

A Study to Assess Suicidal Ideation Among Secondary School going Adolescents in Selected Schools at Bharuch

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Abstract

Today, Suicide becomes a major problem in the world. Adolescence is a period in which teens have lack of maturity, they are dealing many changes and challenges during adolescence phase. Due to this; they have suicidal ideation. The aim of the study was to assess the suicidal ideation among secondary school going adolescents in selected schools at Bharuch. The quantitative descriptive approach was adopted in this study. Total five schools were selected with convenient sampling technique and in stage two simple random sampling techniques were used to select 532 students as sample in this study. Modified scale for suicidal ideation (MSSI) was used. The MSSI scale has given by Ivan w. miller, William H. Norman, Stephan B. Bishop, Michael G. Dow. Reliability of the scale was 0.94. Descriptive and inferential analysis was used. The result shows that 45.67% adolescents are having mild suicidal ideation, 10.52% adolescents are having moderate suicidal ideation and 0.93% adolescents are having severe suicidal ideation. There was significant association between suicidal ideation with age, sex, BMI, income, attendance of prayer, substance use, type of family, residence, performance of friend and school performance.

Keywords: Suicide; Suicidal ideation; Secondary school going Adolescents.

Introduction

"Just when the caterpillar thought the world was over, It became a butterfly. The moment you're ready to quit is usually the moment right before a miracle happens. Don't give up.

Suicide is an intentional act of taking one's own life. It is the major problem in the world today. It affects families, communities, and countries. Nearly 800000 people were dying due to suicide every year which is one person every 40 seconds. WHO (2016)

Suicide can be due to many reasons including depression, schizophrenia, hopelessness, alcoholism, family influence, illness, losses. Suicide has seen in all age groups including children, adult and old.

Suicide behavior has different stages such as suicidal ideation, suicide planning and attempting suicide. Ideation means that formatting ideas or concepts. Suicidal ideation is a suicidal thought, thinking and making planning of suicide. Suicidal ideation is ranging from short period of time or longer

and also includes detailed planning. Individual who is having suicidal thought does not mean that they will attempt the suicide, but it can mean that individual having the risk to attempt suicide. An estimated 2.2 million people in the U.S reported that they are having made suicide plans in 2014, among adults aged > 18. Crosby, Alex, Beth, Han (2015)

Suicide and suicidal ideation are commonly seen in school going adolescents. Adolescents is a transitional stage from childhood to adulthood and during this period adolescents experiences many changes, which include physical growth, new social relations and also emotional adjustment. These new responsibilities were put pressure & stress on them which can lead to risk of suicide.

Most common physical problems have seen in adolescents are acne, trauma, menstrual abnormalities, Iron deficiency, accidents, obesity and malnutrition. Most common mental problems are eating disorder, smoking, drug addiction, violent behavior, personality disorder, mobile addiction, alcoholism, suicide and suicide ideation.

From this all, accident is the first leading cause of death and suicide is the second leading cause of death in adolescents. WHO (13 Dec 2018)

Many factors can lead an adolescent to suicidal behavior and it can be divided in two type: 1. Psychological problems, 2. Social environmental. Psychological problems are loneliness, worry, hopelessness, anxiety, and depression. Social environmental problems are low or lack of parental or peer support, alcohol, drug use, smoking, being bullied, sexually abused, social isolation.

Adolescents of both genders who had suicide ideation are significantly more likely to commit suicide than those without such ideation and attempts. Groleger U (2003)

Now days, Mental health issues has been rise in this world since beginning. These facts are possibly considered that suicide become second leading cause of death in adolescents.

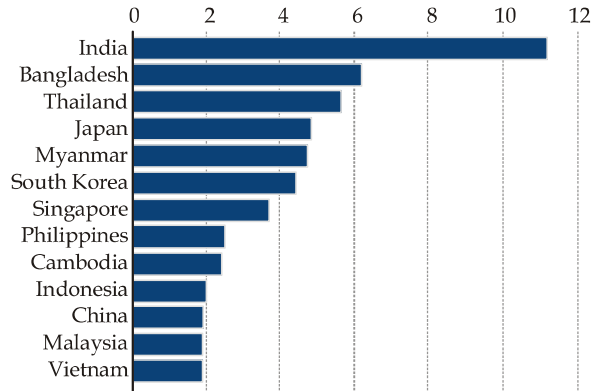
Statistical Report about Suicide

Worldwide 6.9% per 100000 population suicidal ideation recognized. Each year approximately 800,000 people die worldwide by suicide.

In Asia: 10.17% adolescents having suicidal ideation, 2017.

Table 1: Suicide rate of adolescents in Asia, 2016.

Teebage suicide rates in Asia (deaths per 100,000 in 2016)



Source: World Health Organization

In India: Annual suicide rate is 10.5 per 100,000, while the suicide rate for the world is 11.6% per 100,000. In India 2016, the number of suicides had increased to 230,314. It was the most common cause of death in all age.

In Gujarat: Gujrat recorded a 6.7% increase in the number of suicide cases in 2016-7,735 cases against 7,246 in 2015.

Table 2: Overall statistical report of suicide.

Place	Gujarat	India	Asia	Worldwide
Suicidal ideation	6.7% in 2016	11.6% in 2016	19.3 per 100,000 about 30% higher than global rate of 16.0 per 100,000 in 2016	6.9% per 100,000 population

Due to this statistic report we are focusing on suicidal ideation. The current study aims to investigate the level of suicidal ideation it will leads to increase severity of level of suicidal ideation among secondary school going adolescents.

Statement of problem

A descriptive study to assess the suicidal ideation among secondary school going adolescents in selected schools at Bharuch.

Objectives

1. To assess suicidal ideation among secondary school going adolescents in selected school at Bharuch.
2. To associate suicidal ideation with social demographical variable among secondary school going adolescents in selected school at Bharuch.

Hypothesis

H1: There is a significant association between suicidal ideation and selected demographic variables among adolescents in selected schools at Bharuch.

H0: There is no significant association between suicidal ideation and selected demographic variables among adolescents in selected schools at Bharuch.

Projected outcome

Suicidal ideation is having significant association with all selected demographic variables.

Methodology:

Research approach: In this study the quantitative approach was considered.

Research design: In this study Descriptive research design was utilized to achieve the objectives of the study.

Variables:

Research variables: In this study, research variables are refer to the suicidal ideation among secondary school going adolescent in selected school at Bharuch.

Demographic variables: In this study demographic variables which are: Age, Sex, BMI, Economical status, Attendance of religious prayer, Substance use, type of family, Residence, Performance of friends, School performance.

Setting: The setting is the location, where the study was conducted. The study was conducted at Dayadra High school, St. Xavier's school, Anjuman E Talim high school, M A M high school Sitpon at Bharuch, Gujarat.

Sample and Sample size: In this study the sample comprised of 532 adolescents were from Dayadra High school, St. Xavier's school, Anjuman E Talim high school, M.A.M high school Sitpon was selected from the 8th, 9th & 10th standard.

Sampling technique: In this study, staged sampling technique was used. Convenient sampling technique was used to select the schools from Bharuch District and the simple random sampling technique was used to identify the samples from 8th, 9th, 10th standard from each school for the present study.

Sampling criteria:

Inclusion criteria:

Adolescents who are in 8th, 9th and 10th std.

Adolescents who are willing to participate.

Exclusion criteria:

Adolescents who are absent on the day of study.

Adolescents who are diseased with mental disorders.
Adolescents who are recently bereaved.

Description of the Tool

Socio demographic data and Modified scale for suicidal ideation (MSSI) was used to identify the suicidal ideation among adolescents. This MSSI scale given by Ivan w. miller William H. Norman, Stephan B. Bishop, Michael G Dow. Reliability of the scale was 0.94.

The tool was divided into two parts

Part 1: It consist of 10 items regarding the demographic information of the subject such as age, sex, BMI, Economical status, attendance of religious prayer, substance use, Neglected by parents, Physical abuse by parents, performance of friends, school performance .

Part 2: Data was collected by means of structured interview with the use Modified scale for suicidal ideation (MSSI). It consists of 18 items in four sub dimensions measured on 0- "None", 1- "Weak", 2- "Moderate" & 4- "Severe". The possible score range from 0-72 points for the entire scale with increasing score, the person's level of ideation is on rises.

Scores are interpreted by as followed

Table 3: Level of ideation and score.

Level of ideation	Score
Mild	0-8
Moderate	9-20
Severe	21^

Procedure for data collection

The data was collected in Iqra school, Dayadra High school, St. Xavier's school, Anjuman E Talim high school, M A M high school Sitpon Prior to data collection, written permission was obtained from the principal of each school. Written informed consent was obtained from the students who were participated in this study, after explaining the purpose of this study 532 samples were selected by using simple random sampling technique. The data was collected at convenient from the participants were approached and were made comfortable. First the information was collected related to socio demographic data of the adolescents and after tool were filled up by adolescents.

Plan for data analysis

Descriptive and Inferential Statistics

Human Rights

The ethical clearance has got from Institutions.

Result

The data Analysis were done according to objectives of the study.

Data Analysis

Table 4 : Frequency & Percentage distribution of Demographic variables.

Demographic Variables	Frequency	Percentage
Age		
14yr	147	28%
15yr	206	39%
16yr	140	26.31%
17yr	39	7.33%
Sex		
Male	283	53.19%
Female	244	46%
BMI		
11-15	60	11.27%
16-20	270	51%
21-25	178	33.45%
26-30	24	4.51%
Income		
0-5000	54	10.15%
6000-10,000	226	42.48%
11,000-15,000	130	24.43%
16,000-20,000	122	23%
Attendance of religious prayer		
Regular	369	69.36%
Irregular	163	30.63%
Substance use		
Yes	39	7.33%
No	493	93%
Feeling neglected by parents		
No	330	62.03%
Yes	202	33.75%
Physical abuse by parents		
No	383	72%
Yes	149	28%
Friend performance		
Below average	26	4.88%
Average	447	84%
Above average	59	11.09%
School performance		
Below average	27	5.07%
Average	472	88.7%
Above average	33	6.20%

Demographic Variables:

The results shows in table 4 that 147(28%) of respondents were in the age group of 14yrs, 206 (39%) of respondents in the age group of 15yrs and 140(26.31%) of respondents in the age group of 16 yrs and 39 (7.33%) of respondents in the age group of

17yrs. In relation to sex , 283 (53%) of respondents were found to be male and 244(46%) of respondents were found to be female. In relation to BMI,60(11.27%) of respondents have 11-15 BMI rate, 270(51%) of respondents have 16-20 BMI rate, 178(33.45%) of respondents have 21-25 BMI rate, 24(4.51%) of respondents have 26-30 BMI rate. With respect to monthly income 54(10.15%) of respondents family income is 0-5000, 226(42.48%) of respondents family income is 6000 to 10,000, 130 (24.43%) of respondents family income is 11,000-15,000,122(23%) of respondents family income is 16,000-20,000. With respect to attendance of religious prayer, 369(69.36%) of respondents are pray regularly, 493(92.66%) of respondents are not praying regularly. Regarding substance use, 39(7.33%) of respondents are using substance, 493(92.66%) of respondents are not using any substance. With the respect of neglected by parents, 330(62.03%) of respondents said no, 202 (3.75%) of respondents said yes. With respect of physical abuse by parents, 383 (71.99) of respondents said No, 149(28%) of respondents said yes. In relation with performance of friends, 26(4.88%) of respondent’s friends performance is below average, 447 (84%) of respondent’s friends performance is average, 59(11.09%) of respondent’s friends performance is above average. In relation with school performance, 27(5.07%) of respondent’s school performance is below average, 472(88.7%) of respondent’s school performance is average, 33(6.20%) of respondent’s school performance is above average.

Table 5: Association between socio demographic variable and suicidal ideation.

Socio demo graphic variable	Mean	F	df	Chi-square Value	Table value	P<0.05
Age			9	41.76	21.67	S
14 yr	0.27	147				
15 yr	0.38	206				
16 yr	0.26	140				
17 yr	0.073	39				
Sex			3	14.402	11.34	S
Male	0.53	283				
Female	0.45	244				
BMI			9	40.87	21.67	S
11 – 15	0.11	60				
16-20	0.50	270				
21-25	0.33	178				
26-30	0.45	24				
Income			9	55.35	21.62	S
0-5000	0.10	54				
6000-10,000	0.42	226				
11,000-15,000	0.24	130				
16,000-20,000	0.22	122				

Attendance of prayer		3	37.56	16.27	S
Regular	0.69	369			
Irregular	0.30	163			
Substance use		3	104.4	16.27	S
					Table Cont.
Yes	0.07	39			
No	0.92	493			
Feeling neglected by parents		3	3.48	2.37	S
No	0.62	330			
Yes	0.37	202			
Physical abuse by parents		3	2.82	2.37	S
No	0.71	383			
Yes	0.28	149			
Performance of friend		6	15.82	15.3	S
Below average	0.048	26			
Average	0.84	447			
Above average	0.11	59			
School performance		6	13.37	12.59	S
Below average	0.05	27			
Average	0.88	472			
Above average	0.06	33			

Table 5 shows that there is association between demographic variable such as age, sex, BMI, Economical status, attendance of religious prayer, substance use, Neglected by parents, Physical abuse by parents, performance of friends, school performance with suicidal ideation among school going adolescents.

Discussion

Based on the objective and result the discussions are given below.

The first objective was to assess suicidal ideation among secondary school going adolescents.

In this study the level of suicidal ideation is more among adolescents, in this study 45.67% of adolescents are having mild suicidal ideation, and 10.52% of adolescents are having moderate suicidal ideation & 0.93% of adolescents having severe suicidal ideation. The result of the study has supported with another study done by *Tanuj Sidhartha, Shivananda Jena* done a study on **Suicidal Behaviors in Adolescents** in Delhi to find prevalence of NFSB and other related behaviors and to identify risk factors for NFSB. The total samples were 1205 adolescents in the age group from 12 to 19 years from 2 schools. The data has collected through semi structured questionnaire on demographic variables, NFSB, death wish, deliberate self-harm (DSH), Adjustment Inventory for School Students (AISS) by Sinha et al. & BDI. The results show that the Prevalence of suicidal ideation (lifetime), suicidal ideation (last year), suicide attempt (lifetime), suicide attempt (last year) were 21.7%, 11.7%, 8% and 3.5%,

respectively.

B) To associate the level of suicidal ideation with selected demographic variables.

Based on this, the result were discussed below in this study, level of suicidal ideation compared with selected demographic variable had a significant effect on Age ,45.67% of adolescents having mild suicidal ideation ,10.52% are moderate and 0.93% are severe. Due to the changes and challenges adolescents are facing during adolescence phase, they end up with the thought of suicide.

In this study, 24.62% of girl adolescents are having suicidal ideation, where 31.57% of boys adolescents are having suicidal ideation. Here boys are having more suicidal ideation than girls, it can be due to boys are less expressive compare to girls, they face difficulties in sharing their feelings to family and friends. Due to this; the mixture of emotions rises and they get suicidal thoughts. To support this finding from Canadian article "The suicide gap: Why men are more likely to kill themselves?" by Vnessa milne et al. 2017, it says that suicide is often thought of as a three times as many Canadian men kill themselves every year than women do.

Haesoo kin et al. conducted study on "Association of body mass index with suicide behaviors, perceived stress and life dissatisfaction in the Korean general population." The result of study shows that being underweight was associated with higher risk of suicide ideation, 95% likewise obesity also increased the risk of suicide ideation. In this study 35.90% of adolescents having suicidal ideation who were underweight.28.98% are having suicidal ideation with normal weight and 2.25% are having suicidal ideation that is obese.

According to Kretschmer's personality classification, Asthenic personality are unsociable, shy, pessimist in nature . Which means that adolescents who are underweight, are pessimist in nature which can be the reason behind their suicidal thoughts because they are shy and unsociable, they are not sharing their feelings and problems to others.

Adolescents whose' family income is under 5000rs having suicidal ideation 6.39%, 1.82% of adolescents having suicidal ideation whose' income is 6000-10,000rs, 15.22% of adolescents having suicidal ideation whose income is 11,000-15,000rs where adolescents whose family income is 16,000- 20,000 having 17.29% suicidal ideation. Which means that adolescents who belongs to good wealthy environment having more ideation. It can be due to; more the family is rich, they can buy everything and replace love with money due to this adolescents are feeling alone and they can't share their feelings with

everyone and end up with suicidal thoughts.

4.51% of adolescents are having moderate suicidal ideation who is performing prayer regularly, while 6.01% adolescents having moderate suicidal ideation who is performing prayer irregularly as well 0.37% are with severe ideation who are regular performer of prayer where 0.56% are irregular Which shows that adolescents who is performing prayer regularly having less ideation compare to irregular.

The reason can be the belief and spiritual hope, in life if any difficulty arise we remember our God and we have belief and hope from our god that God will solve everything if adolescents are not doing prayer that shows they are lacking spiritual belief and hope and they get suicidal thought.

6.20% of adolescents are having suicidal ideation that uses substance, where 50.93% of adolescents are having suicidal ideation that is not using any substance. It shows that adolescents who are not using any substance have more ideation.

35.33% of adolescents having ideation who felt neglected by parents, while 21.80% of adolescents having no ideation that who were got good care from the parents. Physical abuse from parents significantly associated with suicidal ideation, 16.54% of adolescents having suicidal ideation who were got physical abuse from parents. Similar study done by Tanuj Sidhartha, Shivananda Jena done a study on Suicidal Behaviors in Adolescents in Delhi to find prevalence of NFSB and other related behaviors and to identify risk factors for NFSB. The total samples were 1205 adolescents in the age group from 12 to 19 years from 2 schools. The data has collected through semi-structured questionnaire on demographic variables. The following Demographic variables such as Hindu religion, female sex, older adolescent, physical abuse by parents, feeling neglected by parents, history of running away from school, history of suicide by a friend, death wish and DSH were found to be significant risk factors for NFSB.

48.12% of adolescents are having suicidal ideation whose friend's performance is average, where 6.95%

are having ideation whose friend's performance is above average. It is showing that the adolescents whose' friends performance is average having more ideation. It reveals that adolescents who are good in study having less suicidal ideation compare to average students.

In this study all demographic variables significantly associated with suicidal ideation, so in this study the research hypothesis is accepted and null hypothesis rejected.

Recommendation

1. A further research study can be conducted for assessing the negative Impact of suicidal thoughts on physical health.
2. A similar study can be conducted on other age groups.
3. Health education given to parents and students to spread awareness regarding prevention of suicide.

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