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# Assessment of Suicidal Triggers of Depression among Adulthood at Sir Cowasjee Hospital Hyderabad: A Cross Sectional Study

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## ABSTRACT

**Background:** Suicide represents a significant public health issue, resulting in extensive social, economic, and emotional effects; annually Over 800,000 people lose their lives to suicide. with 78% occurring in low- and middle-income nations. The figures surrounding suicide among adolescents are particularly alarming: in 2015, it was the second leading cause of death for people aged 15 to 29 globally (World Health Organization, 2018). **Objective:** To measure the magnitude of the suicidal triggers associated with depression among adults at Sir Cowasjee Hospital, Hyderabad. **Methodology:** A descriptive cross sectional study was conducted on 326 patients of depression at Sir Cowasjee Institute of Psychiatric Hospital, Hyderabad. Using simple random sampling. Frequencies and percentages were calculated for categorical variables, suicide crisis inventory questionnaire was transformed into scores, multiple linear regression was run to predict significant suicidal triggers of depression value less than 0.05 was considered significant. **Results:** Demographic triggers of suicidal ideation among depression patients were Illiteracy, low level of education, urban residency, marital conflicts, cheap labor, challenging own business, low monthly income are the main suicidal triggers among depressed adults. Early detection of depressive symptoms is vital in providing early treatment and prevention of suicide. **Conclusion:** Suicidal crises have been predominantly affecting the daily life activities of adolescents with depression. Early detection of depressive symptoms is vital in providing early treatment and prevention of suicide. There is a need to develop a comprehensive mental health policy to create awareness and curb this suicidal crisis among adults in order to make them productive assets to society.

## INTRODUCTION

Suicide is the major public health problem. It represents a significant public health issue, resulting in extensive social, economic, and emotional effects; more than 800,000 individuals die by suicide in each year, with 78% occurring in low- and middle-income nations. The figures surrounding suicide among adolescents are particularly alarming: in 2015, it was the second leading cause of death for people aged 15 to 29 globally (World Health Organization, 2018).[1]

The World Health Organization (WHO) estimates that one million people worldwide die by suicide each year, with a mean death rate of 16 per 100,000. This means that one person dies every 40 seconds. With one suicide death and one suicide attempt every 20 seconds, it is projected that this number will rise to 1.53 million suicide fatalities in 2020.3,4 Teenage years and early adulthood.[2]

Death via self-harm with the intention of dying is known as suicide. According to the definition, a

suicide attempt occurs when a person purposefully hurts themself in an attempt to terminate their life but is unsuccessful. Numerous factors can either raise or lower the risk of suicide. Violence and other types of harm are linked to suicide. For instance, such as those who have been victims of violence.[3]

In recent years, the rising adult suicide rates in affluent nations, especially among men, have grown Both Australia and New Zealand have seen these patterns clearly, with government figures showing that rates of young suicide have been on the rise since the 1970s.

International comparisons reveal that the suicide rates for males between the ages of 15 and 24[4]

To reduce the incidence, morbidity, and mortality linked to depression and suicide in LMICs like these, preventative initiatives can be created using the risk variables[5]

Anxiety and depression are psychological traits that are associated with self-harming behaviors in children. It has been discovered to have a high and favorable correlation with depressive symptoms[6].

Although suicidal thoughts and sadness have similarities, anxiety is also positively connected with self-harm. However, it heightens the propensity to injure oneself when it coexists with me sadness. Similarly, depression is the most significant predictor of suicide in older adults. It has been noted that stress raises the likelihood of depression.[7]

Few researchers have examined the cultural epidemiology of self-harm, despite numerous studies[8] identifying ethnic disparities in the frequency of mental diseases and suicide[9]. One prevalent mental health issue among the elderly population is depression[10].

Depression will be the primary cause of Disability Adjusted Life Years in emerging nations by 2020.[11]

According to the General Depression Scale (15 items), depression affects 22.9 percent of Pakistani seniors, meaning that one in five of those over 65 suffer from depression.[12]

## METHODOLOGY

**Study design:** Study design was descriptive cross sectional conducted at Sir Cowasjee Institute of Psychiatric Hospital Hyderabad.

**Duration of study:** The duration of study was of 6 months after approval from IRB/ERC of LUMHS University, Jamshoro, Sindh.

**Sampling technique:** Simple random sampling technique was applied to collect data that meet the inclusion criteria of my study.

**Sample size calculation:** Sample size was calculated with past study prevalence through Open Epi with prevalence of 26%

Margin of Error: 5% or 0.05
Confidence Level: 95%
The formula used by OpenEpi; an info calculator
$n = [DEFF*Np(1-p)]/ [(d^2/Z^2_{1-\alpha/2}*(N-1)+p*(1-p)]$
The calculated sample size for this study was 296 adding 10% to make or keep data valid and reliable data i.e. 296+10%=30/326
Sample Size =326.

### Inclusion Criteria

- Adults attending outpatient department aged 18- 44 years old (young adulthood age starts from 18 to 44 years).
- Neurotic clients will be eligible for data collection i.e. depression, Anxiety, phobia etc.
- Having insight will be eligible (self-Power to take decision).
- Willing to participate in the study.

### Exclusion Criteria

- Lower than 18 and higher than 44 years old.
- Psychotic disorders client i.e schizophrenia, etc.
- Absent of insight. Not oriented
- Having privacy and confidential issue.
- Not willing to participate in the study.

### Data Collection Tool

A questionnaire (suicidal crisis inventory scale version 4) was applied after getting approval from author who have applied previous in their study. Questionnaire is already pre tested and administrated in the previous study as mentioned and this scale shows high internal consistency with cronbachs alpha 0.97.[13]

**Data Analysis**

SPSS version 27.0 was used to analyze the data. Frequencies and percentages were calculated for demographic variables. Multiple linear regressions were run to measure the suicidal triggers among depression patients. Inventry for suicide crises was transformed into scores to measure the predictors of suicidal triggers among depression patients. Regression coefficients were reported value less than 0.05 was considered significant.

## RESULTS

**Figure 1**

*Magnitude of Suicidal triggers among Depression Patients*

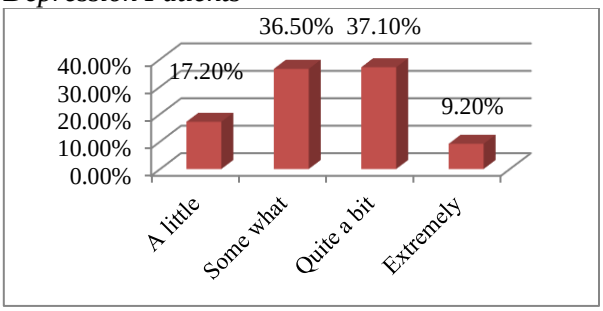


Figure.No.1: show that fifty six (17.2%) had a little suicidal ideation followed by some what one hundred nineteen (36.5%),quite a bit one hundred twenty one (37.1%),and extremely thirty (9.2%)

**Table 1**

*Regression Coefficients of Suicidal Triggers*

| Model | Unstandardized Coefficients | Standardized Coefficients | | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | T | P value |
| age of respondent | .712 | .237 | .241 | 3.011 | .003 |
| no of children | -1.155 | .823 | -.112 | -1.403 | .161 |
| **Gender** | | | | | |
| Female | 3.565 | 3.218 | .061 | 1.108 | .269 |
| **Education** | | | | | |
| No education | 2.118 | 4.016 | .035 | .527 | .598 |
| Primary pass | 11.411 | 4.829 | .148 | 2.363 | .019 |
| Middle pass | 1.063 | 4.016 | .018 | .265 | .791 |
| Matric pass | .211 | 4.016 | .004 | .052 | .958 |
| Graduation | -6.971 | 3.807 | -.125 | -1.831 | .068 |
| No education | 2.118 | 4.016 | .035 | .527 | .598 |
| Marital status | | | | | |
| Married | 7.818 | 3.114 | .138 | 2.511 | .013 |
| **Occupation** | | | | | |
| Govt job | 6.165 | 4.327 | .088 | 1.425 | .155 |
| Private job | 1.692 | 3.526 | .031 | .480 | .632 |
| Own business | 9.468 | 3.689 | .164 | 2.567 | .011 |
| Labour | 6.256 | 3.570 | .113 | 1.752 | .081 |
| **Monthly income** | | | | | |
| Less than 20k | 6.899 | 2.690 | -.152 | -2.564 | .011 |
| 41-1000K | 2.189 | 3.593 | .036 | .609 | .543 |
| More than 1000k | 5.131 | 10.043 | .083 | 1.507 | .133 |
| **Residency** | | | | | |
| Rural | 1.574 | 2.516 | .035 | .625 | .532 |

*Dependent Variable: Suicidal crises Score*

Table 1: shows significant coefficients of suicidal triggers for young age, primary education, marriage, own business, and monthly income less than twenty thousand.

## DISCUSSION

This descriptive cross sectional study has been conducted at second largest facility of psychiatry, in this study, majority of study participants were male patients, the number of male patients has been suffering more from mental health problems.

In our study, extreme triggers of suicide were fear of dying, extreme tiredness after wake up, feeling of no exit, worries about bad things to happen, another study has validated that death among adolescents has remained the second leading cause of death in this age group.[14]

In our study, female patients had more suicidal ideation and agonizing emotional pain, another study is in consistent with our findings showing hopelessness and depression being triggers of suicide in female patients. Moreover, it revealed that recent depression and worst lifetime suicidal ideation severity, cognitive control deficits predicted fatal and near-fatal suicidal behavior.[105]And studies from a low income country also reported the higher risk of suicide among I adolescent girls.[15]

On the other hand, male participants have been predicted to have more suicidal ideation, this difference of gender in our study may be due to more female patients reported at outpatient department.[16]

There may be no single trigger among all suicidal patients but various triggers are implied including psychopathology, personality traits, impulsivity, somatic illness burden, sociodemographic factors, and cognition. Triggers may be different for suicidal attempts. Evidence suggests that risk factors may be different for low and high suicide attempt. Whereas the interpersonal theory of suicide suggests that feelings of overwhelming burden is a predictor of suicide ideation and suicide attempt ,but attempt may be of low intensity during adult life, triggers are likely to change during life time,in later life cognitive functions decline,decision making is affected,consequently may trigger the suicide.[17]

In our study, patients with primary level of education had significant suicidal ideation; patients having graduation predicted less suicidal ideation.Another study has also showed the higher Race, marital status, and family economic status were important factors in the association between education levels and the lower prevalence of depression symptoms and suicidal ideation.

This finding indicates that more attention may be given to education level that may help in minimizing the suicidal ideation among adolescents.[18] Similary,another study has shown that mental health has positive association with level of education.On the other hand education declines the risk of suicide not only among normal individuals but also with psychiatric illness.[19]

In our study, suicidal ideation was higher among rural adolescents with depression, another research is consistent with our findings, rural areas are lacking mental health services, and delay in medical help would deteriorate the conditions of adolescents with depression resulting in episodes of suicidal ideation and suicidal attempt, yet, there may be regional differences in independent triggers of suicidal ideation in rural and urban areas.[20]

In our study, monthly low monthly income was significant trigger of suicidal ideation among adolescent with depression, this finding is consistent with other study showing that poverty triggers the suicidal ideation.[21]

On the other hand, higher income also predicts the suicidal ideation, suicide in adult age occurs during late life because adults are mostly remain engaged most of the time by controlling, rigid, high-aspirants, at this time they can easily adapt but facility of adequate financial stability in early life may be maladaptive and carry suicide risk in old age.[22]

In our study, most of the adolescents with depression had quite a bit and extreme level of suicidal ideation admitted in hospital. These findings are in line with another study validating those adults with depression having extreme suicidal ideation.[23]

In our study, married patients and patients with own business have shown suicidal ideations during depressed conditions as sustainability of job become difficult in staggering local economic conditions, and increasing challenges of taxes and declining profit margins may affect the mental health of adolescents. On the other hand, a local study suggests that religion and moral restrictions have been the collective factor in the prevention of suicide, furthermore, fear of social disrespect, responsibility to family, marriage, educational status, financial stability, social status have proven protective factors against suicide among adolescents with depression.[24]

Our study has been conducted in psychiatric hospitals where a great number of patients come from different rural and urban areas of Sindh province, consequently number of OPD patients is increasing day by day. Moreover, cetain studies have also supported that suicide attempts were more prevalent in depression patients admitted in hospitals compared to general population. Young age triggers the suicidal attempts at early age, may be repeated attempts with extreme suicidal ideation

limit the social interactions contributing to physical illnesses in later life.[25].

**Strengths of study**

Strength of this study is that suicidal triggers have been studied first time among adult patients who attend the outpatient department.

This study has applied probability random sampling technique that makes findings generalizable to adult population of Sindh.

**Limitations**

Uncooperative patients, family assistance was sought for some participants, study was conducted in single facility and adult patients only. There was difficulty in communicating with depressed patients as delayed responses.

## RECOMMENDATIONS

Multicenter analytic studies may be conducted in other institutes of Sindh.

Population based study may be conducted to identify the suicidal triggers, particularly at high risk areas like in Tharparkar district.

Comparative study may be conducted between public health psychiatric hospitals and private psychiatric facilities that predominantly cater middle and upper class clients so that appropriate policies may be formulated to minimize the suicidal rate.

Psychotherapy desks may be established at every medical facility in order to identify problems at initial stages.

Youths must be involved in family decisions, social responsibilities.

Screening programs should be conducted for early detection and diagnosis of suicidal ideation and depression.

## CONCLUSION

Suicidal crises have been predominantly affecting the daily life activities of adolescents with depression. Illiteracy, low level of education, urban residency, marital conflicts, cheap labor, challenging own business, low monthly income are the main suicidal triggers among depressed adults. Early detection of depressive symptoms is vital in providing early treatment and prevention of suicide.

There is need to develop comprehensive mental health policy to create awareness and curb this suicidal crisis among adults in order to make them productive assets to society.

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