



ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLEGE

**ASSESSMENT OF KNOWLEDGE AND RISK OF SUICIDE
AMONG ADDIS ABABA PREPARATORY SCHOOL
STUDENTS**

BY:

YONAS KIFLE (INTERN)

ADVISORS

Mr. TEMESGEN GELETA (MSc)

Dr. GIRMA MAMO (MD)

SEPTEMBER, 2016

ADDIS ABABA, ETHIOPIA



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**A STUDENT RESEARCH PAPER TO BE SUBMITTED TO THE
DEPARTMENT OF PUBLIC HEALTH, SPHMMC, IN THE PARTIAL
FULLFILLMENT OF THE REQUIRMENTS FOR THE DEGREE OF
DOCTOR OF MEDICINE**

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First I would like to thank God for helping me reach this level and also guiding me in doing this research proposal. Next, I would like to thank my advisors Mr. Temesgen Geleta and Dr Girma Mamo for understanding and helping me and I hope I will learn a lot from them during the process of doing my research. And also I want to thank everyone who helped me in many other ways.

Abstract

Background: Suicide can be defined as intentional self-inflicted death, This study was conducted to assess the knowledge and risk of suicide among Addis Ababa preparatory school.

Methods: Institution based systematic random sampling method was used to recruit samples for the study.. The first student was randomly chosen. The randomization was made systematically in every 3rd student during the data collection period, and the first participant was selected by lottery method.

Result: A total of 375 students were involved and all responded, giving a response rate of 100%. 54% of students have poor knowledge about suicide and 46% have good knowledge about suicide. 65% of the students are also at risk for suicide and 35% are not at risk for suicide.

Conclusion and recommendation: In conclusion, the knowledge about suicide is very low among preparatory students. A significant amount of students still believe suicide is associated with the devil. The government and the minister of health should focus on teaching about suicide as it has huge economical and medical benefit both for the government and the individual of the community.

Abbreviation

AIDS: Acquired Immune Deficiency Syndrome

CDC: Central Disease control

Dr: Doctor

E.C: Ethiopian Calendar

G.C: Gregorian Calendar

Mr.: Mister

SPHMMC: Saint Paul's Hospital Millennium Medical College

SPSS: Statistical Package for the Social Science

USA: United States of America

WHO: World Health Organization

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1. Introduction

1.1. Background

Suicide can be defined as intentional self-inflicted death. Suicide attempt is an intentional but unsuccessful act of killing one self and suicidal ideation is thought about killing oneself (5). According to WHO (World Health Organization), a person commits suicide in every 40 seconds somewhere in the world and every 3 seconds, a person attempts to die. A single suicide has a serious psychological, social, and financial impact on at least six other people (6).

Suicide accounts 1% of the disease burden in the world (7). Today, suicide is prevailing as one of the common issues and one can't deny it as a social and communicable anomaly. It's a decision which an individual chooses after going through miserable events of life. This anomaly is in the desperate need of cure but one can't cure it until knowing its etiology and its impact on society. Suicide is one of the leading causes of death for young people in industrial and developing countries(1-3).

Suicide attempts rather than completed suicides have increased most in the youngest age group(4). A history of previous suicidal behavior in the form of one or more non-fatal suicide attempts has emerged as the most powerful predictor of suicide(2,4). It is therefore self-evident that an increasing number of studies have been assembling knowledge on non-fatal suicidal behavior in adolescents. The majority of these studies, however, have used psychiatric based samples and their results cannot therefore be generalized to normal secondary school pupils. In addition, the sociocultural context across different ethno cultural groups has not been studied. Sociocultural context factors on par suicide in Africa have been identified as socioeconomic status, age, gender and ethnicity(3,6-8).

Spirito et al (9) noted sex differences among adolescent suicide attempters. In South Africa, cultural groups have played a central theme in their historical experience(10). This study was, therefore, conducted to evaluate the prevalence of suicidal ideation, plans or attempts among the different ethno cultural groups as such data are hardly available

1.2. Statement of the problem

Globally, suicide represents 1.4% of the global burden of diseases, but the losses extend much further. In most European countries, the number of suicides is larger than annual traffic fatalities (8). According to data from the World Health Organization suicide represented 1.8% of the global burden of disease and it is expected to increase to 2.4% by the year 2020.

Suicide is among the 10 leading causes of death for all ages in most countries and in some countries, it is among the top three causes of death for people aged 15-34 years (9). According to the nationally registered mortality data there were 5448 deaths due to suicide in South Africa between 1984–1986 which was 1.3% of total death (10).

Suicidal ideation is an important phase in the suicidal process, preceding suicide attempts and completed suicide. Weak social ties and low support from friends or relatives have been significantly associated with suicidal ideation (11). Attempted suicide is one of the major risk factors for completed suicide, is associated with psychiatric disorders, and is also a potentially fatal event. Adolescence is a period of exploration and experimentation that needs adjustment to physical maturity,

changing roles within families and with peers, and the emergence of a more independent lifestyle. Compared to adults, adolescents show higher stress levels and fewer coping resources. The stressful process of differentiation and identity consolidation can result in significant psychological distress. Studies show that at least one in five children and adolescents have a mental health disorder. At least one in 10, or about six million people, globally have a serious emotional disturbance (12).

Globally among young people of 15-24 years of age, suicide is the third leading cause of death, next to unintentional injury and homicide. In 1996, more teenagers and young adults died of suicide in the US than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia and influenza, and chronic lung diseases combined (13). Many of the basic risk factors for adolescent suicidality are well known. Among these, the most

important are depression (3-6), exposure to suicide or suicide attempts by family members or friends (7-8), substance or alcohol abuse (9), and having guns in the house.

1.3. SIGNIFICANCE OF THE STUDY

Suicide has become a major risk factor in our day to day life and it is the top 3 cause of death in adolescents. I wanted to see how much the young and the future generation is at risk of committing suicide and since the young population is the future of the country, this research will see how suicide will affect the youth and the future generation hence the future of the country. According to CDC, an alarming increase has been witnessed in the past decade in people who commit suicide and in our country this issue has not been discussed freely so this research will help by small amount to address the issue.

2. LITERATURE REVIEW

Suicidal behavior might be regarded as a long process usually stretches over many years, from suicidal ideation to planning and culmination in suicidal attempt (14). Suicidal ideations are basically the thoughts which come in a person mind due to some problems and worthlessness of life and prioritize the death as a better option and those who act on those thoughts commit suicide. About one million people die by suicide each year globally and majority of them belong to developed countries (15). Suicide is the third leading cause of death in USA.

In the past the suicide rate was 5% between the ages 15 to 24, but now it is raised to 14%. The suicidal attempt rate is higher in females while the death rate from the suicide is higher in males. In Asian countries like Hong Kong, Taiwan and Singapore the suicidal rate is low below the age of 10, while its rate increases between the age 10 to 14 years

like the western countries and there is a dramatic increase for the rate between the 15 to 24 years of age.

In Islam suicide is unpardonable sin and Pakistan as an Islamic country has a punitive law against the suicide attempts. Unexpectedly the incidence of suicides are reported in the magazines and newspaper but no one take a step to talk about the prevention of suicidal behavior among the people as it is considered as taboo in the society due to the religious views, social norms and legal law of suicide. In Addis Ababa, even though hospital statistics on Suicide, Para suicide, and ‘Accidental Poisoning’ are available, they have not been systematically analyzed. Clinical researches also have not been carried out. The reason was that researches on these topics have been rather discouraging because of political consequences as Suicide and Para suicide were taken as offense against the government. This early notion about Suicide and Para suicide in Ethiopia is probably changing now and seen as signs of acute emotional disturbance (a cry for help) or a consequence of mental illness. Kebede and Ketsela(3) found no significant associations between suicide attempts and age, sex, family history of suicide, parental education level and heavy alcohol intake among urban Ethiopian high school students. Other similar studies found a relationship between knowing someone (a friend or family member) who had completed suicide and suicide attempters(15). However, Robert et al (17) found that among American adolescents (grades 6-8) also age and “being worse off economically” were associated with suicide attempt.

2.1. CAUSES

The causes for suicidal behavior are immense which captivate these poor and innocent creatures in great trouble and sometime even seize their lives. Suicides are infrequently voluntary. In teenagers the suicidal ideations are related to multiple internal and external factors such as depression and stressful life events, parent child conflict, lack of parental support, family history of suicidal behavior, psychopathology, negative life events, child sexual abuse, same gender orientation, hopelessness, risky behavior that is drug and alcohol abuse, aggressive impulsive behavior, pessimism, conduct behavior, panic

disorder, firearms availability, body image dissatisfaction, suicide contagion and biological risk factors.

Depression has been acknowledged as a foremost risk factor for suicidal ideation, suicide attempts, and successful suicide. In the applicants with the moderate to severe depressive symptoms, the intensity of depressed effects was the most momentous prognosticator of the existence of suicidal ideation and the wish of killing oneself both in boys and girls (19).

There is a strong association between the pressure to excel in school and the suicidal behavior among the teen agers. Growth, development and the behavior of the child is totally dependent on the child rearing style of parents. There authoritarian parenting style, higher maternal over protectiveness, less parental warmth, negative family environment and child rearing practices leads to the low self-esteem and depression which ultimately leads to the suicidal ideation and attempts. Lai and McBride-Chang (20) stated that lack of parental care and understanding, a non-harmonious family, and conflicts with parents were all related to suicidal ideation in Hong Kong adolescents.

Stressful interpersonal interaction initiates the majority of youngster suicide in seconds. Genetic factor and family history of suicidal behavior and parental psychopathology also increases the risks of suicide among the teen agers. Most of the adolescents who committed suicide had major psychiatric problems like depressive and substance abuse disorders. Major depression has been the most prevalent condition. Suicidal intent is also associated with psychopathology and stress from mental disorder. Access to the lethal method like the firearm availability especially the guns in homes is the foremost hazards for suicide. It has been found that the successful and unsuccessful attempt of suicide is higher in gay, lesbian and bisexual youngster built upon the strain and isolation related to their sexual orientation stigma and parental rejection. Expert believes that coverage of suicide by the media can also increases the risks of imitation or contagion. Besides all these, exposure to the selective serotonin reuptake inhibitors also increase the risks of completed or attempted suicide. An abnormality in the neurotropic system also adds towards the suicidal tendency.

2.2. DIFFERENT LETHAL METHODS FOR SUICIDE

People use many different methods to perform this violent act. Some of them are suicide or self-inflicted assassinating by solid, liquid substances, gases and vapors. Some people prefer hanging, strangulation, suffocation, firearm and explosive, submersion, cutting or piercing instruments, jumping from high places and some people did it by unspecified means. Among them the most used method is the suicide through hanging, suffocation and strangulation.

2.3. SUICIDAL IMPACT

There is no rose without thorn, so there must be some negative aspects of suicidal ideation as well as suicidal attempts. It has a devastating effect on his/her individual and family life but has an impact on the society as well. Suicidal is fatal, but incase if person survive then he may have serious injuries like broken bones organ failure and damage of the brain. Every human being has an impact on other. It takes youngsters from their families, parents from kids, and the society is deprived due to their absence. Suicide hurts family to such a level that their wounds never heal. They always blame and question themselves that why they were not given the chance to help them. Suicide is an egocentric action that ceases the relations of reliance in family. Their family has the feeling of hurt, resentment, depression, guilt and the most important facing the stigma of suicidal act of family member. Suicide is contagious and spread by the process of idea and imitation. Friendship with suicidal others may increase the risk of suicidal ideation and suicide attempts (21).

2.4. WAYS TO DECREASE SUICIDE ATTEMPTS

While coming on to the solution, it is not easy to recognize the people with suicidal ideation, and to help those who did the attempt. We don't have the magic stick to change their mind in very little time; actually it requires a lot of efforts, time and the collaboration of different institutions. As a member of the society we have to assess their

sufferings and to help them in accessibility to different social groups who would help them in different continuum.

Suicides are preventable and are worth preventing. Suicidal ideation can be the prognosticator of suicidal acts. So if somebody talks about or think of killing oneself, give your full attention to them. It is important to know about the risk factors for suicidal ideation as it increases the risks for suicidal attempts and ultimately completed suicide. There are three basic levels for the suicide prevention that is primary, secondary and tertiary. In the primary level there are the early recognition of depression, adequate treatment, psycho education of health professional, clinical evaluation of suicidal risks and the other relevant public health measures.

Prevention of depression is one of the methods that are helpful to reduce the suicidal behavior. Suicide rate has been decreased by training the primary health care professional in the detection and management of depression (15). Counseling is one of the best ways of decreasing their depression and show good results. The retention rate for students who received counseling was 14 percent higher than for students who didn't receive counseling. In the public health measure we must reduce the access to the fatal methods and increases the accessibility to the hospital and to the awareness programs to reduce the risks.

At the secondary level we must evaluate the patient past and present suicidal behavior. At this level we have to treat the patient through the pharmacological, behavioral, electroconvulsive and psychotherapy. While at the tertiary level we have to decrease the lethality of suicide attempts, communication from inpatient to outpatient team and the most important the assessment of other family members for risks (21).

We can also take the help of religious scholar in this raising issue. Every religion does not accept suicide like in our country, orthodox Tewahido and protestant rejects suicide and declares every suicide victim goes to hell and the last prophet Muhammad (PBUH) said, "Do not wish for death, for the terror of the place whence one looks down is severe. It is part of a man's happiness that his life should be long and Allah Who is Great and

Glorious, should supply him with repentance” (Hadith –Qudsi). Cognitive behavioral therapy for suicide, prevent the reoccurrence of suicidal behavior in adolescents who have recently attempted suicide. Cognitive behavioral therapy basically, “weaken the connections between troubles some situations and your habitual reactions to them,...It also teaches you how to calm your mind and body, so you can feel better, think more clearly, and make better decisions,”(18).

In the end I would recommend that there must be awareness programs in the society about this curse, its proper assessment, providing the immediate care to those who God forbade did the attempts. There must be counselor in the hospitals, schools, colleges, universities and in the community for the analysis and counseling of these people.

3. OBJECTIVES

3.1. General objective

-  To assess the knowledge and risk of suicide among 3 Addis Ababa preparatory school students.

3.2. Specific objectives

- To assess the prevalence of suicidal thoughts among 3 Addis Ababa preparatory school students
- To assess the factors that lead to suicide
- To assess students awareness about the impact of suicide on families and society.

4. METHODS AND MATERIALS

4.1. STUDY AREA

Addis Ababa is the capital city and the largest city of Ethiopia. It has a population of 3,384,569 according to the 2007 population census, with annual growth rate of 3.8%. The city was founded in 1886 G.C by Emperor Menelik. Hiwot birihan preparatory school is a school located in Addis Ababa in front of pastor(Ethiopian public health institution). It is a protestant high school and consists of 643 students that are educated at regular classes and is the ideal place to collect the data and see how suicide affects the youth and teenagers. Cruise school is located near Bistrate Gabriel church which is a private high school and has a total of 943 students in preparatory and Medhaniealem public school which is a government high school located near Wingate with 1466 students in preparatory..

4.2. STUDY DESIGN

Institution based descriptive cross sectional study was conducted from January 1 2017 to January 30 2017 in the 3 above mentioned preparatory schools, Addis Ababa.

4.3. SOURCE POPULATION

All students that were being enrolled in the 3 above mentioned preparatory school in the year of 2009 E.C.

4.4. STUDY POPULATION

Selected students that were present at the time of data collection and willing to participate on the research.

4.5. TARGET POPULATION

All preparatory students in Addis Ababa.

4.6. SAMPLE SIZE

The Sample size was determined using single population proportion formula taking p 50 % with 95% confidence level, 5% margin of error.

$$n_0 = \frac{Z^2 p (1-p)}{d^2}$$

Z=1.96 corresponding to 95% confidence interval

n =sample size

p=50 %

d= degree of precision within (+ or -) 5% of the true value

The sample size was 384 students

Correction formula n=3,052

$$n = \frac{\frac{Z^2 p(1-p)}{d^2}}{1 + \frac{1}{N} \left(\frac{Z^2 p(1-p)}{d^2} \right)}$$

The sample size was 341 students.

For non respondents with a contingency of ten percent, the total sample number was 375 patients. It was divided into three which is 125 for the three high schools.

4.7. SAMPLING PROCEDURE

Institution based systematic random sampling method was used to recruit samples for the study.. The first student was randomly chosen. The randomization was made systematically in every 3rd student during the data collection period, and the first participant was selected by lottery method.

INCLUSION CRITERIA

- Students of the high school
- volunteers

EXCLUSION CRITERIA:

- Students not preset in class
- Students who are not volunteers

4.8. VARIABLES

Dependent variable

- ✓ Knowledge on suicide
- ✓ Risk of suicide

Independent variables

- ✓ Demographic variables - age, sex, educational status, family monthly income, marital status, occupation, profession, closeness to the family

4.9. DATA COLLECTION PROCEDURES

Data collection tool: The data was collected using structured questionnaire. The questionnaire is prepared in English because they are students of preparatory class. The questionnaire is developed according to the objectives of the study.

Methods of data collection: self administered questionnaire technique was used.

PRETEST (PILOT) STUDY

A trial test of the questionnaire was conducted among 16 students of the 3 mentioned preparatory schools. These students were included in the actual sample size. Problems detected from the questionnaire in the pilot study were addressed by inserting more specific terminology. The pre-test was used to revise questionnaire clarity, order of question, time required to complete the questionnaire and consistency of the data.

4.10. OPERATIONAL DEFINITION

Suicide is defined as an intentional, self-inflicted death while ‘attempted suicide’ is defined as a non-fatal suicidal act.

The terms ‘suicidal behavior’, which generally embraces both Suicide and ‘Attempted Suicide’, and “suicidal ideation” are extreme expressions of underlying psychopathology, not diagnoses by themselves.

A standardized questionnaire for assessing the knowledge of suicide was not found so I used experts opinion to formulate my questionnaire on knowledge and with the involvement of **my advisor** a student who scores 7 out of the 10 questions has good knowledge about suicide while those who score less than 7 has poor knowledge. With regards to the risk of suicide, I used the SAD PERSONS scale which was developed by Patterson and those who score up to 5 has no risk while those students that score above 5 have risk for suicide.

4.11. DATA MANAGEMENT AND ANALYSIS PROCEDURE

Data collected was checked visually for completeness, coded and entered into SPSS version 20. The data collected was analyzed using SPSS 20.

4.12. ETHICAL CONSIDERATION

Before the data collection permission was obtained from SPHMMC. During data collection, all methodological and ethical considerations was taken care of. Informed consent was obtained from the participants. The participants were encouraged to ask questions. All information obtained in the course of this study was treated with confidentiality and was used outside the scope of the study. The school administrator and director were asked permission and were told about the research purpose and why their students were chosen.

4.13. DISSEMINATION OF RESULT

After the research paper gets approved by the advisor, the findings of the study will be submitted to SPHMMC. The findings of this study will be made available for anyone who wishes to review them and use them as any form of guidance.

5. RESULT

5.1. Socio-demographic characteristics of the students at Hiwot Birhan, cruise and Medhanialem highschoools, January 2017, Addis Ababa Ethiopia

The total sample of the study was three hundred and ninety one students(391) with 7% non response rate of whom 196(51.6%) were male while 184(48.4%) were female. The age of the sample ranged from 15-25 with 237(62.4%) of them being in the range of 15-18, 123(32.4%) of them being in the range of 19-21 and 20(5.3%) of them being in the range of 22-25 years of age. Of the respondents, 20(5.3%) of them were married and 360(94.7%) of them were single. 215(56.6%) of the respondents were grade 12 students while 165(43.4%) of them were grade 11 students. According to my data, 84(21.5%) of the respondents were muslim in religion, 96(24.6%) were orthodox in religion, 197(50.4%) were protestant in religion, 6(1.5%) were catholic in religion and 8(2%) were in the category of "other" religion. The respondent's department were also assessed and 194(51.1%) of them were natural students while 186(48.9%) of them were social students. Of the respondents, 275(72.4%) of them were living with their families, 67(17.6%) were living with relatives, 14(3.7%) were living alone, 14(3.7%) were living with stranger and 10(2.6%) were adopted.

Table 1 socio-demographic characteristics of the students at Hiwot Birhan, cruise and Medhanialalem high schools, January 2017, Addis Ababa Ethiopia

Characteristics	frequency	percentage
Age		
15-18	242	61.9
19-21	129	33.0
22-25	20	5.1
26-28	0	0.00
Sex		
Male	201	51.4
Female	190	48.6
Marital status		
Married	21	5.4
Single	370	94.6
Class		
Grade 11	168	43
Grade 12	223	57
Religion		
Orthodox	96	24.6
Muslim	84	21.5
Protestant	197	50.4
Catholic	6	1.5
Other	8	2
Department		
Natural	201	51.4
Social	190	48.6
Living standard		
I live with family	284	72.6
I live with relative	68	17.4

I am adopted	10	2.6
I live with stranger	15	3.8
I live alone	14	3.6

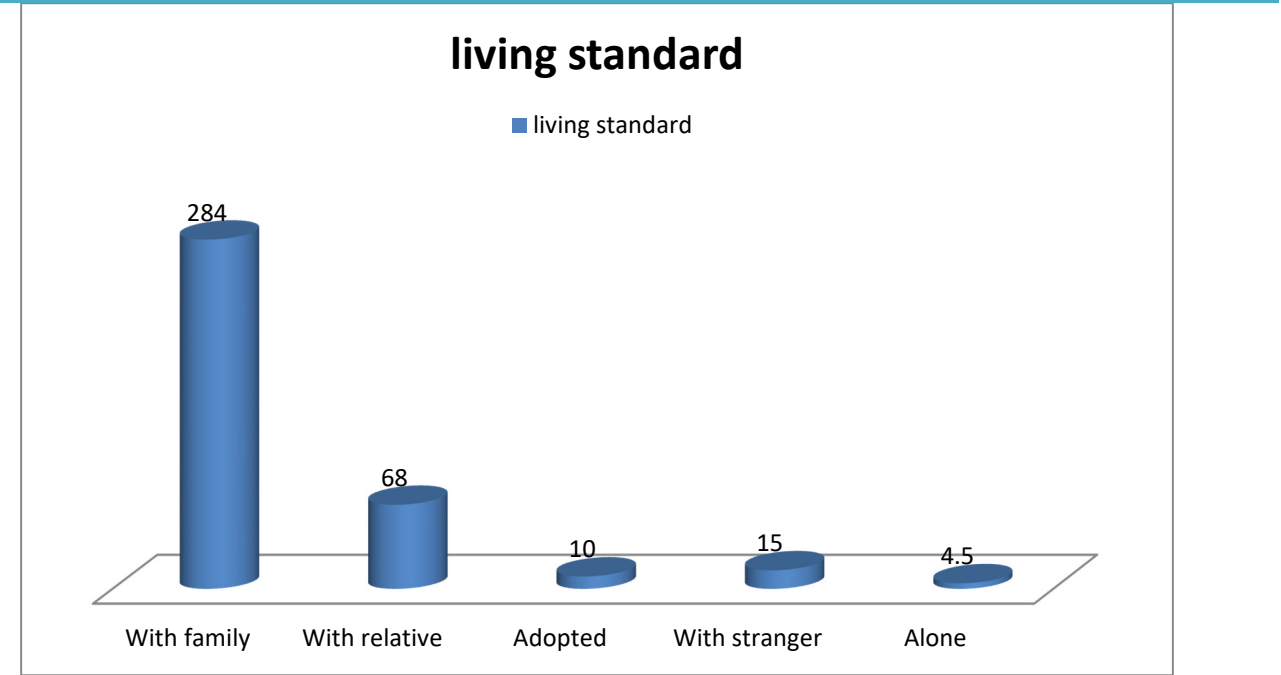


Figure 1: bar chart for living standard of students of the students at Hiwot Birhan, cruise and Medhanialem highschoools, January 2017,Addis Ababa Ethiopia

Table 2 knowledge of the of the students at Hiwot Birhan, cruise and Medhanialem high schools about suicide, June 2017,Addis Ababa Ethiopia

Characteristics	frequency	Percentage
Have you heard about suicide		
Yes	391	100
No	0	0
Commonest age group		
New born	0	0
Adolescents	272	69.6
Middle-aged	75	19.2
Old people	44	11.3
Associated with suicide		
Depression	180	46
The devil	124	31,7
God's wrath	18	4.6
Family history	69	17.6
A person commits suicide if depressed		
Yes	251	64.2
No	140	35.8
Suicidal person should be left alone		
Yes	180	46
No	211	54
A person repeatedly trying to commit suicide is not at risk		
Yes	153	39.1
No	238	60.9
Suicide only occurs among poor		
Yes	52	13.3

No	339	86.7
Suicide is a medical emergency		
Yes	279	71.4
No	112	28.6
Who will help suicidal person		
Psychiatrist	196	50.1
Priest	118	30.2
Family	65	16.6
Friends	12	3.1
Sorcerer	0	0
Suicide can be avoided by money		
Yes	149	38.1
No	242	61.9

Table 3 risk assessment of the students at Hiwot Birhan, cruise and Medhanialalem high schools, January 2017,Addis Ababa Ethiopia

Characteristics	frequency	Percentage
Thought about killing yourself		
Never	175	44.8
It was just a passing thought	125	32
I briefly considered it, but no seriously	42	10.7
I think about it when i get mad	40	10.2
I repeatedly thought about killing myself	9	2.3

Have you ever tried to kill yourself		
Never	303	77.5
I had a plan to kill myself	63	16.1
I attempted to kill myself once	21	5.4
I attempted to kill myself several times	4	1
Have you ever told someone you were going to kill yourself		
Yes	85	21.7
No	306	78.3
Have you ever felt feeling of worthlessness, self hate or hopelessness		
Yes	227	58.1
No	164	41.9
Do you ever feel like dying will solve all your problems		
Yes	115	29.4
No	276	70.6
Do you have a family member or a friend that committed suicide		
Yes	130	33.2
No	261	66.8
Do you think it is easy to get materials used for suicide		
Yes	324	82.9
No	67	17.1
What chance is there you will consider killing your self		
Not a chance at all	264	67.5
Some chance	115	29.4
Very likely	12	3.1
If you decided to kill		

yourself, is there a person who is willing to stop you		
Yes	244	62.4
No	147	37.6
If you get depressed, do you consider getting help from a medical proffesional		
Yes	209	53.5
No	182	46.5

Figure 2 pie chart for cumulative knowledge of the students at Hiwot Birhan, cruise and Medhanialem highschools, January 2017,Addis Ababa Ethiopia

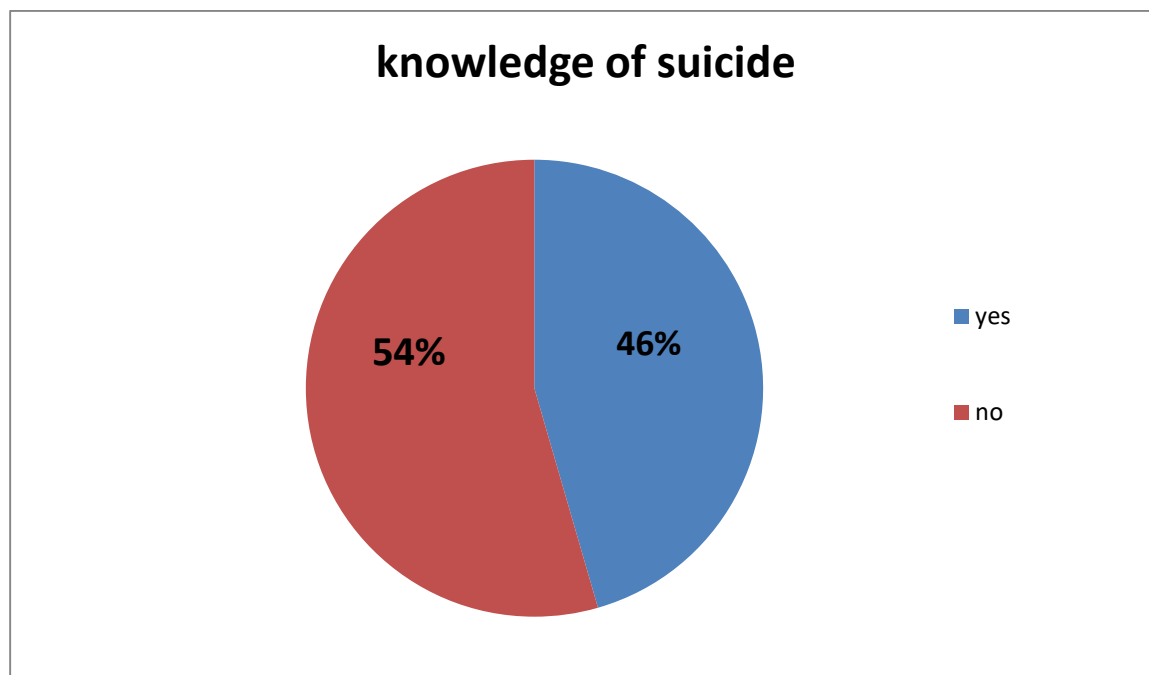
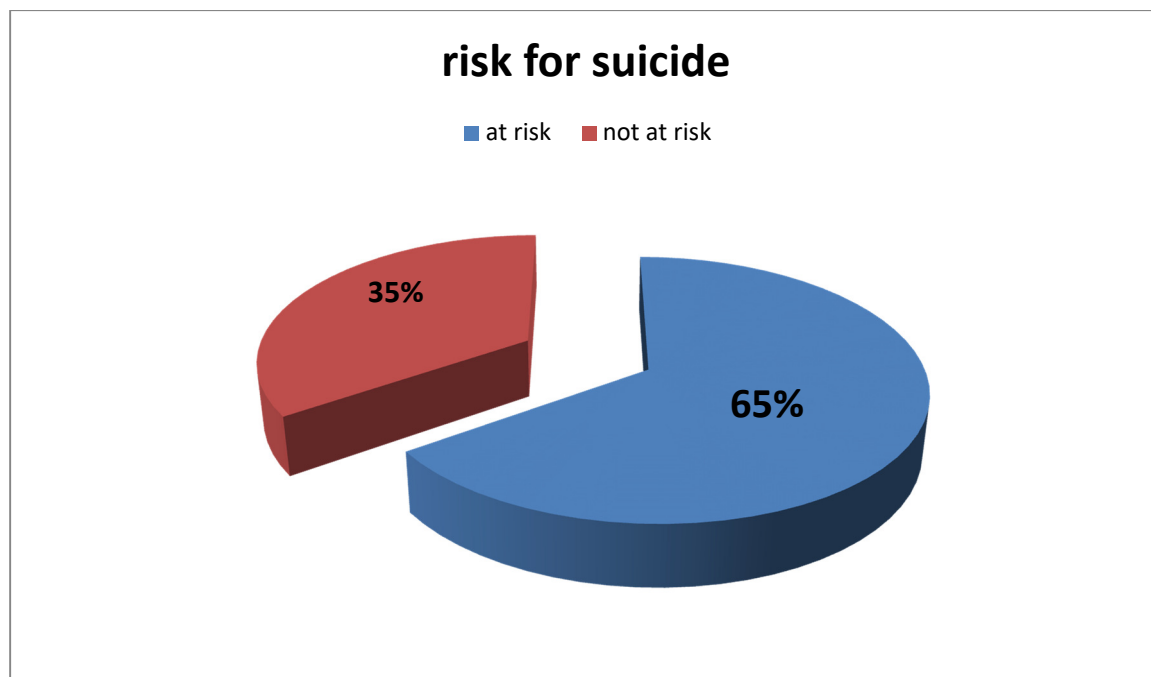


Figure 3: pie chart for assessment of risk of the suicide of the students at Hiwot Birhan, cruise and Medhanialem highschoools, January 2017,Addis Ababa Ethiopia



5.2. Relation of different variables of participants with knowledge and risk on suicide

I have conducted chi square and binary logistic regression statistical tests to investigate whether various respondents' baseline characteristics could determine/influence the level of knowledge and risk on suicide using 95% confidence interval.

Table 4 relation between baseline characteristics of the respondents with knowledge of suicide

Variable	Categories	COR	AOR	95% CI	p-value
Age	15-18	1.00	1.00		0.000
	19-21	0.423(0.268-0.668)	0.642(0.392-0.942)		0.000
	22-25	2.126(0.790-5.721)	4.129(1.343-6.543)		0.135
Marital status	Married	1.00	1.00		0.082
	Single	0.355(0.133-0.944)	0.723(0.243-0.933)		0.038
Religion	orthodox	1.00	1.00		0.011
	Muslim	1.726(0.955-3.118)	2.019(0.233-4.332)		0.071
	Protestant	0.791(0.483-1.296)	1.023(0.321-4.654)		0.352
	catholic	0.616(0.108-3.527)	0.603(0.132-3.443)		0.587
	Other	8.628(1.022-72.861)	2.110(0.123-88.439)		0.048
Living	With	1.00	1.00		0.206

stand	family			
	With	1.671(0.974-	2.001(1.843-	0.062
	relative	2.869)	3.546)	
	Adopted	0.000(0.000)	0.000	0.999
	With	1.600(0.541-	1.093(0.345-	0.396
	stranger	4.734)	4.965)	
	Alone	0.480(0.147-	0.837(0.432-	0.224
		1.568)	1.731)	

Table 5 Relation between baseline characteristics of the respondents with risk of suicide

Variable	Categories	COR	AOR	95% CI	p- value
Department	Natural	1.00	1.00		0.000
	Social	1.577(1.002- 2.481)	1.913(1.234- 2.543)		0.049
Religion	orthodox	1.00	1.00		0.049
	Muslim	1.742(0.930- 3.264)	2.011(1.234- 4.345)		0.083
	Protestant	0.797(0.455- 1.395)	1.029(0.543- 1.874)		0.427
	catholic	0.000(0.000)	0.000(0.000)		0.999
	Other	2.692(0.627- 11.560)	1.791(0.231- 9.321)		0.183

6. Discussion

This research found that 54% of the students had poor knowledge about suicide. This research also found 65% of the students are at risk for suicide. A study conducted in Dessie town preparatory students(22) found that a substantial proportion of adolescents have multifaceted psychosocial problems, this is also comparable with researches done in Jimma and Addis Ababa. A study conducted by Kebede and Ketsela(3) reported a life time prevalence of suicide attempt of 14.3% and the study in Dessie(22) reported the lifetime prevalence of suicide attempt to be 6.6%. This results are lower than my research maybe because I tried to include variety of schools and restricted to preparatory school students who are in higher stress due to higher level of education.

In this study age, marital status, religion and living standard were found to be strong predictors of knowledge of suicide. This is in accordance to most findings regarding adolescent suicide attempt. The older age group had better knowledge about suicide, this may be because they have better experience in life and faced many challenges and witnessed more suicidal activities than their younger peers.

This research didn't find significant association between risk of suicide and age, sex, living standard and grade of the students. Kebede and Ketsela(3) found no significant associations between suicide risk and age, sex, family history among urban Ethiopian high school students. Other similar studies found a relationship between knowing someone who had completed suicide and suicide risk. This research found association between the department of students and religion with risk of suicide. This may be due to natural students are more focused on their school works and are more preoccupied with other tasks and some religions are more strict on suicide than others.

This research found that out of 391 respondents, 125 thought about killing their selves even if it was passing thought, 42 of them briefly considered it and 9 of them repeatedly thought about killing themselves. And 21 of them attempted to kill themselves once and 4 of them tried to kill themselves several times. This result is higher as compared to other results

conducted in Addis Ababa(3) and Dessie(22) may be due to the time gap among the researches and also the involvement of three preparatory schools in this research.

7. Conclusion

In conclusion, the knowledge about suicide is very low among preparatory students. A significant amount of students still believe suicide is associated with the devil which shows religion still plays a significant role in suicide. This shows a significant amount of students prefer to go to a priest rather than go to a psychiatrist. Associated with this, the risk of suicide is also high among preparatory students. A significant amount of students still think about killing themselves and feel a sense of worthlessness and hopelessness. And with an alarming increase of suicide among adolescents worldwide, this result is no surprise.

8. Recommendation

The government and the minister of health should focus on teaching about suicide as it has huge economical and medical benefit both for the government and the individual of the community.

Mass media should teach the community about risk of suicide on major public and private Medias as they can reach the broad society,

Health extension workers and all health professionals should play a significant role in addressing the matter to the community.

Parents should also have a clear and brief discussion with their children about suicide

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ANNEXES

Dear participants:

My name is Yonas Kifle and I am a graduating student at St paul's hospital millennium medical college, For my final research project, I am examining the knowledge and risk of suicide among Addis Ababa preparatory school students and i have chosen your school to conduct my research and i kindly invite you to participate in this research study by completing the attached questioner.

The following questioner will require approximately 10 minutes of your time. There is no compensation nor any risk for responding. In order to insure that all information is confidential, your name will not be included. Participation is strictly voluntary and you can refuse to participate at any time.

If you require additional information or have any questions, please contact me at the number listed below.

N.B

- Show your answer by ticking the box in front of the respective choices.(☐)
- You can select multiple answers if you think it is necessary.

Sincerely,

YONAS KIFLE

(phone number: 0912747317 and e-mail: yonikifle21@gamil.com)

Part I: Socio demographic section

1. Age

☐ 15-18 ☐ 19-21 ☐ 22-25 ☐ 25-28

2. sex

☐ Male ☐ Female

3. Marital status

☐ Married ☐ Single ☐ Divorced ☐ Widowed

4. Class

☐ Grade 11 ☐ Grade 12

5. Religion

☐ Orthodox ☐ Muslim ☐ Protestant ☐ Catholic ☐ Other

6. Department

☐ Natural ☐ Social

7. Living standard

☐ I live with family ☐ I live with relatives ☐ I am adopted ☐ I live with stranger

☐ I live alone

Part II: Knowledge about suicide

1. Have you heard about suicide?

☐ Yes ☐ NO

2. Which age group is the commonest to commit suicide?

☐ Newborns ☐ Adolescents ☐ middle-aged individuals ☐ old people

3. Which of the following is associated with suicide?

☐ Depression ☐ The devil ☐ God's Wrath ☐ Family history

4. Can a person commit suicide if he/she is depressed?

☐ Yes ☐ NO

5. Suicidal person should be left alone until he calms down and regain the will to live.

☐ Yes ☐ NO

6. A person who is repeatedly trying to commit suicide is just seeking attention and not at risk of killing him/her self.

☐ Yes ☐ NO

7. Suicide only occurs among poor people

☐ Yes ☐ NO

8. Suicide is a medical emergency

☐ Yes ☐ NO

9. Which of the following person can help a suicidal person?

☐ Psychiatrist(medical professional) ☐ Priest ☐ family ☐ Friends ☐

Sorcerer

10. Suicide can be avoided if a person has enough money to support him/her self and family.

☐ Yes ☐ NO

Part III: Risk of suicide

1. Have you ever thought about killing yourself?

- ☐ Never
- ☐ It was just a passing thought
- ☐ I briefly considered it, but not seriously
- ☐ I think about it when I get mad
- ☐ I repeatedly thought about killing my self

2. Have you ever tried to kill yourself?

- ☐ Never
- ☐ I had a plan to kill myself
- ☐ I attempted to kill myself once
- ☐ I attempted to kill several times

3. Have you ever told someone that you were going to kill yourself?

- ☐ Yes ☐ NO

4. Have you ever had a feeling of worthlessness, self hate or hopelessness?

- ☐ Yes ☐ NO

5. Do you ever feel like dying will solve all your problems?

- ☐ Yes ☐ NO

6. Do you have a family member or a friend that committed suicide?

- ☐ Yes ☐ NO

7. Do you think it's easy to get materials that can be used for suicide?

- ☐ Yes ☐ NO

8. What chance is there the possibility you will consider about killing your self

☐ Not a chance at all

☐ Some chance

☐ Very likely

9. If you decided to kill yourself at this time, Is there any person in your environment that is willing to stop you?

☐ Yes ☐ NO

10. If you ever get depressed, Do you consider getting help from a medical professional?

☐ Yes ☐ NO

SAD PERSONS SCALE (Quick & easy assessment)

Sex - male

Age - after age 45

Depression

Previous suicidal attempt

Ethanol abuse

Rational thinking loss – psychotic state

Social support lacking

Organized plan

No spouse

Sickness – physical illness

SAD PERSONS represents *10 areas of assessment* .

The scoring for this is as follows:

0-2 equals - little risk

3-4 equals - following patient closely

5-6 equals - strongly considering admission

7-10 equals - a very high risk ,hospitalize

SUICIDE IS NEVER THE ANSWER!!!!!!

THANK YOU FOR YOUR COOPERATION!!!