.,1974)
5. Montgomery Asberg Depression Rating Scale (Montgomery & Asberg,1979).
6. Presumptive Stressful Life Events Scale (Singh et al.,1983).

Statistics: Descriptive statistics for determining the frequencies and means. Comparison of groups were done using 't' test and Chi square test where ever applicable.

RESULTS

Sociodemographic data: Of the 74 adolescent patients, 37 (50%) were females and 37, males. Mean age of the sample was 17.58 (s.d. 1.26) and mean education in years was 6.08 (s.d. 4.12). Majority of them (66.2%), hailed from rural background and 42 (56.8%), belonged to nuclear families. 31 (41.9%), were from lower socioeconomic strata; 43 (58.1%), were unemployed and 65 (87.9%) single (Table 1).

| TABLE 1 | SOCIODEMOGRAPHIC DATA |
|---------|-----------------------|
| Sex     | Female 37 (50%)      |
|         | Male 37 (50%)        |
| Living arrangement | Alone 0 |
|          | Joint family 32 (43.2%) |
|         | Nuclear family 42 (55.8%) |
| Socioeconomic status | Lower 31 (41.87%) |
|          | Lower middle 22 (29.73%) |
|          | Middle 18 (24.2%) |
|          | Higher middle 1 (1.4%) |
|          | Higher 1 (1.4%) |
| Employment status | Unemployed 43 (58.1%) |
|         | Employed 25 (33.8%) |
|         | Student 6 (8.1%) |
| Location | Rural 49 (66.2%) |
|          | Urban 25 (33.8%) |
| Marital status | Single 65 (87.9%) |
|          | Married 6 (8.0%) |
|          | Separated/Divorced 3 (3.0%) |
|          | Widowed 0 |

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Family history of psychiatric disorder was present in 4 (5.4%) patients and 19 (25.7%) patients had a family history of substance abuse. Five (6.8%) patients had a family history of attempted suicide and 1 (1.4%) patient had a family history of completed suicide.

Eight (10.8%) patients had a history of serious medical disease, 24 (32.4%) had history of alcohol abuse and one (1.4%) patient had a history of psychiatric disorder. Three (4.1%) patients had attempted suicide previously and 2 (2.7%) had sought advice before attempt for the preceding distress (Table 2).

TABLE 2
PAST CLINICAL HISTORY

| H/O serious medical disorder | Absent | 66 (89.2%) |
|----------------------------|--------|------------|
| Present                    | 8 (10.8%) |
| H/O psychiatric disorder   | Absent | 73 (96.6%) |
| Present                    | 1 (1.4%) |
| H/O substance abuse        | Absent | 50 (67.6%) |
| Present                    | 24 (32.4%) |
| H/O advice sought for preceding distress | No | 72 (97.3%) |
| Yes                        | 2 (2.7%) |
| H/O past suicide attempt   | Yes    | 71 (95.9%) |
| No                         | 3 (4.1%) |

Details of suicide attempt: Clinical assessment revealed that 48 (64.86%) patients have psychiatric morbidity. Most common diagnosis was depression (37.7%) (Table 3).

TABLE 3
PSYCHIATRIC DIAGNOSIS

| Adolescents | No psychiatric disorder | 26 (35.1%) |
|-------------|-------------------------|------------|
|             | Depressive disorder     | 28 (37.7%) |
|             | Adjustment disorder      | 5 (6.8%)   |
|             | Bipolar disorder         | 1 (1.4%)   |
|             | Psychosis                | 0          |
|             | Anxiety disorder          | 1 (1.4%)   |
|             | Other neurotic disorder   | 2 (2.7%)   |
|             | Conduct disorder          | 4 (5.4%)   |
|             | Personality disorder      | 4 (5.4%)   |

Commonest method of suicide attempt was by organophosphorous poisoning. This method was used by 30 (40.4%) patients followed by yellow oleander poisoning (32.4%), prescription drugs overdosage (5.4%), other poisoning (5.5%), hanging (4.1%) and burning by 9 (12.2%) patients.

Three (4.1%) patients had attempted suicide previously. The suicide attempt was associated with alcohol use in 12 (16.2%). Majority of the adolescents, 47 (63.5%) attributed interpersonal problems as the reason for attempt. Sixteen (21.6%) claimed physical problems as the reason for attempt and 11 patients had other reasons.

Scale scores: There was a statistically significant difference in hopelessness scale score, Montgomery Asberg Depression Rating Scale score, suicide intent scale score, risk rescue rating score, Presumptive Stressful Life Events (PSLE) in one month and one year and PSLE scores in one month and one year between adolescents and adults (Table 4).

TABLE 4
SCALE SCORES

| Adolescents | Adult | 2 tail significance |
|-------------|-------|---------------------|
| Hopelessness scale | 7.86±5.11 | 5.99±6.78 | .040* |
| Depression rating scale | 21.39±12.87 | 16.20±13.81 | .009* |
| Suicide intent scale | 11.82±6.68 | 8.73±5.97 | .001* |
| Risk rescue rating | 47.58±19.65 | 38.71±19.21 | .002* |
| PSLE in one year | 6.78±1.65 | 4.32±1.60 | .000* |
| PSLE in one month | 4.37±1.35 | 3.01±1.58 | .000* |
| PSLE score in one year | 277.59±77.24 | 197.10±72.78 | .000* |
| PSLE score in one month | 202.81±76.42 | 138.7±70.94 | .000* |

* statistically significant difference

DISCUSSION

In our study sample of 74 adolescents, 37 (50%) were females and 37 males. In most of the other studies, girls outnumbered the boys in attempting suicide (Garfinkel et al., 1982). In our study, girls and boys were of equal proportions. This can be explained by the reason that JIPMER, being a tertiary referral centre, only
cases which are critical in nature are referred and it is known that lethality of suicidal attempts are more in males. Hawton et al. (1982) have reported that 20% of their study sample of adolescents who took overdoses had psychiatric disorders. In the present study 48 (64.86%) had psychiatric disorders. This is clearly against the notion that adolescent suicide attempts are less often associated with psychiatric morbidity. This issue has to be taken into consideration during assessment and management of adolescents.

Only 2.7% of the sample sought any advice or contact with any helping agency before the attempt. About 50% of the subjects had contacted helping agencies before the attempt in the sample described by Hawton et al. (1982). Educational measures aimed at modifying attitudes towards help seeking will be useful to this age group. Twenty four (32.4%) patients had a history of alcohol abuse. Psychoactive substance abuse is a major problem in adolescents especially so in those who attempt suicide which is to be directly addressed.

Practical management of adolescents who attempt suicide is a major health issue. Whether they have to be dealt with in the same way as their adult counterparts is controversial. In order to have a definite idea regarding this, one need to compare the potential risk factors between the two groups. In this study it has been found out that the degree of depression, hopelessness and suicidal intent is significantly high among adolescents. Suicidal intent is conceptualised in terms of the relative weight of the patient's wish to live and his wish to die, his psychological deterrents against yielding to suicidal wishes and the degree to which he has transformed his suicidal wishes into a concrete plan or actual act oriented to death. In this study, high intent suicide attempts are associated with increasing age among adolescents, presence of a psychiatric disorder especially depression and high scores on depression, hopelessness and lethality. Medical lethality as assessed by risk rescue rating was found to be significantly high in our adolescent sample. Scores on suicide intent have been shown to correlate with the medical seriousness of attempts in those who are aware of the dangers involved, some aspects of depression especially hopelessness and risk of eventual suicide (Hawton, 1987). Lethality scores are considered to be direct correlates of psychiatric disorder. Medical lethality of suicide attempts is a direct indicator of depression (Robbins & Alessi, 1985).

Hopelessness is defined in terms of a system of cognitive elements that share a common element of negative expectations. Hopelessness is a more sensitive indicator of suicidal intent than depression per se. The relationship between suicidal intent and depression was based on their joint attachment to a moderator variable, hopelessness (Beck et al., 1974). Affective, motivational and cognitive aspects are represented in hopelessness. Between the event and the associated depression hopelessness is believed to play an important role in the manifestation of suicidal behaviour. Thus the chain reaction with its components of depression, hopelessness and suicidal intent which leads on to suicidal attempt should be the main focus of the therapist.

Increased stress is more common in adolescent suicide attempters. They report elevated levels of major negative events and exit events in the previous year (Adams et al., 1994). The varied type of stressful life events include deaths and separations of relatives, illness, hospitalization, multiple family moves etc. Family disruptions and discord stemming from excessive arguments and overt violence, loss of relatives due to marital separation, and/or divorce, and problems in family interpersonal relations derived from parental psychiatric illness are important aspects of stressful circumstances experienced by suicidal adolescents (Pfeffer, 1996). Paykel et al. (1974) have shown that patients who attempt suicide show as much as four times an incidence of an upsetting life event, especially in the preceding one month. We have found out that the number of stressful life events the adolescent sample have faced in the
preceeding month and year is significantly higher than the adults. Moreover quantitative estimation of stress scores reveal that adolescents would have faced more stress than adults during the same period. This point to the need of early intervention following major life changes.

Categorizing the stress according to the source may be useful. Stressors from parents and friends are significantly related to depression and suicidal ideation. Majority (63.5%) of the adolescents in our study have reported interpersonal problems as the main precipitating factor for attempt. Thus when adolescents have problems in their close relationships with family and friends, they may lose important sources of social support which may in turn increase the risk of depression and suicidal behaviour. Early intervention may be necessary to protect the quality and integrity of these interpersonal relationships.

Because this research is based on a referred group of patients and not on a community sample of the general population, results will need to be replicated before they can be generalised. Not all potential risk factors were compared among the two groups in our study. Future research should examine the role of those variables that are capable of reducing the negative impacts of chronic strains, such as social supports, personality styles and coping skills. Further studies with control groups comprising non depressed non suicidal and depressed but non suicidal adolescents are necessary for confirmation of the findings. The adolescents experiencing higher rates of cumulative stressful life events will be the target population for repeated monitoring for identification of suicidal behaviour.

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