



ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE

MAGNITUDE AND ASSOCIATED RISK FACTORS OF
COMMON MENTAL DISORDERS AMONG HIGH SCHOOL
STUDENTS

By;

MITIKU GETU MOGES (MEDICAL INTERN)

A STUDENT RESEARCH PROPOSAL TO BE SUBMITTED
TO THE DEPARTMENT OF PUBLIC HEALTH, SPHMMC, IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF MEDICINE

FEBRUARY 2018

ADDIS ABABA, ETHIOPIA



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ABSTRACT

Background: Globally, 14 per cent of the global burden of disease is attributed to mental illness – with 75% of those affected being found in low-income countries – which includes a broad spectrum of diagnoses, from common mental illnesses such as anxiety and substance abuse, to severe illnesses like psychosis.

Objectives: To determine the magnitude and factors associated with common mental disorders among high school students Gulele sub city

Methods: an institutional based cross-sectional study and it will be done in four high schools which are found in Gulele Sub-city.

Time: This study will be held from March to July, 2018.

Budget: personnel = **5350 Birr**

Material = **4450.25 Birr**

Communication and transportation = **2500 Birr**

Total with 10% contingency = 12,423.25 Birr

Acronyms and abbreviations

AACAEB- - -Addis Ababa City Administration Education Bureau

GPA- - - grade point average

GSHS- - - Global School-Based Student Health Survey

HIV/AIDS- - -Human Immune Virus/ Acquired immune deficiency syndrome

IRB- - -Institutional Review Board

SES- - -socioeconomic status

SPSS- - - Statistical Package for Social Sciences

SRQ- - - self-reporting questionnaire

SPHMMC- - - St. Paul's Hospital Millennium Medical College

WHO- - -World Health Organization

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Annex i: Location of gulele sub city

Annex ii: Conceptual framework for schools as communities theoretical frame work for mental health problems

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1. INTRODUCTION

1.1.1. Background

The World Health Organization (WHO) defines mental health as ‘a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. It should be noted the definition does not refer exclusively to the absence of “mental illness”, but also addresses the concept of “mental wellness”. [1]

Common mental disorders include Anxiety, Depression and Somatoform disorders and they are characterized by symptoms such as insomnia, fatigue, irritability, forgetfulness, difficulty in concentrating and somatic complaints. [2]

Globally, 14 per cent of the global burden of disease is attributed to mental illness – with 75% of those affected being found in low-income countries – which includes a broad spectrum of diagnoses, from common mental illnesses such as anxiety and substance abuse, to severe illnesses like psychosis. [3]

In Africa where mortality is still mostly the result of infectious diseases and malnutrition, the morbidity and disablement due to mental illness receive very little attention from the government. Studies conducted in Kenya and South Africa reported that the prevalence of common mental disorders found to be 10.8% and 34.9% respectively. [2]

Ethiopia, which is one of the developing countries in the world, malnutrition and preventable infectious diseases are very common. Even if mental health problems are prominent, it is regarded as nonlife threatening. As a result, no attention has been given to mental health problem. [4]

In Ethiopia, mental illness is the leading non-communicable disorder in terms of burden. Indeed, in a predominantly rural area of Ethiopia, mental illness comprised 11% of the total burden of disease, with schizophrenia and depression included in the top ten most burdensome conditions, out-ranking HIV/AIDS. [5]

Community based studies conducted using the same instrument reported that the prevalence of common mental disorders in Butajira, Addis Ababa and Hadiya district was 17.4%, 11.7% and 11.2% respectively. [2]

It is thus important to understand the causation and development of various mental disorders to better prevent, detect, and treat mental illness and to mitigate its consequences. [6]

Mental illness is associated with many contributing and/or causative factors. Genetics and other biological variables (e.g., abnormal balances of neurotransmitters and brain defects and injury) and psychological issues (e.g., trauma and neglect) are examples of such factors that have been significantly linked to mental health. Additionally, numerous environmental factors are associated with mental illness. [6]

Examples of the environmental factors associated with mental illness include: stressors such as the death of a loved one, separation/divorce, changing schools, job loss, and financial hardships; cultural and social variables; prenatal exposure to viruses, toxins, alcohol and/or drugs; nutritional deficiencies; chronic medical disorders; autoimmune diseases and infections; tobacco use and excessive alcohol intake; air pollution and toxicant exposure; high weather temperatures; seasonal terns; natural disasters; and rural geographical location. [6]

There are also various psychological factors that are associated with the causation of mental illness. For example, psychological trauma, frequently as a result of emotional, physical, or sexual abuse, is a critical etiological factor in the development of many mental disorders in childhood and adulthood. [6]

For more than a decade, the problem of mental health in children, with rates of those affected being between 10% and 20%, worldwide, has increased [7]. We know that new generations are now more likely to have mental health problems than previous ones, and that inadequate mental health may be linked with suicide cases, which are the second and third causes of teenage mortality, according to several international studies reviewed [8]. In fact, the presence of mental health problems in the parents could be a predictor of mental health problems in children, and therefore this situation would form a cycle where the difficulties could pass from parents to children. [9]

There is a strong association between poverty and child and youth mental health problems. The odds of a child or youth from a family living in poverty having a mental health problem are three times that of a child from a family that is not living in poverty. This relationship is stable and consistent across countries, measures of poverty, methods of determining diagnosis and different times. [10]

Childhood poverty is associated with increased mental health difficulties and other difficulties when these difficulties are measured cross-sectionally or longitudinally. The effect of family poverty in the short term, such as into adolescence, is greater on academic than psychiatric outcomes. The effect of family poverty on longer-term outcomes, such as into adulthood, is greater on physical health outcomes than on mental health outcomes. The latter are more strongly associated with adult socioeconomic status (SES). [10]

Academic stress involves mental distress regarding anticipated academic challenges or failure or even an awareness of the possibility of academic failure. [11] During the school years, academic stressors may show in any aspect of the child's environment: home, school, neighborhood, or friendship. [12] Kouzma and Kennedy reported that school-related situations – such as tests, grades, studying, self-imposed need to succeed, as well as that induced by others – are the main sources of stress for high school students. [13] The impact of academic stress is also far-reaching: high levels of academic stress have led to poor outcomes in the areas of exercise, nutrition, substance use, and self-care. [14]

The risk factors associated with increased prevalence of child and youth mental health problems

can be found on three levels – child, family and community. They are:

Child level:

- Learning difficulties
- Irritable or difficult temperament

Family level:

- Abusive and neglectful parenting
- Harsh and inconsistent parenting
- Parental mental illness and substance use

- Teen parenthood
- Unstable home environment

Community level:

- Inadequate access to health care
- Isolation from supportive neighbors
- Inadequate educational opportunities
- Inadequate adult supervision
- Association with deviant peers

Protective factors for child and youth mental health problems are easy temperament, good learning skills, good social skills and positive beliefs about the larger world at the individual level, and support from at least one consistent care-giving adult. Multiple risk and protective factors have cumulative effects on child outcomes (increasing and decreasing difficulties respectively). [10]

1.1.2. Statement of the problem

Mental illness is becoming an emerging issue in Ethiopia. In view of this, Ethiopian ministry of health formulated mental health strategic plan from 2012/13 to 2015/16. [15] However, there is scarcity of information, especially from high schools, which assist policy maker's efforts in reforming mental health care.

Common mental disorders make a significant contribution to the burden of disease and represent a psychiatric morbidity with significant prevalence, affecting individuals, families and communities in different age groups. [16] However, little is known about perception and attitude of the public regarding mental disorders. [17]

Researchers indicated that the impact of a mental health problem can be profound during adolescence and young adulthood in particular. During this stage of development, even a relatively mild mental health problem can cause social, emotional, or cognitive changes that in turn disrupt educational and vocational achievements that have a major effect on later adult life. [18]

The disability associated with mental illness in Ethiopia is high: where people are already struggling for survival, the catastrophic impact of a chronic and disabling illness on the person and their family can be well-appreciated. The lack of mental health services or any kind of financial support for families with a mentally ill member are the biggest factors causing caregiver burden in Ethiopia. [5]

Despite mental health problem was included in national health policy of Ethiopia, interventions against the problem are limited. The main reason is the lack of data on the extent of the problem. [19]

While these facts remain about common mental disorders and their contribution to the global burden of diseases, the attention given to mental health is very low across the globe. This is even more so in low-income countries like Ethiopia. [2]

1.1.3. Significance of the study

Enabling children to thrive is a goal held by many. In an effort to achieve this, it is important to understand the range of problems children and youth may face. Child and youth mental health problems are among the most important impacting on healthy child development, and have been identified by some to be the leading children's health problem today. [20]

As individual children are embedded in their environment, it is important to consider the impact of home, school, peer group and community contexts when attempting to understand child psychiatric problems. Child and youth mental health problems are important since they are common, are associated with broad impairment that does not necessarily disappear as children grow to adulthood, and have high costs to society. [10]

Children and youth who have mental health problems often have more than one disorder at the same time. Half of children and youth have co-morbid disorders [21]. Further, these children and youth have difficulties functioning socially, at school and in the community [22].

Therefore, it's very wise to determine the common mental health disorders and their associated risk factors early. In our setup, there are only few researches on common mental health disorders among children in spite of the magnitude of the problem.

My research will be an input for the policy makers (i.e. education and health stream), primary health care providers, respective schools, stakeholders working on brain and mental health problems and other researchers.

2. LITERATURE REVIEW

2.1.1. Mental disorders among adolescents

Mental illnesses are not restricted to any specific group of people, cultures, and regions that are found in people of all regions, all countries, and all societies. Mental illness is present at any point in time in the world. According to WHO [23] one-fifth of teenagers under the age of 18 years suffer from developmental, emotional or behavioral problems. One in eight has a mental disorder; among disadvantaged children, the rate is one in five.

In a study done among Indian high school students, a total of 190 students from grades 11 and 12 (mean age: 16.72years) from three government-aided and three private schools in Kolkata India were surveyed. Of the 190 students, nearly two-thirds (63.5%) of the students reported stress due to academic pressure – with no significant differences across gender, age, grade, and several other personal factors. And about two-thirds (66%) of the students reported feeling pressure from their parents for better academic performance. [24]

In the same study, about one-thirds (32.6%) of the students were symptomatic of psychiatric illness and 81.6% reported examination-related anxiety. [24]

A cross sectional research on prevalence and factors associated with depression among school going adolescents (age 13 - 18) Chandigarh, north India, showed that Two-fifth (40%) of adolescents had depressive disorders, 7.6 per cent major depressive disorders and 32.5 per cent other depressive disorders. In terms of severity, 29.7 per cent had mild depression, 15.5 per cent had moderate depression, 3.7 per cent had moderately severe depression and 1.1 per cent had severe depression. [25]

2.1.2. Magnitude of mental disorders among adolescents

There is a widening mental health treatment gap for children and adolescents in sub-Saharan Africa. The region has few economic or human resources dedicated to the mental health of children and young people. The World Health Organization's Mental Health Gap Action Plan and the push for mental health to be included in the Millennium Development Goals have raised

the profile of child mental health but comparatively few studies have estimated prevalence rates or assessed needs or tested interventions in African countries. In most countries there is no clear pathway to access treatment, especially in-patient facilities. [29]

Another research done on prevalence of mental and behavioral disorders among children in Butajira, Southern Ethiopia indicated that of the surveyed children 3.5% had at least one or more mental or behavioral disorders. The most frequent diagnoses were anxiety disorders (1.6%), attention deficit hyperactivity disorder (1.5%). Mood disorders (1%) and elimination disorders (0.8%) were relatively less common. [26]

2.2. Factors of mental disorders among adolescents

In the above mentioned cross sectional study done in India, significant associated factors included were being in a government school, studying in class 10th and 12th, rural locality, physical abuse by family members, alcohol use and smoking by father, lack of supportive environment in school, spending less time in studies, lower level of participation in cultural activities and having a boy/girlfriend. [25]

The research done in the Butajira, females were slightly more affected than their male counterparts, 4.0% and 3.1%, respectively.

3. OBJECTIVE OF THE STUDY

3.1.1. General objective

To determine the magnitude and factors associated with common mental disorders among high school students Gulele sub city

3.1.2. Specific objectives

To determine the magnitude of common mental disorders among high school students Gulele sub city.

To determine the factors associated with common mental disorders among high school students in Gulele sub city.

4. METHODS

4.1.1. Study area

Addis Ababa is the capital and largest city of Ethiopia. The City is the commercial and cultural hub of the country functioning as the seat of the African Union and the Ethiopian Federal Government. The city administration is divided into ten sub-cities: Addis Ketema, Akaki-Kality, Arada, Bole, Gulele, Kirkos, Kolife, Lideta, Nifas Silik-Lafto, and Yeka sub-cities.

Gulele sub-city is located on the northern part of the city administration with coordinates of 9°3'46.8"N 38°44'36.96"E and covers 30.18 km² (11.65 sq mi). As of 2011, its population was 248,865. It borders with the districts of Kolfe Keranio, Addis Ketema, Arada and Yeka. It has 10 woreda (the lowest geographical stratification) in it. [27]

There are six governmental and eight private high schools in the sub city. Of these, there are four private and two governmental preparatory schools (grades 11 and 12).

4.1.2. Study design

Institution based cross sectional study

4.1.3. Source population

All high school preparatory students in Gulele sub city

4.1.4. Study population

Randomly selected high school preparatory students of the selected high schools in Gulele Sub-city.

4.1.5. Eligibility criteria

4.1.5.1. Inclusion criteria

Present during the study time

Age group between 15 and 19 (inclusive)

4.1.5.2. Exclusion criteria

Living out of Addis Ababa

Unwilling to give assent for the study

4.1.6. Sample size determination

$$n = \frac{z_{\alpha/2}^2 p(1-p)}{d^2}$$

Where: n = sample size

Z = standard normal distribution corresponding to significance level at $\alpha = 0.05$

p = proportion of magnitude of mental disorder among high school students.

We could not find similar study. Therefore, we use p=0.05

$$n=384$$

We will use the following formula to adjust the sample size because the source population is <10,000 i.e. 8,166.

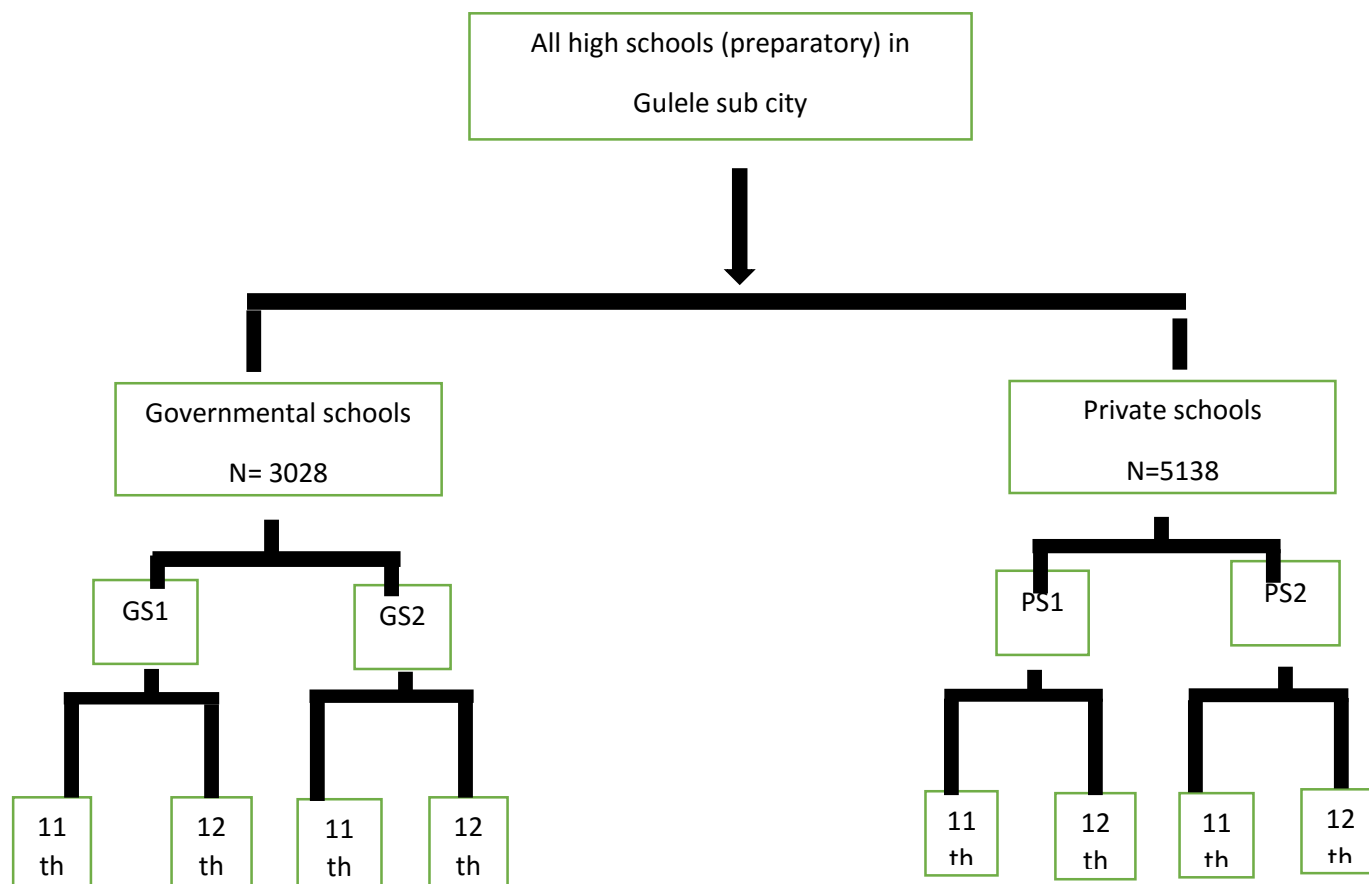
$$n = \frac{n_0}{1 + \frac{n_0}{N}}$$

$$n=367$$

Then, we make adjustments for the design effect because we will use the multi-stage sampling technique by multiplying 1.5. This gives 550. Finally, we add 10% non-response rate. The final sample size is 605.

4.1.7. Sampling technique

We will employ multi-stage sampling technique. First, the schools will be stratified in to governmental and private schools. Among the list of the governmental and private high schools, proportionally 2 governmental and 2 private schools will be randomly selected. From the selected high schools, students will be systematically selected from 11th and 12th grade.



4.1.8. Data collection tools

We will prepare a self-administered structured questionnaire in English by adapting it from the Global School-Based Student Health Survey (GSHS). The questionnaire will have socio-demographic variables, ten modules (on alcohol use; dietary behaviors; drug use; hygiene; mental health; physical activity; protective factors; sexual behaviors that contribute to HIV infection, other STIs, and unintended pregnancy; tobacco use; and violence and unintentional injury) and factors. In addition to the GSHS, we will use the SRQ-20 WHO's standard questionnaire. The questionnaire will be translated to Amharic language and back to English to check for consistency. The questionnaire was pre-tested prior to the actual data collection on 50 students of the respondents that were not included in the main survey.

We will recruit two final year medical students as data collectors and train them for two afternoons on the objective of the study, the data collection, data quality and the whole process of the field work. The research team will orient the study participants on the study tool after school time is completed and the questionnaires will be administered by the students at the school.

4.2. Study variables

4.2.1. Independent variable

1. Demographic factors (age, sex, marital status, residency)
2. Socioeconomic status (personal income, family income)
3. Educational level (grade level, average score)
4. Substance use (khat, cigarette, alcohol, hashish)

4.2.2. Dependent variables

Mental disorders

4.3. Operational definitions

Mental health disorder: In this study, students who were found to have 11 or more symptoms of the 20 SRQ₂₀ questions in the last 4 weeks are considered as having mental distress. [28]

School: School is an institution (both private and public) designed to provide learning spaces and learning environments for the teaching of students under the direction of teachers.

Student's performance: It will be measured using final Cumulative GPA (average score) of students at the end of their previous academic years (as it will be reported by the students). It is to get clue whether students without mental distress achieved more compared to students with mental distress.

Substance Use: Current users: when students use specified substance as Khat, Cigarette, Alcohol, or hashish (for non-medical purposes) in the last year.

Ever users: when students use specified substance (for non-medical purposes) even once in their life time.

4.4. Data processing and quality assurance

To ensure data quality, the research assistants and data collectors will get training. Supervisors will check the completeness, consistency and appropriateness of the collected data every day and will be completed or corrected according to the identified problems.

Pre-coded and identified data will be entered into SPSS. Data cleaning, organizing, transforming and summarizing will be done once the data are entered into SPSS.

4.5. Data analysis

The collected data from the pre-coded questionnaires will be centered, cleaned, summarized and analyzed using SPSS 22 version software. Descriptive statistics will be used to summarize some key variables (including socio-demographic) by calculating percentages, mean, median, mode, standard deviation, quartiles and range. Bivariate analysis will be done using cross tabulations, X^2 test and binary logistic regression to look for associations between a single independent variable and the dependent variable (mental disorder).

To control confounders and determine the factors associated with mental disorders, binary logistic regression will be run by fitting a model using independent variables with $p\text{-values} \leq 0.25$ on the bivariate analysis. The final multivariable analysis outputs with $p\text{-values} < 0.05$ will be considered statistically significant. Odds ratios with 95% confidence interval will be used to quantify the magnitude of association between independent variables and the dependent variable. Findings will be presented in text, table, and figure as appropriate.

5. ETHICAL CLEARANCE

The proposal will be submitted to St. Paul's Hospital Millennium Medical College (SPHMMC) Institutional Review Board (IRB) for ethical clearance. Having secured the ethical clearance, the IRB approval and SPHMMC's support letters will be submitted to Addis Ababa City Administration Education Bureau (AACAEB). The AACAEB will write an official permission and support letter to Gulele sub-city education office and high schools. The data collection be started after official permission is secured from the respective schools.

During the data collection, the parents of the children will be informed about the purpose of the study, benefits of the study, why the children are chosen, the processes of the study, their right to refuse the participation of the children from the outset or else if they do need to withdraw during the process, the confidentiality of the information and anonymous questionnaire filling. We will also inform the parents that there will be no penalty or denial of services for not participating in the study. Then after, the parents will be requested for informed permission to let the child participate in the study.

For the students, we shall request informed voluntary assent without any pressure from the study team or their parents after explaining the purpose, processes, potential risks, and potential benefits of the study as well as their right to refuse to participate in the study or to withdraw at any time during the processes of the study. The children will be given opportunity to ask any question and to keep the contact information of the principal investigator if they would like to ask any question or further information related with the study.

6. DISSEMINATION OF FINDING

Once the research is concluded, it will be presented to St. Paul's Hospital Millennium Medical College (SPHMMC) community and the final report will be submitted to SPHMMC Department of Public Health and Addis Ababa City Administration Education Bureau. It will also be presented in international and local relevant events as oral or poster presentation. It will also be sent to peer-reviewed journals for publication.

7. BUDGET BREAKDOWN

Sr. #	Item/Activity	Unit	Quantity	Unit Price	Total	Remark
1	Personnel					
1.1	Data Collector	Number	2	500	1000	
1.2	Supervisor	Number	1	750	750	
1.3	Research Assistant	Number	1	1000	1000	
1.4	Data Entry Clerk	Number	2	1500	3000	
1.5	Training	Event		500	500	
	Sub-total				5350	
2	Materials (Stationery, supplies and Other, if any)					
2.1	Paper	Ream	5	120	600	
2.2	Note Book	Dozen	1	100	100	
2.3	Pen	Number	30	5	150	
2.4	Pencil	Number	30	2.50	75	
2.5	Printing	Pages	7	1	7	
2.6	Photocopying	Pages	4235	0.75	3176.25	
2.7	Binding	Number	2	15	30	
2.8	CD	Number	2	10	20	
2.9	Flash Disc	Number	1	250	250	
	Sub-total				4450.25	
3	Communication and Transportation					
3.1	Internet	Users	2	200	400	
3.2	Mobile Card	Users	6	100	600	
3.3	Transportation	Users	6	250	1500	
	Sub-total				2500	
	Contingency (10% of sum of sub-totals 1, 2 & 3)					
	<u>Total</u>				12, 423.25	

8. TIME-TABLE OF THE STUDY

Activity	Responsible Party	Month/Week																												Remark				
		Dec-17				Jan-18				Feb-18				Mar-18				Apr-18				May-18				Jun-18					Jul-18			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Research Title Selection and Approval	PI* and DPH**																																	
(.... - 22 Novemeber 2017)																																		
Proposal Write up and Submission	PI and Advisor																																	
(08 January - 05 February 2018)																																		
Proposal Approval and Ethical Clearance	DPH and IRB***																																	
(06 - 19 February 2018)																																		
Pretesting and refining Study Tools	PI																																	
(20 February - 04 March 2018)																																		
Data Collection	PI																																	
(05 March - 07 May 2018)																																		
Data Analysis and Report Write up	PI and Advisor																																	
(08 May - 18 June 2018)																																		
First Draft Research Report Submission	PI																																	
(18 June 2018)																																		
Review, Feedback & Finalization of Research Report	Advisor and PI																																	
(18 June - 15 July 2018)																																		
Final Research Report Submission	PI																																	
(16 July 2018)																																		
Research Report Evaluation by Examiners	Examiner																																	
(17 - 24 July 2018)																																		
Research Public Defense	PI																																	
(25 - 27 July 2018)																																		
Final Paper Submission After Defense	PI																																	
(30 July 2018)																																		

*PI = Prinicipal Investigator

**DPH = Department of Public Health

***IRB = Institutional Review Board

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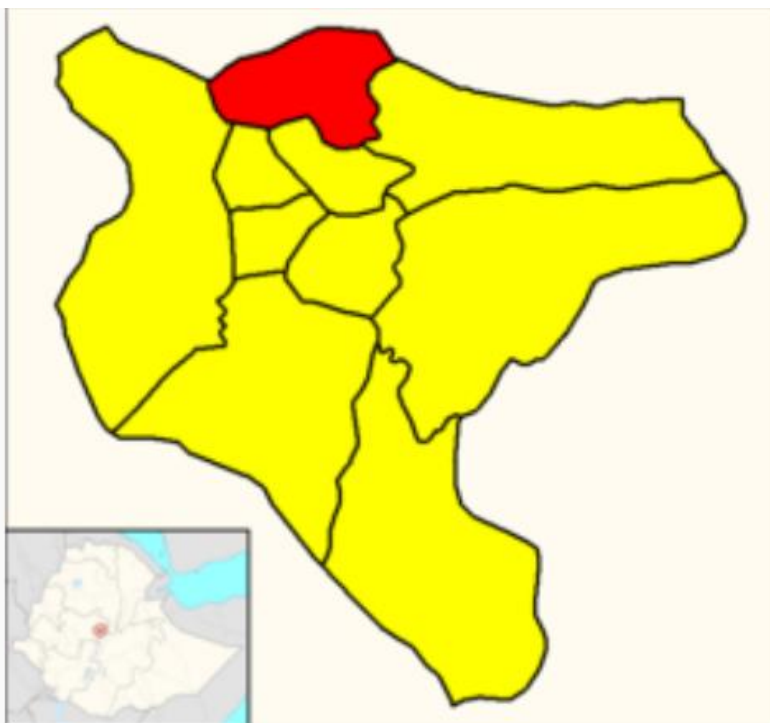
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ANNEX I: LOCATION OF GULELE SUB CITY



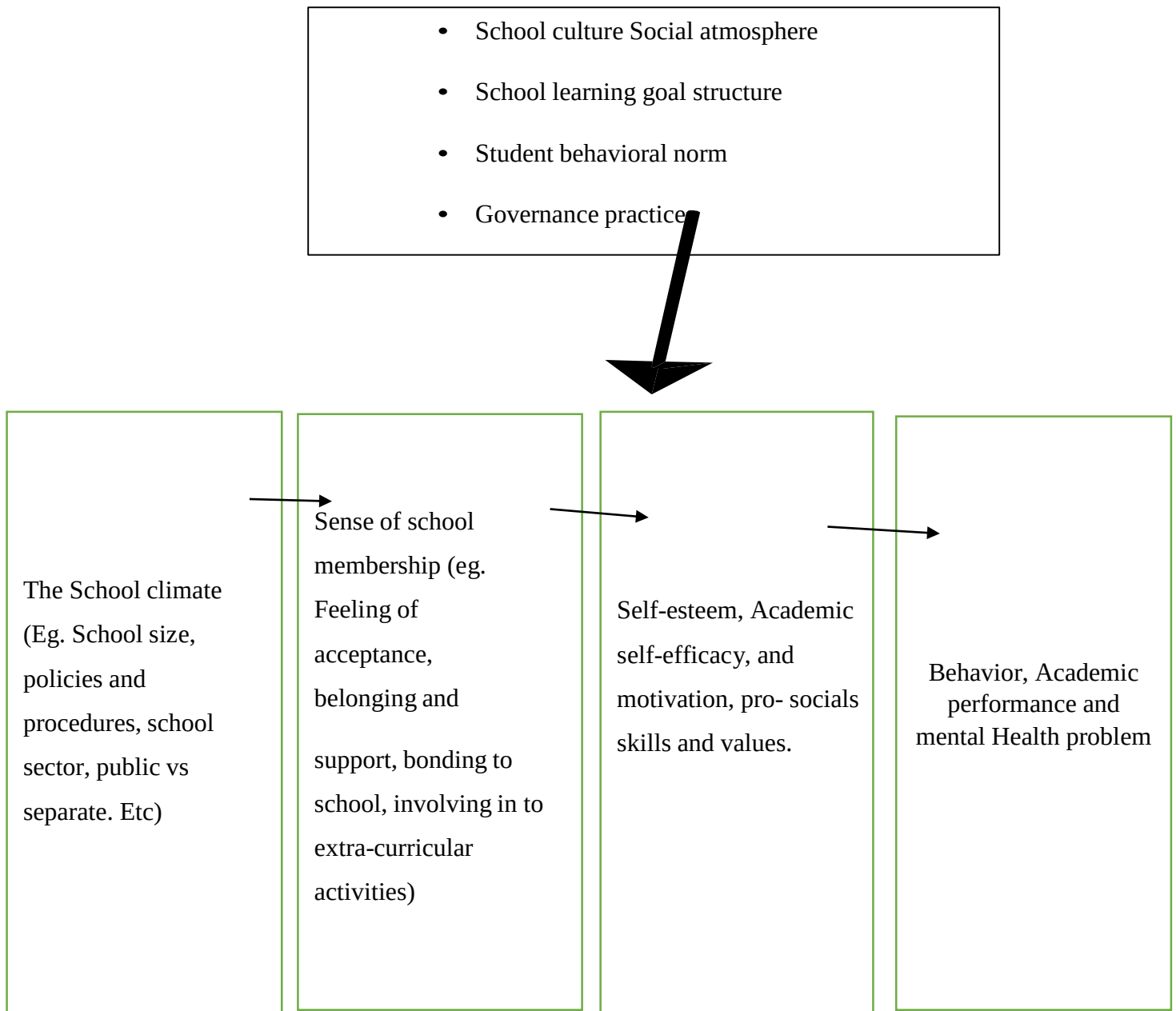
Location in Ethiopia

Coordinates: $9^{\circ}3'46.8''\text{N}$ $38^{\circ}44'36.96''\text{E}$



Gullele (red) within Addis Ababa

ANNEX II: CONCEPTUAL FRAMEWORK FOR SCHOOLS AS COMMUNITIES THEORETICAL FRAME WORK FOR MENTAL HEALTH PROBLEMS



ANNEX III: DATA COLLECTION QUESTIONNAIRE (ENGLISH VERSION)

Students self-reporting questionnaire: to be filled by high-school students

Dear students; my name is Dr. Mitiku Getu Moges, a newly graduating doctor from St. Paul's Hospital Millennium Medical College. And I am doing my thesis on prevalence and factors associated with common mental disorders among high-school students.

In the case of mental health promotion of the young educated people to understand the existing prevalence (magnitude) of some common mental distress in high schools, it is found or to be evidence based. In line with this, a study is proposed to assess the prevalence, determinants and other socio economic factors which contribute for mental distress and you are chosen to participate in this study. The choice is made randomly using a lottery method. The questions include various private and personal lives.

In order to attain the goal effectively, we request your willful cooperation. Here under are the questionnaires you to complete. There is no need of writing your name or ID number on the format. Confidentiality is strictly protected. It is your right to participate or to refuse in the study. If you do not want to participate in the study, you can put the format in the table upside down. But your honest participation will have contribution to generate valid information that can be used for intervention designs. So please take these questions to answer. If there is anything that require clarification, please don't hesitate to ask the facilitators for clarification. Do you wish to participate in the study?

Yes, I want to participate. { }

No, I don't want to participate. { }

Thank you very much!

Questionnaire to be answered by High School students

To make this study each question should be answered carefully. Your answer will be kept confidentially. No need of mentioning your name on the questionnaire. Be sure for your reading instructions correctly before giving answers for each question.

This questionnaire is not examination. There is no right or wrong answer. But make sure that you have read each question carefully, and give the answer you think correct for yourself by circling the number of your choices

Part One Demographic Data: After reading the following ten questions which asks about demographic characteristics, give appropriate answer concerning your demographic information.

No.	Questions	Coding categories	Code
Q101	How old are you?	Age in complete years_____	
Q102	Sex	Male Female	1 2
Q103	What's the level of your grade?	11 th grade 12 th grade	1 2
Q104	What is your religion?	Orthodox Muslim Protestant Catholic Others I have no religion	1 2 3 4 5 6
Q105	What is your marital status?	Single Married and living together	1 2

		Married but not living together	3
		Divorced widowed	4
		Others	5
Q106	What is your ethnicity?	Oromo	1
		Amhara	2
		Tigre	3
		Gurage	4
		Others	5
Q107	Where is your current family place of residence?	Rural	1
		Urban	2
Q108	What is your personal monthly income?	No income	1
		Less than 100 birr	2
		100 to 299 birr	3
		300 to 499 birr	4
		500 birr and above	5
Q109	What is your average score?	11 th grade) _____	
		12 th grade_____	
		10 th gradenational exam result _____	

Part TWO The Self-Reporting Questionnaire (SRQF)

The following questions are related to certain pains and problems that may have bothered you in the last **30 days**. If you think the question applies to you and you had the described problem in the last **30 days**, answer YES.

On the other hand, if the question does not apply to you and you did not have the problem in the last **30 days**, answer **NO**.

If you are unsure about answering a question, please give the best answer you can.

We would like to reassure you that the answers you are going to provide here are confidential.

No	Encountered health problems within the last 4 weeks	Yes	No
Q201	Do you often have headaches?	1	2
Q202	Is your appetite poor?	1	2
Q203	Do you sleep badly?	1	2
Q204	Are you easily frightened?	1	2
Q205	Do your hands shake?	1	2
Q206	Do you feel nervous, tense, or worried?	1	2
Q207	Is your digestion poor?	1	2
Q208	Do you have trouble thinking clearly?	1	2
Q209	Do you feel unhappy?	1	2
Q210	Do you cry more than usual?	1	2
Q211	Do you find it difficult to enjoy your daily activities?	1	2
Q212	Do you find it difficult to make decisions?	1	2
Q213	Is your daily working suffering?	1	2
Q214	Are you unable to play a useful part in life?	1	2
Q215	Have you lost interest in things?	1	2
Q216	Do you feel that you are a worthless person?	1	2
Q217	Has the thought of ending your life been on your mind?	1	2
Q218	Do you feel tired all the time?	1	2
Q219	Do you have uncomfortable feelings in your stomach?	1	2
Q220	Are you easily tired?	1	2
Q221	Do you feel that someone has been trying to harm you in some way?	1	2
Q222	Have you noticed any interference or anything else unusual with your thinking?	1	2
Q223	Do you ever hear voices without knowing where they come from, and that other people can't hear?	1	2
Q224	Do you easily get angry at other people?	1	2
Q225	Do you feel that someone has insulted or humiliated you?	1	2
Q226	Do you feel that someone has cursed you?	1	2

Q227	Do you feel that someone is jealous of you?	1	2
Q228	Do you feel crawling sensations under your skin?	1	2
Q229	Do you feel burning sensations in your scalp or all over the body?	1	2
Q230	Do you often feel your heart is beating too fast?	1	2

PART THREE SUBSTANCE USE (ABUSE)

The following questions focuses on Khat chewing practices, Alcohol drinking, Cigarette smoking other substances like Hashish use and sedatives use, so you are requested to give answers about your personal behavior on the abuse of these substances

No	Questions	Yes	No
	1. The following three questions are specific to Khat chewing practices in particular		
301	Have you ever used Khat in your life?	1	2
302	Have you used Khat in the last 12 months?	1	2
303	What was your reason(s) to use Khat?	1	2
	A To increase work or academic performance	1	2
	B To get relief from tension	1	2
	C To combat against exhaustion and hunger	1	2
	D Due to academic dissatisfaction	1	2
	E Due to religious practices	1	2
	F To get acceptance from others / to be like others/	1	2
	G To be sociable	1	2
	H To get personal pleasure	1	2
	I To increase pleasure during sexual intercourse	1	2
	J Due to peer influence	1	2
	K Specify if any other	1	2

No	Questions	Yes	No
2. The following three questions are specific to Alcohol drinking habits practices in particular			
304	Have you ever used alcohol drinks in your life; such as Areke, Tela, Tej (local liquors), beer, and other alcohol drinks?	1	2
305	Have you used Alcohol drinks in the last 12 months?	1	2
306	What was your reason(s) to use Alcohol?	1	2
	A To increase work or academic performance	1	2
	B To get relief from tension	1	2
	C To combat against exhaustion and hunger	1	2
	D Due to academic dissatisfaction	1	2
	E Due to religious practices	1	2
	F To get acceptance from others / to be like others/	1	2
	G To be sociable	1	2
	H To get personal pleasure	1	2
	I To increase pleasure during sexual intercourse	1	2
	J Due to peer influence	1	2
	K Specify if any other	1	2

No	Questions	Yes	No
3. The following three questions are specific to Cigarette and other Tobacco products use (habits of practices)			
307	Have you ever used Tobacco products such as Cigarette, wrapped tobacco, leaf pipe, and chewable tobacco products (by smoking, chewing, sniffing) in your life?	1	2
308	Have you used any kind of tobacco product in the last 12 months? (by smoking, chewing, sniffing)	1	2
309	What was your reason(s) to use tobacco products?	1	2

	A	To increase work or academic performance	1	2
	B	To get relief from tension	1	2
	C	To combat against exhaustion and hunger	1	2
	D	Due to academic dissatisfaction	1	2
	E	Due to religious practices	1	2
	F	To get acceptance from others / to be like others/	1	2
	G	To be sociable	1	2
	H	To get personal pleasure	1	2
	I	To increase pleasure during sexual intercourse	1	2
	J	Due to peer influence	1	2
	K	Specify if any other	1	2

No	Questions	Yes	No
	4. The following three questions are specific to Hashish, Cannabis, Ganja, and or Heroin use in particular		
310	Have you ever used Hashish, Cannabis, Ganja, and or Heroin in your life?	1	2
311	Have you used Hashish, Cannabis, Ganja, and or Heroin in the last 12 months?	1	2
312	What was your reason(s) to use Hashish, Cannabis, Ganja, and or Heroin?	1	2
	A To increase work or academic performance	1	2
	B To get relief from tension	1	2
	C To combat against exhaustion and hunger	1	2
	D Due to academic dissatisfaction	1	2
	E Due to religious practices	1	2
	F To get acceptance from others / to be like others/	1	2
	G To be sociable	1	2
	H To get personal pleasure	1	2
	I To increase pleasure during sexual intercourse	1	2
	J Due to peer influence	1	2
	K Specify if any other	1	2

Annex iv: ASSURANCE OF INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the research Project and for provision of required progress reports as per terms and conditions of the Research and Publication Directorate or /and Department of Public Health of St Paul's Hospital Millennium Medical College.

Name of student: _____

Date: _____

Signature: _____

Approval of advisor(s).

Name of advisors:	Signature	Date
1. _____	_____	_____
2. _____	_____	_____