



MEDICAL JOURNAL OF WESTERN INDIA

THE OFFICIAL PUBLICATION OF RESEARCH SOCIETY OF BJMC AND SGH, PUNE

WEBSITE: www.mjwi.org

ISSN NO.: 0972-9798

EISSN No.: 0972-9798

CLINICAL

Assessments of coping skills in relation to recent life events in suicide or deliberate self-harm (DSH) attempters in a tertiary care hospital- A cross sectional study

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ARTICLE INFO

Article history:

Date of Web Publication 01 Apr 2022

Date of Receipt: 01 Apr 2022

Date of Acceptance: 23 Jan 2020

Date of Publication: 01 Jan 1970

Article No: 37

ABSTRACT

Abstract: Background: Suicide is a major public health concern in India. Impulsive suicide attempts tend to be immediately preceded by interpersonal conflicts. This maladaptive response to conflict calls for an assessment of coping styles and stress

KEYWORDS

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Manuscript Type:

Research Article

Title:

Assessments of coping skills in relation to recent life events in suicide or deliberate self-harm (DSH) attempters in a tertiary care hospital- A cross sectional study

Abstract:

Background: Suicide is a major public health concern in India. Impulsive suicide attempts tend to be immediately preceded by interpersonal conflicts. This maladaptive response to conflict calls for an assessment of coping styles and stressful life events. Hence, we undertook this study to assess coping styles and their relationship with life events. **Methods:** This is a cross-sectional study of 100 inpatients between 18-65 years of age referred to Psychiatry department of tertiary care referral hospital for suicide attempts evaluation. Columbia Suicide Severity Rating Scale(CSSRS) was used to quantify the severity of suicide attempts. COPE inventory was used to assess coping styles. Recent life events were evaluated using Presumptive Stressful Life Events Scale (PSLE).

Results: The mean age of subjects was 28.8 ± 9 years, of which 53% were males. Seventy four percent respondents consumed organophosphorus compound as the mode of suicide, while marital conflict was the commonest life event in preceding year (60%). Most of the respondents had emotion focused coping (82%), while problem focused coping was predominantly seen in the responders having higher education. **Conclusion:** Emotion focused coping style predominated among the respondents. The respondents had also experienced a higher number of life events in the preceding one year. This has implications for intervention among patients admitted in a general hospital setting for suicidal attempts. Brief interventions focusing on coping skills in these patients are needed.

Key Words - suicide, deliberate self-harm, life events, coping skills

Introduction:

Suicide and deliberate self-harm (DSH) is a major public health concern worldwide. In a nationally representative survey conducted in 2010, about 3% of the surveyed deaths in individuals aged 15 years or older were due to suicide.¹ The National Crime Records Bureau (India), reports that in 2015 the suicide rate was 10.6 per one lakh population, predominantly affecting male gender in 18-30 years age group.² It is estimated that by 2020 suicide will represent 2.4 percent global burden of disease which was 1.8% till 1998.³

Suicide is a fatal act which represent the persons wish to die while deliberate self-harm behavior are the actions to do self-harm while making no presumptions about the presence of desire for death.⁴

Every year approximately one million individuals die globally due to suicide and 10-20 million attempt it, thus profoundly affecting almost 50-120 million close relatives or associate of the suicide attempters. Asia accounts for sixty percent burden of the world suicides thus affecting sixty million people each year.⁵

Suicide attempt is currently conceptualized as the self-injurious action with a non-fatal outcome for which there is evidence, either implicit or explicit that the individual intended to kill himself or herself.⁶ The motive of doing self-harm reported by the attempters were to die, to escape, to obtain relief and to reduce tension.⁷ According to cognitive theory, suicide attempters are the results from inability to identify and solve problems when facing them.⁸

Though planned suicide attempts are associated with mental illnesses such as depression, psychosis, substance use disorders or personality disorders however, impulsive suicide attempts are tended to be preceded by interpersonal conflicts.⁹

Life changes in living conditions, work problems, and object losses act as a stressor causing physiological arousal and enhanced susceptibility for illness than normal controls.¹⁰

According to Lazarus, stress consists of three processes; primary appraisal is the process of perceiving a threat to oneself. Secondary appraisal is the process of bringing to mind a potential response to the threat and finally coping is the process of executing that response, ¹¹ they described coping as “cognitive and behavioral efforts” a person employs to manage internal and/ or external sources of psychological stress.¹² Coping strategies are not an individual trait; it is instead conceptualized as a process.¹³

Majority of the studies measuring stressful life events found that approximately ninety percent suicide attempters reported negative life events and almost thirty five percent experience stressful life events in preceding six months.¹⁴ The subsequent high suicide rates in the suicide attempters emphasized the need for identification of the life stressor events¹⁵ and the methods of coping they adapt to deal with such stressful events. Hence, this study was conducted with the

following aim.

Aim:

To assess coping styles and their relationship with life events in patients admitted with recent suicide or DSH attempts in a tertiary care referral hospital.

Materials & Method

The study was conducted on the inpatients of state government run tertiary care referral centre located in western India, after institutional ethics committee approval and valid informed consent. Patients with a recent serious suicidal attempt present to the emergency, from where they are shifted to the intensive care unit or medicine ward for medical management and then a psychiatry referral was done for evaluation.

Sample: The study sample was comprised of inpatients admitted for recent suicidal attempt. They were included as per convenient sampling method with the following criteria.

Inclusion criteria:

1. Between 18-65 years of age
2. Willing to give written informed consent
3. Medically stable to co-operate for interview for 30 minutes

Exclusion criteria:

4. Acutely ill
5. In intensive care unit

Methodology:

This was a cross- sectional study of 100 inpatients referred to Psychiatry department for evaluation for suicide attempts.

Subject's socio demographic and clinical details were recorded in the semi structured proforma. Columbia Suicide Severity Rating Scale (CSSRS) was used to quantify the severity of suicide attempts. COPE inventory was used to assess coping styles & life events were evaluated using Presumptive Stressful Life Events Scale.

Psychometric Instruments used:

Columbia Suicide Severity Rating Scale (CSSRS):

The Columbia-Suicide Severity Rating Scale (C-SSRS) - includes four main constructs to determine the domains of suicidal ideation and suicidal behavior: the severity subscale, intensity of ideation subscale, behavior subscale, and the lethality subscale. The severity subscale is rated on an ordinal scale and evaluates 1 = wish to be dead, 2 = non-specific active suicidal thoughts, 3 = suicidal thoughts with methods but no plan, 4 = suicidal intent without plan, 5 = suicidal intent with plan. The behavior subscale is rated nominally and includes actual, aborted and interrupted attempts,

preparatory behavior, and non-suicidal self-injurious behavior. 16

Brief COPE:

It is a 28 item measure of coping strategies derived from larger COPE inventory & is answered on a 4 point Likert scale ranging from (1 = I usually don't do this at all, 2 = I usually do this a little bit, 3 = I usually do this a medium amount, 4 = I usually do this a lot).¹⁷ The COPE inventory has demonstrated good discriminant and convergent validity & has good internal reliability.¹⁸ Participants were asked to indicate what they usually do when they experience a stressful event. The 14 subscales were then classified into 3 higher order subscales; Emotion-focused coping (substance use, use of emotional support, venting, positive reframing, humor, acceptance, religion, and self-blame), problem-focused coping (active coping, use of instrumental support and planning) and avoidant coping (distraction, denial, and behavioral disengagement).¹⁹

Presumptive stressful life events scale (PSLE):

This standardized scale consists of items representative of the common life events which are shown to be relevant to Indian culture. It consists of 51 items and mean stress scores are available for all items. This are further classified according to (a) whether they are personal or impersonal (not dependent on the individual's action, e.g., death of spouse, change in sleeping habits, etc.), (b) according to whether they are (1) desirable (e.g., outstanding personal achievement) (2) undesirable (e.g., marital conflict, failure in examination), and (3) ambiguous (e.g., change in working conditions, change in eating habits, etc).²⁰

Statistical analysis:

Statistical analysis was done using Statistical Package for Social Sciences (SPSS) version 23. Categorical variables were compared using chi-square test. Student t test was used to compare continuous variables.

Results:

Table 1: Sociodemographic details of subjects (n-100)

A total of 100 patients who were studied, about 64% of the patients with DSH were in the age group of 18-30 years. The mean age group was 28.2 ± 9 while the oldest subject was 59 years old [Table No. 1].

Table 2: Suicide attempt details of subjects (n-100)

Table No. 2 summarizes the Suicide attempt details of the study subjects. Majority of suicide attempts were impulsive and were committed inside the house. Commonest method used to commit suicide was by organophosphorus compound consumption (74%) followed by prescription drugs over dosage (11%). Majority of subjects (60%) attributed marital or family conflict as the reason for their attempt.

Table No. 3: Coping Subtypes using BREF COPE

Inventory

On assessing the coping strategies applied by the subjects before suicide attempt we found that majority of respondents had emotion focused coping & only 3 % had problem focused coping [Table No.3].

Table No. 4: Correlation between Education and Coping style

On correlation of coping style with the level of formal education level we found that there is positive correlation between the problems focused coping and the higher education [Table No. 4].

Table No. 5: Correlation between the life events and severity of suicide

On correlating patients for life events with suicidal attempt severity, 83% subjects had mild-moderate suicidal ideation, out of which 73% had 2-4 life events. In severe suicidal attempt category 41% had 5-6 life events in the preceding year before the suicide attempt [Table No.5].

Discussion

This study comprised sample of 100 suicide attempters out of which 53 were males and 47 were females. In most of the other studies, girls outnumbered the boys in attempting suicide.²¹ In our study, males outnumbered the females in attempting suicide. This could be due to the fact that this hospital being a tertiary referral center, only cases which are critical in nature are referred and it is known that lethality of suicidal attempts is more in males.

Studies conducted earlier in different parts of India have reported poisoning by insecticides as the commonest method followed by drug over dosage. Our results were comparable to earlier studies in terms of mode, nature, intent and lethality of suicide attempts were measured.^{22, 23} Even though World Health Organization has suggested restricting access to pesticides as a means to reduce suicide attempts, ²⁴ still its use as insecticides and its easy availability makes it the commonest mode of committing suicide.

In the present study, 16% of those who attempted suicide had drug abuse. Similar findings have been noted in earlier studies from India.^{25, 26} The crucial role alcohol plays in suicide is evident from this study. A chronic alcoholic in the course of his illness is more likely to face variety of stressors, interpersonal difficulties and weakening of social support all of which could push the person to suicide.²⁷ Hence there is an urgent need to address this issue at the individual, family and community level. Policies and programs should be initiated for reducing the alcohol availability & accessibility and at the same time there should be better availability of mental health care and followup strategies for the treatment of persons with substance abuse.

Suicide ideation and self-injurious behavior without

intent to die were reported by about 50% and 11% of respondents, respectively in present study. These prevalence rates were measured by CSSRS Risk Assessment version in psychiatric outpatients and inpatients. Subjects with history of drug abuse are presumably at variance with the findings of studies of community samples from other cultures.²⁸ In a Chinese study, Cheng et al found that 17.4% of students had seriously considered attempting suicide, and 8.1% had made a specific plan for suicide during the 12 months preceding the survey.²⁹ In another study done by Oyefeso A et al on 80 opiate addicts, the lifetime prevalence rate of self-injurious behavior was 49%.³⁰ Prevalence of suicide ideation and self-injurious behavior is highly variable, which is attributable to a variety of factors, including sample characteristics, measurement tools, and study design. The epidemiological trend of variable suicidal and self-injurious behavior in the present study might be attributed to sociocultural factors.

Accumulation of life events especially unpleasant personal events and other psychosocial stressors are commonly associated with suicidal behavior when attempters were compared to the general population and non-suicidal psychiatric patients. Osvath et al. reported recent life events in 80% of suicide attempters; job problems (28%), family discord (23%), somatic illness (22%), financial problems (18%), unemployment (16%), separation (14%), death (13%), and illness in a family member.³¹ Similar to above study, in present study, recent life events were found in 76% of attempters in the previous year; marriage conflict (38%), family conflict (17%), loss of job (16%), death of closed ones (04%), land matter (05%), love affair (04%), assault (03%) & failure in exam (02%).

Stressors from parents and partners are significantly related to depression and suicidal ideation. Maladjustment with significant family members and domestic strife has been cited as the most important causes of attempted suicide in many Indian studies.^{32, 33} Majority (60%) of the subjects in our study have reported interpersonal problems as the main precipitating event for suicidal attempt. Thus when subjects 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 behavior. Early intervention may be necessary to protect the quality and integrity of these interpersonal relationships.

Coping is defined as the process of managing taxing circumstances, making an effort to solve personal and interpersonal problems, and seeking to master, minimize, reduce or tolerate stress and conflicts.³⁴ Sound coping and problem-solving skills are important in facing day-to-day adversities. Most of the literature on coping argues that there should be a distinction between emotion-oriented coping (person-oriented coping) and task oriented coping (problem-focused coping). A third category, avoidance, can include both task- and emotion-oriented strategies (distraction avoids stressors by engaging in a substitute task, while social diversion avoids stressful situations by seeking help from others).³⁵ In general, task-oriented coping skills are

positively, and emotion-oriented coping negatively, related to good adaptation and mental health,³⁶ while emotion- or person oriented coping is a primitive form of coping strategy; a person will tend to blame him- or herself, be preoccupied with aches, worry, become tense etc.

Our study showed that subjects who attempted suicide used more emotion-focused coping and less problem and avoidance-oriented coping. In confronting stressful life events, DSH patients are more likely to use emotional discharge than task-oriented means. These findings were in concurrence to those of Kannan et al, who also found that task-oriented coping appeared to be used less among study subjects and they tended to use emotion oriented ways of coping in stressful situations.³⁷

In our study, problem focused coping skills was used by only 3% of subjects, who were graduates, while emotion focused coping was used by 65% who were educated till primary school. A statistically significant relationship was found between education & coping skills in present study (P value=0.00). Pompili M et al found that people with low educational levels were died of suicides compared to the death due to natural causes irrespective of the genders. These people with lower educational achievement were more likely to commit suicide in face of general failure and stigma.³⁸ Hence, adequate education is also a prerequisite for problem solving skills and to deal adequately with stressful situations.

Although lower education has not been directly cited as a risk factor but it certainly invites more adverse life events because of related consequences such as unemployment, poverty. It subsequently has poor social status and can also indirectly reduce the social support of vulnerable individuals. Good social support has always been cited as a protective factor against suicide.

Limitations

The main limitation of this study was the small sample size. It is a hospital based study and that the timing of assessment includes a selection bias as only those who were medically stable were included. As this study research group is based on only referred patients to the tertiary care referral hospital and not on a community sample of the general population, results will need to be replicated before they can be generalized.

Scope for further research

In the context of the present study, the following few suggestions seem to be relevant in planning for future research. Probably studies with long term follow up would throw more light on suicidal tendency in individuals with, poor coping skills and excessive life stressors. An interventional study design may provide more information on the role of improving coping styles and QOL, and exposure to better life experiences in reducing the suicidal tendency. Moreover, only qualitative individual case studies can provide in depth exploration of multitude of factors operating in this complex behavioral problem.

Conclusions

This study concludes that suicide attempters experienced significantly more life events especially untoward events are consistent with previous Indian Studies. We found that individuals who attempted DSH used emotion-oriented coping skills when faced with stressors, as opposed to task-oriented and avoidant forms of coping.

An important implication of the study is the recognition that treating DSH does not start at the point of contact with medical services. Protective factors such as religious beliefs, responsibility to family and coping strategies can be inculcated from a very young age. The complex process by which early experiences predispose to self-harm as a response to stress may be understood in terms of attachment theory.³⁹ As a form of primary prevention, educational systems should not emphasize academic achievement alone as their primary goal. The aim should be to produce an individual who is both intelligent and resilient to face adversities; school should emphasize problem-solving skills, coping strategies and moral values in curriculum. The study also highlights the importance of problem-solving and coping strategies in the treatment of DSH patients, and indicates that involving the family by means of multi-systemic therapy would be beneficial.

Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

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Acknowledgement

Conflict of Interest

No

Financial Support and Sponsorship

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