A Study to Assess the Risk factors of Suicide Among Adolescents in Selected Colleges of Goalpara , Assam.

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ABSTRACT:

Background of the study: A study was conducted to assess the risk factors of suicide among adolescents in selected Govt / provincialized colleges of Goalpara district, Assam 1n the year 2015.

Objectives: 1.To assess the risk factors of suicide and suicidal behaviour among adolescents in Goalpara, 2. To assess the risk level of adolescents and 3. To find association between risk level and selected socio-demographic variables.

Materials and Methods: A quantitative approach with descriptive research design was used to assess the risk factors of suicide among adolescents ,where 250 samples were selected by using systematic random sampling technique. The study was conducted in two colleges of Goalpara District. Adolescents selected for the study were the students between the age group of 16-19 years and were studying higher secondary standard. Self-administered structured questionnaire was used which consisted socio-demographic data and risk factors of suicide. Ethical consent was obtained from higher education authority, college authority and subjects took part in the study.

Results: Result showed that majority of the respondents, i.e. 47.2% had economic problem, 40.05% of had academic problem, 38.96% had family problem, and 30.66% had psychological problem, 25.4% had physical problem, 21.84% had high risk behaviours (suicidal thought, attempt), 21.12% had problems in peer relation, 19.6% had family history of substance abuse, 17.7% had problems related to love affairs, 17.6% had family history of mental illness, 13.2% had problems related to socio-cultural factors and 6.4% had sexual abuse. On the basis of M±SD, 40 % had low risk, 20.4 % had moderately high risk and 39.6% had very high risk. There was significant association found between risk level and demographic variables, i.e. gender, religion, standard of education, stream of education, education and occupation of father, type of family, family history of mental illness and substance abuse and area of living.

Keywords: Risk Factors, Suicide, Suicidal Behavoiours,

INTRODUCTION:

Suicide is the act of intentionally causing one's own death[1]. There is no single cause for suicide. It is a complex public health problem of global dimension. Conditions like depression, anxiety and substance problems, especially when unaddressed, increase risk for suicide[2].

The World Health Organization has defined "adolescents" as persons who belongs to 10 to 19-year age group. Adolescence is one of the most rapid phases of human development. It is a stressful period of life with major changes including body and mind. Individual and the environment influence on the changes taking place during adolescence. Wisdom or the capacity for insight and judgment that is developed through experience within this period[3].

Suicide attempt among adolescents is a major challenge[1]. According to American Academy of Paediatrics attempted suicide among adolescent males 15 to 19 years old had a rate 6 times greater than the rate for females. The ratio of attempted suicides to completed suicides among adolescents is estimated to be 50:1 to 100:1, and the incidence of unsuccessful suicide attempts is higher among females than among males[2]. Suicide affects young people from all races and socioeconomic groups, although some groups seem to have higher rates than others[4].

Suicidal behaviours are classified into three categories: *suicide ideation*, which refers to thoughts of engaging in behaviour intended to end one's life; *suicide plan*, which refers to the formulation of a specific method through which one intends to die; and *suicide attempt,* which refers to engagement in potentially self-injurious behavior in which there is at least some intent to die[5].

Risk factors are characteristics or conditions that increase the chance that a person may try to take their life. There are numerous factors can contribute to suicide, and that ultimately each suicide is caused by a highly unique, dynamic and complex interplay of genetic, biological, psychological and social factors [6].

According to World Health Organization (WHO) report, India has the highest suicide rate in the world for the 15-to-29 age group. During the year 2012, the suicide rate was 35.5 per 100,000 in this age group. Assam witnessed around 15,000 suicides in the last five years. According to the report of National Crime Bureau of India the rate of suicide in Assam in the year 2010 was 8.7 per lakh And in the year 2012 it was 10.5. However stigma associated with suicide most cases are remain unreported[7].

Sharma Rahul, Grover Vijay L and Chaturvedi S assessed the risk factors of suicide in three schools and colleges at South Delhi found that about 15.8% reported having thought of attempting suicide, while 28 (5.1%) had

actually attempted suicide, both being more in females than in males[8].

According to Lok Sabha reply by H G Ahir, Minister of State for Home Affairs, on January 2, 2019; 9,474 students committed suicide in 2016 – almost 26 every day. Student suicides in the country have increased 52 per cent from 17 every day (6,248) in 2007 to 26 every day in 2016, data show. Around 75,000 students committed suicides in India between 2007 and 2016[9].

Causes of suicidal distress include psychological, environmental and social factors. Mental illness is the leading risk factor for suicide. Suicide risk factors vary with age, gender, ethnic group. Suicide is a complex issue. Before prevention, risk factors of suicide should be identified. Suicide prevention efforts require coordination and collaboration among multiple sectors of society, including the health sector and other sectors such as education, justice, law, defence, politics, and the media. These efforts must be comprehensive and integrated as no single approach alone can make an impact on an issue as complex as suicide. Raising community awareness and breaking down the taboo is important for countries to make progress in preventing suicide[10].

MATERIAL AND MATHODS

It was a quantitative approach with descriptive research design. Systematic random sampling technique was used to select the sample. The study was conducted in two colleges with 250 adolescents between the age group of 16-19 years and were studying higher secondary standard. Self administered structured questionnaire was used which consist of two part related to socio-demographic data and risk factors of suicide. Second part of the questionnaire consisted 42 numbers of questions related to 12 aspect of risk factors included psychological problems such as anxiety, depression, feeling hopelessness etc., family problems included communication gap among the family members, lack of support, disturbed family environment, excessive authority etc., academic problems like academic failure, unable to fulfil the expectations, economic problem, high risk behaviours included suicidal thought, suicidal plan and suicidal attempt etc. Maximum possible scores were 65. Ethical consent was obtained from ethical committee, Guwahati Medical College, higher education authority and college authority. Informed consent was taken before participation. Validity and reliability of the tools were established prior to their use. Descriptive and inferential statistics were used to accomplish the study objectives.

RESULT:

Table 1: Socio-demographic distribution of the respondents

(n=250)

Sl. No.	Personal Variables	No.	%
1.	Age in yr.-		
	16-17	93	37.2
	18-19	157	62.8
2.	Gender-		
	Male	131	52.4
	Female	119	47.6
3.	Religion-		
	Hinduism	109	43.4
	Islamism	121	48.6
	Christianism	20	8.0
4.	Educational Standard-		
	HS 1st yr.	124	49.4
	HS 2nd yr.	126	50.6
5.	Stream of education-		
	Arts	189	75.6
	Science	55	22
	Commerce	6	2.4
6.	Education of mother		
	Illiterate	21	8.4
	Primary education	88	35.2
	Middle school	58	23.2
	Matriculate	38	15.2
	HS pass	33	13.2
	Graduate	5	2.0
	Post Graduate	2	0.8
	Other	5	2.0
7.	Education of father		
	Illiterate	11	4.4
	Primary education	88	35.2
	Middle school	64	25.6
	Matriculate	33	13.2
	HS pass	31	12.4
	Graduate	13	5.2
	Post Graduate	5	2.0
	Other	5	2.0
8.	Occupation of father		
	Agriculture	115	46.0
	Business	81	32.4
	Private service	20	8.0
	Govt. service	29	11.6
	Unemployed	5	2.0
9.	Occupation of mother		
	Agriculture	37	14.8
	Business	11	4.4
	Private service	12	4.8
	Govt. service	15	6.0
	House wife	175	70.0
10.	Monthly income		
	Below Rs.5000	147	58.8
	Rs. 5001-10000	54	21.6
	Rs. 10001-15000	14	5.6
	Rs. 15001 and above	35	14.0
11.	Type of family		
	Nuclear	115	46.0
	Joint	100	40.0
	Extended	2	0.8
	Single parent	33	13.2
12.	Family history of mental illness		
	Depression	29	11.6
	Schizophrenia	6	2.4
	Mania	8	3.2

	Any other	17	6.8
	None of above	190	76.0
13.	Family history of substance abuse		
	Drug abuse	6	2.4
	Smoking	42	16.8
	Alcohol dependence	23	9.2
	Any other	4	1.6
	None of above	175	70
14.	Area of living		
	Urban	45	18.0
	Rural	105	82.0

	Combined	43.26	56.55	30.45

Socio-demographic details of the respondents: With regards to the socio-demographic variables of the adolescents, 157 (68.2%) of them belonged to 18-19 years of age, 131 (52.4%) of them were male, 121 (48.6 %) were Islamism, 126 (50.6%) were from HS 2nd year, 189 (75.6%) were from arts stream, 88 (35.2%) of the adolescent's fathers and mothers have primary education, 115 (46%) of the adolescent's fathers were working in agriculture field, 175 (70%) of the adolescent's mothers were house wife, 147 (58.8%) of them had family income of below Rs. 5000, 115 (46%) of them were living in nuclear family, 190 (76%) of the adolescents did not have family history of mental illness, 175 (70%) of them did not have family history of substance abuse and 105 (82%) were from rural area.

The findings of the table 2 shows the aspect wise mean, mean percentage and SD of risk factors of the respondents. Out of 250 subjects, in the aspect of economic problem shows the highest mean percentage, i.e. 47.2% (SD=0.04) followed by academic problem, where mean percentage 40.05% (SD=0.09), family problem, where mean percentage 38.96% (SD=0.22), psychological problem, where mean percentage 30.66% (SD=0.18), physical problem, where mean percentage 25.4% (SD=0.05), high risk behaviours, where mean percentage 21.84% (SD=0.88), negative peer relation, where mean percentage 21.12% (SD=0.07), family history of substance abuse, where mean percentage 19.6% (SD=0.03), problems related to love affairs, where mean percentage 17.70% (SD=0.06), family history of mental illness, where mean percentage 17.6% (SD=0.02), socio-cultural factors, where mean percentage 13.2% (SD=0.04), and sexual abuse shows lowest mean percentage 6.4% (SD=0.02). The combined mean percentage of risk factor was 56.55% (SD=30.45) .

On the basis of M±SD, risk level of the subjects are classified in to low risk ,moderately high and very high risk group.
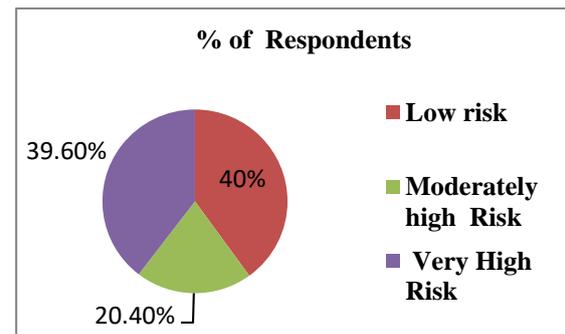
Table   2: **Aspect wise Mean, Mean percentage and standard Deviation of Risk factors scores of respondents n=250**

Sl. No.	Problem aspects	Mean	Mean%	SD
1	Psychological Problem	6.13	30.66	0.18
2	Family Problem	4.68	38.96	0.22
3	Physical Problem	1.02	25.40	0.053
4	Academic Problem	3.20	40.05	0.10
5	Negative Peer Relation	1.06	21.12	0.07
6	Economic Aspect	0.94	47.20	0.04
7	sexual Abuse	0.06	6.40	0.02
8	Problem related to Love Affairs	0.71	17.70	0.06
9	Family History of substance Abuse	0.20	19.60	0.03
10	Family History of Mental Illness	0.18	17.60	0.02
11	Socio-cultural Factors	0.40	13.20	0.04
12	High Risk Behaviours	1.10	21.84	.88

Figure 1. Distribution of respondents as per level of risk.

Figure 1 illustrates that 40% of respondents shows low risk, 20.4% shows moderately high risk (suicidal thought) and 39.6% have very high risk (suicidal attempt).

Table 3: Association between risk level of respondents and selected demographic variables

                                                   N=250

Sl. No.	Demographic variables	df	χ^2 value	P value
1	Age in years	2	3.808	0.149
2	Gender	2	8.665	0.013*
3	Religion	4	20.752	0.000*
4	Education standard	2	32.804	0.000*
5	Stream of education	4	57.362	0.000*
6	Education of mother	14	11.513	0.645
7	Education of	14	23.913	0.047*

	father				
8	Occupation of mother	8	14.549	0.069
9	Occupation of father	8	19.803	0.011*
10	Monthly income of the family	6	7.251	0.298
11	Type of family	6	19.095	0.004*
12	Family history of mental illness	8	17.462	0.026*
13	Family history of substance abuse	8	28.606	0.000*
14	Area of living	2	10.254	0.006*

* =**Significant**

There was significant association found between risk level of the adolescents and selected demographic variables. There is significant relation of risk level with gender, religion, educational standard, stream of education, education of father, occupation of father, type of family, family history of mental illness, family history of substance abuse and area of living for adolescents.

DISCUSSION

In the present study majority of the respondents, i.e. 47.2% have economic problem, followed by 40.05% have academic problem, 38.96% have family problem, 30.66% have psychological problem, 25.4% have physical problem, 21.84% high risk behaviours (suicidal thoughts and suicidal attempt), 21.12% negative peer relation, 19.6% have family history of substance abuse, 17.70% have problems related to love affairs, 17.6% have family history of mental illness, 13.2% have problems related to socio-cultural factors and 6.4% have sexual abuse, shows lowest mean percentage. The study was supported by the study conducted by Kwaku Oppong Asante *et.al*. among the senior school students where family problems i.e. lack of support, loneliness, economic problems, psychological problems such as anxiety, uncontrolled emotion, physical abuse, negative peer relations etc. are responsible for suicidal behaviours[11]. According to National Crime Record Bureau (NCRB) of India (2013), causes of suicide in the year 2013 were family problems 24.0% , Illness 19.6% ,Drug abuse 3.4%, love affairs 3.3% change in economic status 2.0%, academic problems 1.8%, poverty 1.4%, physical and sexual abuse 0.2%, other causes 29.0% and causes not known 15.6%.[12]

In the present study 40% of respondents shows low risk, 20.4% shows moderately high risk (suicidal thought) and 39.6% have very high risk (suicidal attempt).

There was significant association found between risk level of the adolescents and selected demographic variables. There is significant relation of risk level with gender, religion, educational standard, stream of education, education of father,

occupation of father, type of family, family history of mental illness, family history of substance abuse and area of living for adolescents. Similar study was conducted by Carolin Donath, Elmar Graessel, Dirk Baier, Stefan Bleich and Thomas Hillemacher (2014)[13] found association of high risk behaviours (suicidal attempts) with family factors like parental warmth, parental control, authoritative parenting and rejecting or neglecting parenting. Further variables, gender, substance abuse (smoking, drinking) migration and parental separation showed statistically significant. An another study conducted by Radhakrishnan R and Cittaranjan A (2012) found that suicidal behaviour was associated with female gender, physical abuse, sexual abuse and psychological distress.[14]

CONCLUSION:

The present study helps to identify the risk factors of suicide and suicidal behaviour among the adolescents and the socio demographic variables associated with risk which will to take preventive measures to decrease the rate of suicide at Goalpara, Assam.

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