

**PREVALENCE AND ASSOCIATED FACTORS OF EMOTIONAL AND BEHAVIORAL PROBLEMS AMONG ADOLESCENTS, IN PUBLIC SCHOOLS OF SAMARA LOGIA TOWN, AFAR REGIONAL STATE, NORTHEAST ETHIOPIA**



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**Prevalence and Associated Factors of Emotional and Behavioral Problems  
among Adolescents, in public schools of Samara Logia town, Afar Regional  
State, Northeast Ethiopia**

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## **ABSTRACT**

**Introduction:** Adolescents between 10 and 19 years of age are the stage of transition from immaturity of childhood to the maturity of adulthood. During this transition, physical, psychological, and behavioral change takes place. Evidences shows, emotional and behavioral problem (EBPs) during this stage is higher due to different stressors. However, such data is little in low and middle income countries like Ethiopia.

**Objective:** To assess the prevalence and associated factors of emotional and behavioral problems among adolescents in public schools of Samara Logia town, Afar Regional State, Northeast Ethiopia in 2019.

**Methods:** Institution based cross-sectional study was conducted by screening 622 adolescents using validated Strengths and Difficulties Questionnaire (SDQ) self-reported version. Multistage sampling was used to select study participants. Data analysis was done using SPSS version 21. Bivariable and multivariable logistic regression analysis were carried out to identify associated factors of EBPs. Odds ratio (OR) and its 95% CI was used to report strength of association between exposure and outcome variables. Level of significance was determined at  $p$ -value  $<0.05$ .

**Results:** In this study, 346 (55.6%) males and 276 (44.4%) females were participated. The mean age of participants was 15.5 years (SD=1.8). The prevalence of emotional and behavioral problem was 328 (52.7%). Conduct problem, 260 (41.8%) was the leading problem followed by peer relation problem 236 (37.9%), emotional problem 88 (14.1%), hyperactivity 64 (10.3%) and prosocial problem 74 (11.9 %). Quarreling relationship between mothers and fathers/guardians (AOR=2.24, 95% CI= 1.19, 4.20), being not satisfied with parental/guardians care (AOR =1.96, 95% CI = 1.07, 3.56), low parental/guardians expectation (AOR=3.01, 95% CI = 1.51, 5.98) and using substance at least once in their life (AOR= 1.75, 95% CI =1.14, 2.70), were statistically significantly associated factors with emotional and behavioral problems.

**Conclusion:** Prevalence of emotional and behavioral problems among adolescents is high. Quarreling relationship between parent/guardians, not satisfied with parental or guardian care, low parental/ guardian expectation and substance use were potential factors of EBPs.

**Recommendation:** EBPs needs due attention of parents and teachers, mental health professionals, and other concerned bodies to initiate family focused psychosocial interventions.

**Key words:** Emotional, behavioral, problems, factors, adolescents, Ethiopia.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

CAMH	Child adolescents' mental health
CD	Conduct disorder
CI	Confidence interval
EBP	Emotional Behavioral Problem
ETB	Ethiopian Birr
FMOH	Federal Ministry of Health
ICCMH	Integrated Clinical and Community Mental Health
IRB	Intuitional Review Board
JU	Jimma university
LMIC	Low Middle Income Country
MhGAP	Mental Health Gap
MHS	Mental Health Status
NGO	Non Governmental Organization
SD	Standard Deviation
SDQ	Strengths Difficulties Questionnaire
UK	United Kingdom
WHO	World Health Organization

# CHAPTER 1: INTRODUCTION

## 1.1. Background

Adolescence, generally defined as the period between 10 and 19 years of age (1). It is the stage of transitional period from immaturity of childhood into the maturity of adulthood. According to experts explanation, there is no single boundary showed the end of childhood or the beginning of adolescence. This stage of adolescence composed a set of transitions in biological, cognitive and social relations. These change in physical, psychological and behavioral can be confused time for them (2). As a result of this confusion period, some adolescence prone for different several lifestyle habits that could play an influential role in their future. Like health compromising behavior; smoking, alcohol uses as well as health enhancing behaviors like physical exercise. They have also a strong tendency to test new things with risk behavior, desire for novelty and independency, which is greater in adolescence than in later stage (3).

As a cross-sectional study conducted in India showed, the most commonly noticed behaviors in adolescents including playing video games, watching TV, fighting with others (93%), drinking alcohol, smoking, and late sleeping (77.5%) (4). Adolescents are special population groups which require health concern due to their stages of emotional, social and sexual change. On this stage of change they may be more stressed which can result in depression, anxiety, socially withdrawal, aggression, poor coping skills and actual physical illness (5). The physical, psychological, and behavioral changes taking place during adolescence contribute to mental health related problems. This problems emerged in late childhood and early adolescence may continue into adulthood (1). As the study showed half of all lifetime mental health related problems start by age 14 (6).

Now a day, several study showed that, young productive generations/adolescents are affected more by emotional and behavioral problems which are parts of mental health related problems. Study conducted in Netherland Amsterdam School used SDQ assessment tool showed that, one out of ten adolescents had abnormal score on the total difficulties scale. More than 7% of adolescents had emotional problems, 13.2% had conduct problems, 18.7% hyperactivity/inattention, and 12.0% peer-relationship problems. The mean score on the total difficulties scale of SDQ was 9. The mean scores on the subscales were, 2.1 for emotional problems, 1.9 for

conduct problems, 3.4 for hyperactivity/inattention and 1.6 for peer-relationship problems (7). In addition, the study conducted in Turkey among adolescents (15–18) year old used SDQ tool showed, 58.6% of the adolescents were normal. However, 24.5% were in borderline and 16.9% were in abnormal emotional and behavioral problems (8). Study done in Mongolia used SDQ questionnaires showed, 10% adolescents had emotional problem; 10.2% had conduct, 18.8% hyperactivity and 14.6% interpersonal relationships problems. Moreover, 16.3% of adolescents had abnormal emotional and behavioral problems (9).

Similarly, studies from 6 different sub-Saharan Africa including Ethiopia, in 3 different populations (a primary school, a reform school, and an outpatient clinic) assessed the general psychopathology of children. As the result showed, children and adolescent's mental health problem is common. The total adjusted magnitude of the general psychopathology was 14.5%. It also reported that, psychological (emotional and behavioral) difficulties in the review is varied across the studies (2.7%- 27.0%) (10). In addition, cross sectional study in Kenya among adolescents showed, the mean total difficulty of EBPs ranged from 5 to 28 % (11).

Study on Global African and Ethiopian perspective in 2017 showed, average prevalence of children mental disorders in Ethiopia was 15% (12). Even though, some studies showed prevalence of emotional and behavioral problem in children and adolescents in common, how much is the problem in adolescent age group is not well studied. Recognizing and addressing mental health needs of young people help them function better socially, academically, vocationally and develop into well-adjusted productive adults. In resource constrained countries, addressing adolescent's mental health to improve and expand evidence base intervention is mandatory. The evidence is required not only to inform policy makers but also, to generate public awareness on adolescents mental health issues to mobilize social support (1).

Emotional and behavioral problems (EBPs) during childhood and adolescence are issue of parents and mental health stakeholders, due to numerous problematic outcomes in adulthood (13). It has also implications in school attending, social relations, risk behaviors and substance use which may persist into adulthood (7). Knowing this problems helps for early intervention and prevention which gives hope to improve personal wellbeing and productivities (14).

## **1.2. Statement of the problem**

Mental health problems affects 10–20% of children and adolescents worldwide and account higher global burden of disease (14). Many mental health problems first emerge in late childhood and early adolescence and may continue into adulthood (1). Half of all lifetime mental health related problems start in this age (10). Biological, cognitive, social and emotional changes during adolescence might contribute different mental health problems (2). Good mental health for Adolescents is important to maintain optimal psychosocial functioning and well-being such as, having sense of identity and self-worth, good family and peer relationships, to be productive, for effective learning and to tackle developmental challenges using cultural resources to maximize growth. In contrast, adolescents with EBPs have difficulties to carryout important life domains and decreased productivity. So, EBPs during adolescence are a common concern for parents, mental health stakeholders and governments as they predict numerous problematic outcomes in adulthood, like difficulties in family functioning, education, mental health, and employment (13,15).

Several previous studies showed that, emotional and behavioral problems affect those adolescents and had negative impact on developments. Study conducted in Egyptian school adolescents (13-17 years old) showed, 18.5% of adolescents had abnormal behaviors (16). Other study among Kenyan adolescents showed, the mean total of difficulties ranged from 5 to 28 (SD  $\pm$  4.7) (11). Survey study in Belgian and other reports from Australia showed that, girls are more prone for anxiety and depression. Whereas, hyperactivity, substance use, and interpersonal violence were more observable in boys than girls (17,18).

In Ethiopia, as mhGAP working group reports to federal ministry of health (FMOH) in 2010, magnitude of childhood mental health related problems was 12-25 % (19). Even though, some study showed prevalence of emotional and behavioral problems in children, information on the extent of emotional and behavioral problems is, limited (20). Moreover, the magnitude of problems in adolescent age groups is not separately studied. Unless, EBPs among adolescents studded and intervene earlier, it results significant negative impacts on mental health, poor academic outcome, occupational performance and psychosocial functions which also affects families, societies and country's development (21).

Understanding prevalence and associated factors of EBPs among adolescents could help for timely intervention in this segment of populations. Early intervention increases preventions of later adulthood mental health problems and improve personal wellbeing as well as productivities (14). The present study identified prevalence and associated factors of emotional and behavioral problems among adolescents, in public schools of Samara Logia town, Afar Regional State, Northeast Ethiopia.

### **1.3. Significance of the study**

Information on adolescents' emotional and behavioral problem and associated factors is critical for the improvement of service provision. It is expected that, the findings of this study could help policy makers, ministry of health, ministry of education, Afar regional state health and education bureau, and zonal health and education offices as part of the evidence to come up with better strategies for improving adolescent's mental health conditions. Additionally, nongovernmental organizations with special interest on adolescents' mental health may also find it useful as guidance for planning and intervention on the area. Furthermore, mental health professionals, parents, and teachers could benefit from the result of this study such that they would give due attention to adolescent's unusual behaviors. In addition, the findings will help to understand EPBs in adolescents so that they will try to solve any problem smoothly and encourage adolescents on their good activities. Moreover, this study will provide baseline information and directions for further researchers.

## CHAPTER 2: LITERATURE REVIEW

### 2.1. General mental health problem

Mental health problem is common among children throughout the world. As WHO estimated that, 20% or one fifth of children worldwide suffer from mental and behavioral disorders. From these most of them are adolescents between the ages of 10-19 (9). The problem affects 10-20% of children and adolescents worldwide and account for a large portion of the global burden of disease (14). Moreover, epidemiological studies showed 13-25% of adolescents will meet the criteria for a mental disorder during their lifetime (9).

A cross-sectional study conducted in Netherland Amsterdam School using SDQ assessment tool showed, one out of ten adolescents had an abnormal score on the total difficulties scale. In that study, the mean score on the total difficulties scale was 9 (7). Similarly, the study conducted in Turkey among adolescent (15–18 ) year old used SDQ tool showed, 24.5% (n=343) of adolescents had borderline and 16.9% had abnormal mental status (8). Another cross sectional study conduct in Chinese school adolescents reported that, the mean score of EBP was 11.28 (SD  $\pm 5.86$ ) (22). Moreover, a cross-sectional study conducted in Nepal among adolescent students (n=330) with age ranged from 11-18 years showed that, the prevalence of EBPs was 30.0% (23). This shows, EBPs is affecting young generations and be cause for lower effectiveness in their futures.

The study conducted in India, among in institutionalized street children attending school between 11 to 18 years using descriptive research design and Rutters Childrens' Behaviour Questionnaire (RCBQ) showed, the prevalence of emotional and behavioral was 56% (n=28) (24). In addition, a comparative study was conducted among adolescents; (n=308) aged 11-17 years from private schools; living in stable and persistent political violence area. From them, about 42% (n=65) of students who live in politically unstable area had EBPs compared with students living in stable area 17.5% (25).

Addressing mental health problems in early developmental stages in low middle income countries is a priority for the global health agenda. Beside the arguments of how societal costs

can be reduced by early intervention, there is also an ethical responsibility to the most vulnerable young people (14). From 90% of children and adolescents live in LMICs, yet only 10% of all child and adolescent mental health (CAMH) research has been conducted (14). From this, the study in Mongolia showed, 16.3% (n=1959) of adolescents have emotional and behavioral problem as confirmed by the total scores in self-report version of SDQ tool. Moreover, 43.3% (n=1959) from their parents and 33.4% (n=72) reported from their teachers. In that study, it is confirmed that adolescent's age, gender, family environment and living areas were influenced their emotional and behavioral well-being (9).

Despite increasing efforts of achieving a global view of adolescent mental health, very little is known about mental health of youth living in African (13). In addition to limited mental health services in LMICs, there is also a lack of contextually relevant, mental health research in many of these geographical areas (14). Due to inadequate and low quality of mental health, poor infrastructures, inequalities of people with mental illness and nations (26). Additionally, financial and systemic challenges made mental illness to become epidemic throughout Africa. For example, Infrastructures, socioeconomic conditions and psychosocial relations including low priority and poor health infrastructure, insufficient number of trained specialists, lack of funding, poor legal protection, stigma, human right abuses, and economic vulnerability (12).

In sub Saharan Africa Meta analysis study was conducted in a primary school, a reform school, and an outpatient clinic among children aged up to 16 years. In that study, six countries including Ethiopia, Nigeria, Kenya, South Africa, Uganda, and Democratic Republic of Congo were included. The finding from that report stated that, the magnitude of general psychopathology were (19.8%; 95% CI, 18.8%-20.7%). The study also concluded that, one out of seven children and adolescents had noticeable difficulties and may be due to socio demographic condition that children and adolescents placed (27). Similarly, the study conducted in Egyptian school adolescents (13-17 year old) used SDQ assessment tool showed, 18.5% (n=476) of students had abnormal behavior. The highest proportion of abnormal behavior was emotional problems followed by conduct problems, hyperactivity and lastly peer relations. 15.7% of students had emotional or behavioral difficulties and 13.7% of them had problem in total difficulty score (16). In additions, the study in Kenyan adolescents showed, the mean total difficulty scores of the SDQ ranged from 5 to 28 ( $M=15.8 \pm 4.7$ ) (11). In the same way, study in Nigeria stated



about, 20% (n=630) of respondents had negative MHS on the overall difficulty scales. Of them, the mean age of respondents were 14.1 years (SD  $\pm$  1.9) and 61.4% of respondents were  $\geq$ 14 years and 59.2% were female (28).

As the study stated that, around 50% all lifetime cases of mental illness (EBPs) start by age 14 years and median age of onset is much earlier for anxiety and impulse-control was in 11 years old (6). Adolescence is an important period in the life of a children (9). It is a transitional stage of physical and mental health development to adulthood. Health status of adolescents in this transitional stage has its own significant impacts on latter life (22). Adolescents with good mental health are able to sustain optimal psychological and social well-being. They have a common sense of identity and self-worth, capacity of using cultural resources, ability to maintain family and peers relationship, productive and tackling developmental challenges to maximize growth.

Moreover, health adolescents are crucial for active social and economic participation (29). Most of preventive interventions carried out in LMICs targeted on, the overall child development rather than child mental health. However, increasing evidence showed, some of these early interventions can benefit the mental health of children both parallel for long terms (14). In Ethiopia, Hospitals based cross-sectional study was conducted in West Gojjam zone, among children and adolescents (5-14 years of old) on highly active anti-retroviral therapy using Pediatric Symptomatology Checklist (PSCL) and Self Reporting Questionnaire (SRQ-20).The result showed, prevalence of EBPs among those affected subjects was 43.6 % (95% CI =38.8–48.4 ) (n=411) (30). However, statistics show that a mental illness is not taken into account as a major health priority. It is under the score of public needs in health programs targeting mental illnesses (12).

## **2.2. Emotional and behavioral problems**

### **2.2.1. Emotional problems**

Emotional problems among adolescents were studied in different parts of the world. From those, the study in Netherland Amsterdam School showed, more than 7% of adolescent had abnormal scores on emotional problems (7). The study among Turkish adolescents aged (15-18 years old)

reported that the mean score of emotional problems was 3.39 (SD  $\pm$  2.21) (8). Other study among Mongolian adolescents using SDQ questionnaires showed, 10.% of them had emotional problems (9). Furthermore, in African, similar studies were conducted to assess emotional problem among adolescents. From those, the Study in Nigerian adolescents at secondary school showed, 19.3% had emotional problems (28). Moreover, other study in Egyptian school adolescents (13-17 year old) using SDQ assessment tool showed; the highest proportion of abnormal behavior was emotional problems about 15.7% (16). The study among Kenyan adolescent Nairobi city showed, the mean of emotional symptoms was 3.5 (SD  $\pm$  2.4) (11).

### **2.2.2. Conduct problems**

Children and adolescents might have persistent and repetitive behaviors before the age of 18 years. Due to this behavior, they violate major age-appropriate norms and basic rights of others (31). To investigate these types of problem, studies were conducted in different parts of the world. Study on the global coverage of child and adolescent mental health problem states that, the mean magnitude of conduct disorder was 5%. Simultaneously, the study stated in LMICs were poorly representative for the available data (32). On the other hand, study conducted in Netherland Amsterdam School showed, 13.5% (n=6884) of adolescents had conduct problems (7). In the same way, study in Mongolia using SDQ questionnaires showed, 10.2% of adolescents had conduct problem (9). Cross-sectional study conducted in Saudi Arabia among diabetic adolescents showed, magnitude of abnormal conduct disorder was 30% (n=120) (33).

Moreover, the study in Nigerian adolescents at secondary school showed, 17.2% (n=630) had conduct problems (28). Even though, the data in magnitude were not explained, the study among Egyptian adolescents stated that, conduct problem is the second leading problems among adolescents (16). Similarly, the study among Kenyan adolescents showed, the mean conduct problem was 3.0 (SD  $\pm$  1.9) (11).

### **2.2.3. Peer-relation**

In the peer-relation, the problem occurs when adolescents are unable to establish or maintained relationship with the same age groups (7,9,34). To identify such problem study conducted in Netherland showed, 12.0% of adolescents have peer-relationship problems. And the mean score

was 1.6 (7). Additionally, the study in Mongolia uses the SDQ assessment tool showed, 14.6% of adolescents have difficulties interpersonal relationships (9). Comparable study were done in Saudi Arabia to assess the magnitude of emotional and behavioral disorders among children aged 4-17 years showed that, 20% of children (n=1236) had difficulties in relationship with peers (34). Moreover, from Africa the study among Nigerian adolescents shows, 39.1% (n=630) of them had problems with peers (28). Moreover, the study among Kenyan adolescents showed, the mean peer problems were 4.3 (SD  $\pm$  1.4) (11).

#### **2.2.4. Hyperactivity/inattentive**

Hyperactivity is a common childhood-onset behavioral problems; which is predominantly inattentive, hyperactive or/and impulsive (35). Different studies were conducted to investigate this problematic behavior among children and adolescents. The study conducted in Netherland showed, 21.8 % of adolescents have hyperactivity (7). Similarly, the study among Turkish adolescents reported that, the mean score of hyperactivity was 3.5 (SD  $\pm$  1.5) (8). Moreover, the study in Mongolia with same SDQ tool showed, 18.8% of adolescents (9) and 6.1% of children (aged 4-17 years) in Saudi Arabia reported hyperactivities (34). A similar study conducted in Nigeria showed, 7.6% adolescents had hyperactivity (28). A mean hyperactivity score of 5.0 (SD =1.4) has also been reported in Kenyan adolescents (11).

#### **2.2.5. Prosocial behavior**

Study in China stated that, the mean of prosocial behavior in adolescents were 7.68 (SD  $\pm$  2.12) (22). Likewise, study in Saudi Arabia shows; 22% (n=1236) of children and adolescents have difficulties in prosocial behaviors (34). Similar study from Saudi Arabia among diabetic children and adolescents, 9.2% abnormal prosocial behavior were reported (33). Moreover, study in Nigeria was reported that, 8.0% of adolescents had abnormal prosocial behavior (28). In addition, 5% of abnormal prosocial behavior among adolescents were reported from Egypt(36).

## **2.3. Factors associated with emotional and behavioral problems**

### **2.3.1. Family and parental related factors**

Stressful events, stressors and relationship problems in their parents might be cause of emotional and behavioral problems for adolescents. Parent and adolescents relationship can be assessed by asking how they express their relationship with mother, father or comparable persons (37). Study in Spain assessed role of parental acceptance or rejections among adolescents stated that, maternal criticism and rejection in early and middle age adolescence were associated with emotional instability (38). In addition, across-sectional study in China stated that, poor relationship of adolescents with family and parents is increases emotional and behavioral problems among adolescents (22). In additions, conflict within parents or guardians affect adolescent's belief about close relationship. This might be course of action in their life and becomes problems in social and emotional functioning. Supported evidence is, adolescent's EBPs, interpersonal relationships and academic outcomes are negatively affected by conflict between parents/guardians. Moreover, living in families with conflict confronts with higher agreeableness difficulties (39,40). Likewise, mental health foundation declares; problems in parental communication, separation or divorce, substance use and family history of mental illness exacerbate adolescent's emotional and behavioral problems (41).

Beside this, parent's economical and employment status, family structures and income had its own contribution on EBPs. The same to that, Living in rural area, expose to negative life events like, sexual and physical abuse, lower parental expectation from their children increases adolescent EBPs (9,22). A longitudinal study conducted in Sweden also showed that, parents who had low expectations on adolescents, increased odds of having externalizing behavior of adolescent's (42). In contrast, other study in China reported that, excessive expectations also had its own negative impact on adolescent's behavioral problem (43).

### **2.3.2. Adolescent related factors**

Adolescents are experienced with different role of transition. This transition starting at school; from primary to secondary, changes in peer groups, going away through puberty, sexual maturation and transition to university or work. At this role transitions of age, they porn for

loneliness, study pressure and stressful situations might be factors to develop EBPs (22,44). Result from different studies showed, adolescents are a risky group for EBPs. As it showed 24.8% females develop emotional problems compared to 19.7% males. The suggested reason for difference is that, due to effects of above listed factors and changes in body image. Whereas 13.3% of males had aggressive behavioral as compared with 9.0% females (41,45).

### **2.3.3. Substance use in adolescents as a factor for mental health problems.**

Alcohol, khat and cigarettes were commonly used by both high school and college students in urban as well as rural areas. Even though, using patterns of the substances among adolescents were related to the gender, age/ education and religion of the users, no clear cut patterns were observed in relation to other several factors including geographic locations. Likewise, Cannabis was used in high schools mainly in urban private schools. Students who used khat increased violent behaviors towards women and enhanced sexual activity by 44% as compared to alcohol users 38%, with increased risks for negative consequences (46).

Study conducted in University of Washington stated that, adolescents substance abuse and EBP are indicators for comorbidity, in latter life complication (47). In addition, cross-sectional study conducted in Nepal declared that, substance users had significant impacts on individuals psychological (emotional and behavioral) and social wellbeing (48). The study in Bench Maji Zone Southwest Ethiopia showed that, the magnitude of substance abuse among students was 42.5%. The prevalence of khat chewing, alcohol use and cigarette smoking was 65%, 28% and 4.8%, respectively. Concerning initiation time 24% of adolescents starts at high and preparatory schools, where as 7.80% of the students start during on staying of elementary schools (49).

## 2.4. Conceptual frame work

Conceptual frame work explains the relationship between emotional and behavioral problems with socio demographic and adolescent related, family related, parental related factors and substance use.

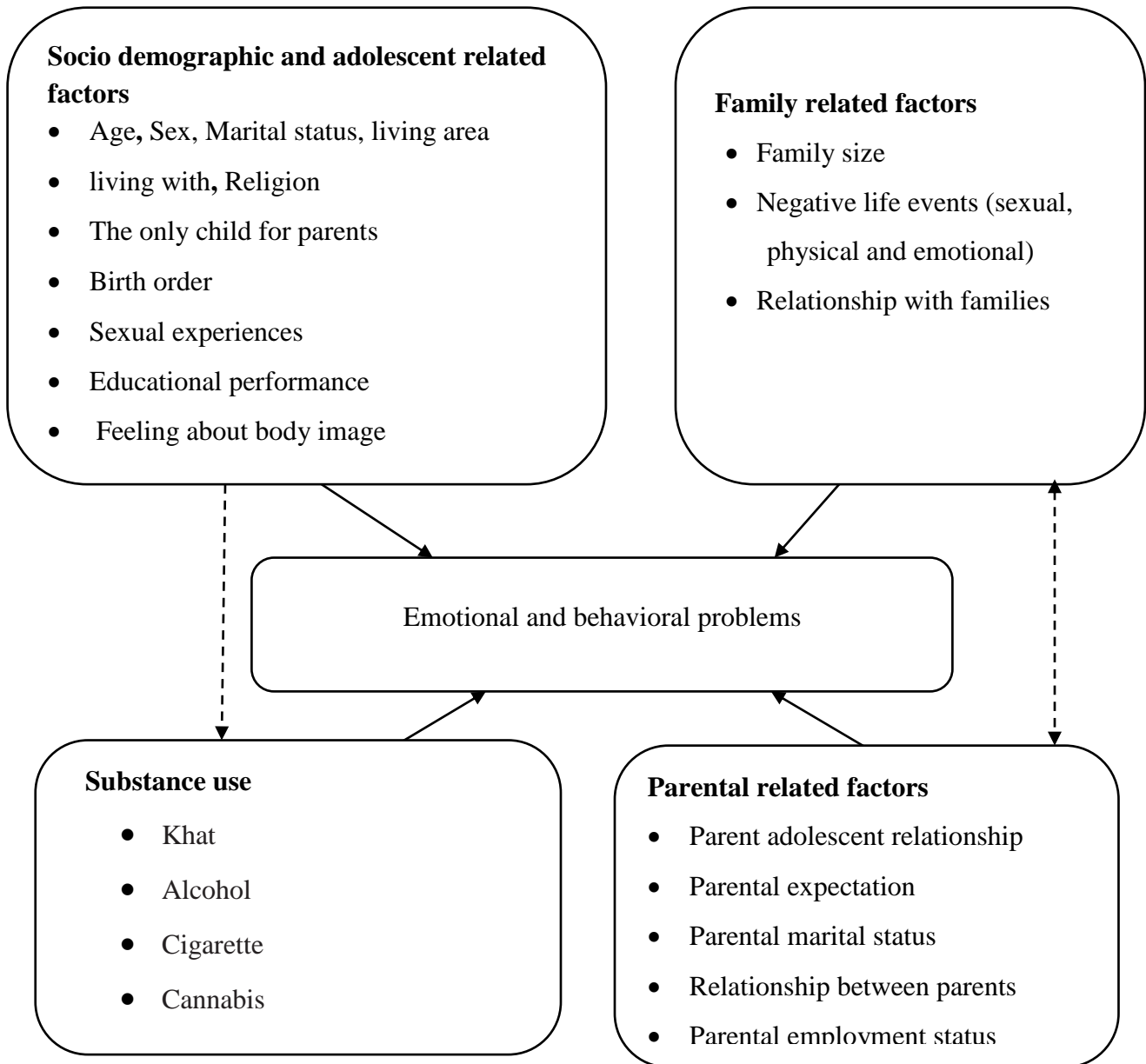


Figure 1. Conceptual framework of prevalence and associated factors of emotional and behavioral problems among adolescents in public schools of Samara Logia town, Afar Regional State, Ethiopia.

## **CHAPTER 3: OBJECTIVES**

### **3.1. General objective**

To assess prevalence and associated factors of emotional and behavioral problems among adolescents, in public schools of Samara Logia town, Afar Regional State, Northeast Ethiopia in 2019.

### **3.2. Specific objectives**

- To determine prevalence of emotional and behavioral problems among adolescents in public schools of Samara Logia town, Afar Regional State, Ethiopia.
- To identify factors associated with emotional and behavioral problems among adolescents in public schools of Samara Logia town, Afar Regional State, Ethiopia.

## **CHAPTER 4: MATERIALS AND METHODS**

### **4.1. Study area and period**

This study was conducted in Afar Regional State, within public schools of Samara Logia town, which is found 578 km far from Addis Ababa. Afar national regional state is located in the north eastern part of Ethiopia and lies in the East African Great Rift Valley. It is bordered by the countries of Djibouti in the east and Eritrea in the north. The region is characterized by an arid and semi-arid climate with low and erratic rainfall. The altitude of the region ranges from 120 m below sea level to 1500 m above sea level. Temperature varies from 20 °C in higher elevations to 48 °C in lower elevations. Rainfall is bi-modal throughout the region with a mean annual rainfall below 500 mm in the semi-arid western escarpments and decreasing to 150 mm in the arid zones to the east. Afar is increasingly drought-prone. The production system of the Afar region is dominated by pastoralism (90%) and agro-pastoralism (10%). The region has a total populations 1,411,092, consisting 786,338 men, 624,754 women and 442,692 are adolescents (50).

Even though, the name of the town seems different, Samara and Logia there are found within one municipality. In this town, there are four public schools. Two primary schools, from grade [5-8]<sup>th</sup> and two high schools, from grade [9-12]<sup>th</sup>. A total of 732 students found in Logia and 575 students in Samara primary public schools. Similarly, 856 students found in Logia and 590 students found in Samara high school. Each school has more than one section within grade levels (Figure 1). This study was conducted among those adolescents from April 23-May 23, 2019.

### **4.2. Study design**

Institution based cross-sectional study design was employed.

### **4.3. Population**

#### **4.3.1. Source populations**

All adolescent students in public schools of grade 5<sup>th</sup> to 12<sup>th</sup> of Samara Logia town

#### **4.3.2. Study population**

All adolescent students in selected public schools and fulfilled inclusion criteria



### **4.3.3. Study unit**

Individual student

## **4.4. Inclusion and exclusion criteria**

### **4.4.1. Inclusion criteria**

All adolescent students from grade [5<sup>th</sup> -12<sup>th</sup>] and age 11-18 years were included.

### **4.4.2. Exclusion criteria**

Students whose ages 19 year old were excluded

## **4.5. Sample size determination**

The sample size for this study was calculated using single population proportion formula. With assumption of 95% confidence level, 50% expected prevalence of EBPs to get the maximum sample size since it is not studied in adolescent age group and 5% marginal error.  $n =$

$$\frac{(Z_{\alpha/2})^2 P(1-P)}{d^2}$$

Where:  $n$  = Sample size;  $Z (\alpha/2)$  = 95% confidence interval which is 1.96,  $p$  = (50%),  $d$  = marginal of error which is 5% .Therefore, the sampling size  $n = \frac{1.96 \times 1.96 \times 0.5 \times 0.5}{0.05 \times 0.05} = 384$  .

Using 1.5 design effects and adding 10% of non response rate  $384 \times 1.5 + 58$ , the final sample size was 635.

## **4.6. Sampling techniques and procedure**

Multistage random sampling technique was employed to select study participants. First, one primary (grade 5-8) and one high school (grade 9-12) were selected by lottery method from a total of two primary and two high schools. Next, sample size was proportionally allocated to each section of each grade level. Then, students were randomly selected based on computer generated random numbers for each section in each grade level. Finally, computer generated random numbers are linked with serial number of students in the roster (Figure 2).

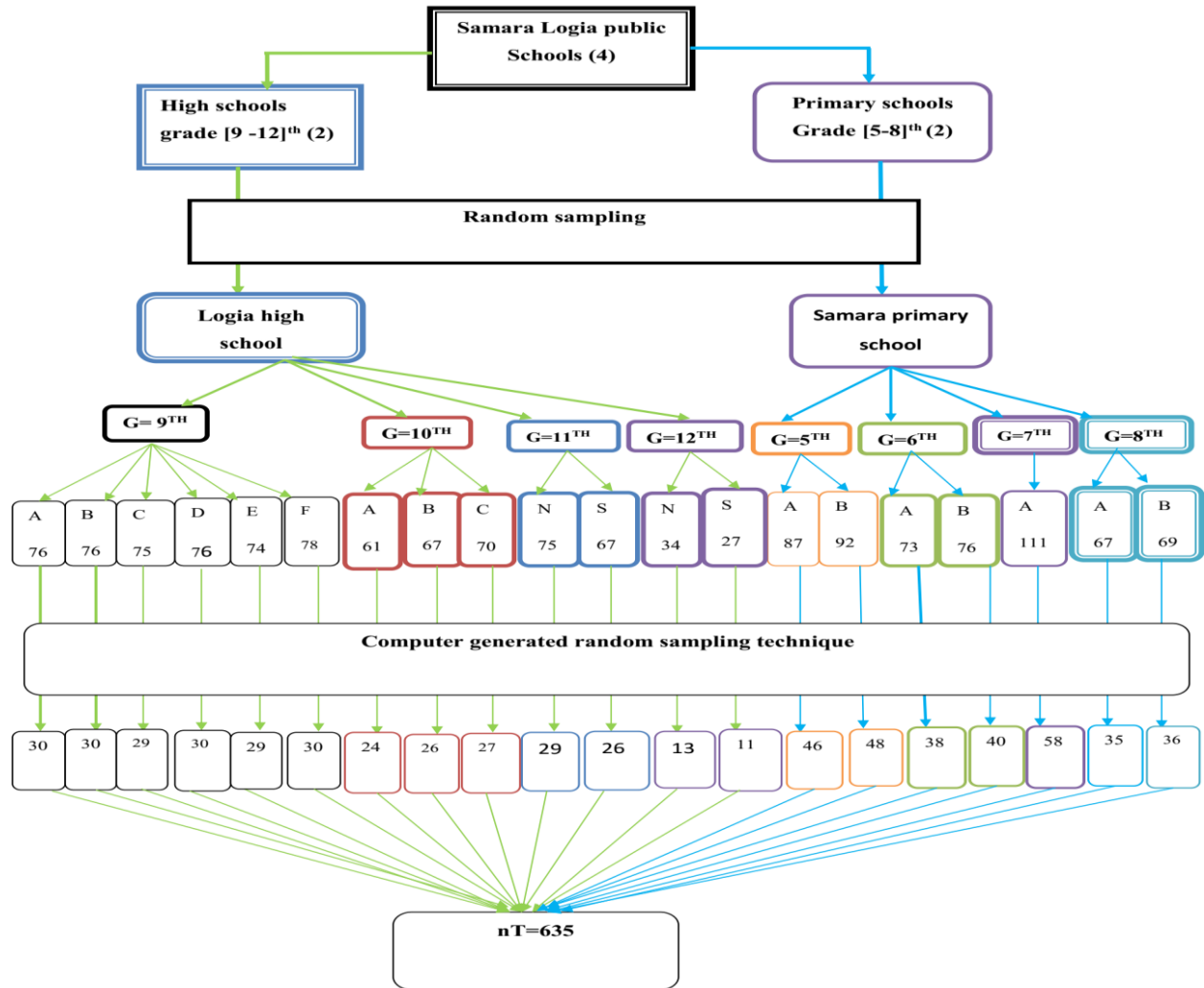


Figure 2. Schematic diagram of the sampling procedure for the study of prevalence and associated factors of emotional and behavioral problems among adolescents, in public schools of Samara Logia town, Afar Regional State, Northeast, Ethiopia.

(G= stands for grade for each schools; A, B, C, D, E, F = stands for sections in each grade; N=stands for natural sciences; S=stands for social sciences; nT= stands for total number of sample size).

## 4.7. Study variables

**Dependent variable:** - Emotional and Behavioral Problems.

**Independent variables:**

- Socio-demographic characteristics: age, sex, marital status, religion, ethnicity, living area, living with, only child for parents, birth order, sexual experiences, educational performance, history of mental illness and feeling about body image (physical appearance).
- Family factors: family size, relationship with families and negative life events like sexual, physical and emotional.
- Parental factors: parents and adolescent relationship, parental expectation, parental marital status, relationship between parents (mother and father) or guardians and parental or guardian employment status.
- Substance use: khat, Alcohol, Cigarette and Cannabis use

## 4.8. Data collection materials and procedures

Child and adolescents mental health status was assessed using Strength and Difficulties Questionnaire (SDQ), self reported version (51). It has 25 items of questionnaires used to screen recent last six months of emotional and behavioral problems in children and adolescents up to aged 18 years. The tool grouped into five subscales emotional problem; conduct problem, hyperactive behavior, peer relationships and prosocial behaviors. Four of the subscales contribute to total difficulty score and a fifth one, identify prosocial relations. Each subscales has five items in each with the score of “*not true*”, “*somewhat true*” and “*certainly true*” in Likert scale (0-2) with total score 10 for each subscales. However, items like obedient, thinking things before acting, seeing tasks through to the end, having at least one good friend and liked by other are reverse coded (2-0).

In total difficulty score, subjects is said to be normal if the score 0-15, borderline 16-19, abnormal 20-40. For comparison purpose, researcher categorized total difficulty score as normal and abnormal. If the total scores is 0-15 the subjects is said to be normal or no emotional and

behavioral problems. Borderline and abnormal scores are taken together as abnormal with the total score of 16-40 (28). But, each sub scales described based on standard cutoff points. For emotional problem scale, subjects is said to be normal if the score is 0-5, borderline if the score is 6 and abnormal if the score is 7-10. For conduct problem scale, subjects is said to be normal if the score is 0-3, borderline 4, abnormal 5-10. For hyper activity scale, subjects is said to be normal if the score is 0-5, borderline 6, abnormal 7-10. For peer problem scale, subjects is said to be normal if the score is 0-3, borderline 4-5, abnormal 6-10 and for pro social scale, subjects is said to be normal if the score is 6-10, borderline 5, abnormal 0-4 (52).

In this tool, internalizing problem characterized by loneliness, poor self-esteem, depression and anxiety whereas externalizing problem like, restlessness, cheating, stealing, disobeying rules and aggression scales were relatively “uncontaminated” by one another (53,54). Study reported that, this tool had more than the 90<sup>th</sup> percentile probability in predicting independently diagnosed psychiatric disorders (53). Reliability of this tool is satisfactory (Cronbach  $\alpha$ = .73) and after 4 to 6 months retest stability was (mean= 0.62). Sensitivity and specificity varies with in components (53). However, it is reported in Nigeria (sensitivity 0.84, specificity 0.88) (55). Study in 12 African countries including Ethiopia reported , the cultural appropriateness of the SDQ overall was (0.18 - 0.89) (56). The tool is also validated in Amharic language and permitted by the author freely available online for research purpose (57). Study conducted in Ethiopia reports, internal reliability of SDQ Amharic version coefficient was 0.71 (54). In our study, 5% pre test was carried out at Dupty high school and reliability of questioners (Amharic version and afar-af translations of SDQ) was 0.73. After data were collected from all participants, the reliability becomes 0.702.

During the field work, first, permission was obtained from directors of schools. Next, serial number of students in the roster was collected from teachers. Then, based on computer generated random number, participants were collected from each class and purpose of the study was clearly stated. Assent was asked from participants and consent letters was sent for their parents/guardians. Finally, after obtained written informed consent from parents/guardians, data were collected by two teachers and two diploma nurses who can speak both afar-af and Amharic language. Every day, supervision was carried out by principal investigator and participant’s right to withdraw or refuse participation at any time was strictly respected.

#### **4.9. Operational definitions**

**Emotional and behavioral problem:** - Refers to the presence or absence of emotional and behavioral problems among adolescents as measured by (SDQ) tool. We say normal, if the total difficulties score is 0-15 and abnormal, if the total scores is 16-40 (28).

**Total difficulties score:** - The sum of emotional, conduct, hyperactivity and peer problems based on the SDQ tool.

**Parental and adolescent relationship:** - Adolescents relationship with mother, father/guardians. The response was categorized if very close, supportive and warm is “*good*” somewhat poor (not close, more criticism sometimes love and sometimes quarrel) and no such person is “*poor*” (37).

**Family:** - Two or more people living in close proximity and having reciprocal obligations with a sense of caring, commonness and commitment.

**Conduct problem:** - Adolescents persistent and repetitive behaviors leads violate major age-appropriate norms and basic rights of others. It is said to be no conduct problem if SDQ score 0-3, borderline if the score is 4 and abnormal if the score is 5-10 (52) .

**Prosocial problem:** -Behavioral problem that happen when adolescence individual unable to help, share, donate and co-operate with other adolescents or child less than his/her age. It is said to be no prosocial problem if SDQ score 6-10, borderline if the score is 5 and abnormal if the score is 0-4.

**Peer problem:** - The problem that occur when adolescent unable to establish or maintained relationship with the same age group. According to SDQ scores, it is said to be no peer problem if the score is 0-3, borderline if the score is 4-5 and abnormal if the score is 6-10.

**Hyperactivity:** - Refers to constant activity, being easily distracted, impulsiveness, in ability concentrate, aggressiveness and similar behaviors. It is normal if SDQ score is 0-5, borderline if the score is 6 and abnormal if the score is 7-10.

**Current substance use:** - Using substance in recent last three months (58).

**High expectation:** - In this work parents are said to have high expectation if they assumed their child has better performance both in academically and socially.

**Low expectation:** - In this work, parents are said to have low expectation if they assumed their child has under performance both in academically and socially.

**Institution:** - In this work, institution refers schools.

**Quarreling:** - In this work parents are said to have quarreling when there is disagreements (conflicts) over something between mothers, fathers or guardians and most of the time which is happens in front of adolescents.

**Satisfied with parental care:** -In this study adolescents are said to have satisfaction with parental care; when they are pleased by parental support in studying, having access of assistant handbooks and school related materials with emotional supports.

#### **4.10. Data quality management**

Amharic and English version of questionnaires were translated in to Afar-af language by two native Afar-af teachers. Then, it is translated back to Amharic and English by other native Afar-af language teachers to check consistency of translation. Before data collection, the prepared checklists in Amharic and Afar-af language were checked. 5% pre test was carried out at Dupty high school to see appropriateness of questionnaires. Data collectors were trained for one day. Data were collected by, two teachers from other schools and two diploma nurses. Every day, supervision was carried out for checking the consistency and completeness of checklist by principal investigator. Before starting analysis, completeness of the data was rechecked.

#### **4.11. Data processing and analysis**

The data were coded and entered to Epi-Data version 3.1 and was exported to SPSS version 21 for data cleaning and analysis. The data in categorical variables is described using frequency, percentages and graphs. Bi-variate binary logistic regression was performed to identify candidate variables for multivariable regression. Candidate variables were selected at  $p$ -value  $< 0.25$  and based on clinical/public health importance of the variable. Next, multicollinearity among candidate variables were checked using variance inflation factor (VIF). Then, interaction/effect modification was checked between each pair of candidate variables in cross-tabs. Finally, multivariable binary logistic regression was carried out by including interaction terms detected in cross-tabs to identify determinant factors at  $p$ -value threshold  $< 0.05$ . Odds ratio (OR) and its

95% CI was used to report strength of association between exposure and outcome variables. The result is presented using tables.

#### **4.12. Ethical considerations**

Before the actual data collection, ethical clearance was obtained from the Institutional Review Board (IRB) of Jimma University, Institute of Health. A letter requesting permission was issued from the coordinator of Integrated Clinical and Community Mental Health (ICCMH) to the respective schools and permission was granted. The participants were informed about the purposes of the study, assent from the participants and written consent from their parents was obtained. The participant's right to refuse or withdraw from participating in the study and issues of confidentiality was clearly informed and strictly respected.

#### **4.13. Dissemination plan of study findings**

The result of this study will be presented to Jimma University community as part of ICCMH thesis. Then, it will be submitted to Jimma University, Institute of Health Department of Psychiatry. In addition, documents will be given to Afar region educational and health bureau, to the targeted schools and NGOs working on this area. Further attempt will be made to publish it on peer reviewed scientific journal, to be sources for other researchers and policy makers about adolescent emotional and behavioral health statuses.

## CHAPTER 5: RESULTS

### 5.1. Socio demographic and adolescent related factors

A total of 635 adolescents were planned to enroll from which 622 (98%) participated in the study. The mean age of respondents was 15.5 years (SD=1.8). From the total respondents, 346 (55.6%) were male and 575 (92.4%) were single. Most of respondents, 552 (88.7%) were Muslim in religion and 395 (63.5%) were Afar followed by Amhara 202 (32.5%). Most of the respondents, 597 (96.0%) live in urban. Out of them, 563 (90.5%) live with their parents and the rest fifty-nine (9.5%) live with guardians. Majority of the respondents, 559 (89.9%) were not the only child/adolescent for their families. Half of respondents, 315 (50.6%) were first to second in birth order followed by third to fourth 232 (37.3%). More than half of the respondents, 321 (51.6%) were high school students (9<sup>th</sup> to 12<sup>th</sup> grade). Large proportion, 258 (41.5%) were top ten in first semester rank. Relating to feeling about body image, 486 (78.1%) were happy about their body. But, 66 (10.6%) reported need to get weight. Most of respondents, 571 (91.8%) did not experience sexual intercourse due to peer pressure. Similarly, 542 (87.1%) did not experienced sexual intercourse due to their interest. Thirty-four (5.5%) of respondents reported they had history of mental illness and 20 (58.8%) of them got treatment (Table 1).

Table 1. Socio demographic and adolescent related factors in selected public schools of Samara Logia town, Afar regional state, Northeast, Ethiopia (n=622).

Name of variables	Category of variables	Number	Percentage
Age of participant	11-14 years old	172	27.7
	15-18 years old	450	72.3
Sex	Male	346	55.6
	Female	276	44.4
Marital statuses	Single	575	92.4
	Married	42	6.8
	Divorced	4	0.6
	Separated	1	0.2



Religion	Muslim	552	88.7
	Orthodox	64	10.3
	Protestant	5	0.8
	Other*	1	0.2
Ethnicity	Afar	395	63.5
	Amhara	202	32.5
	Tigre	18	2.9
	Oromo	3	0.5
	Other**	4	0.6
Living area	Urban	597	96.0
	Rural	25	4.0
Living with	With parents	563	90.5
	With guardians	59	9.5
The only child for the family	Yes	63	10.1
	No	559	89.9
Birth order	First to second	315	50.6
	Third to fifth	232	37.3
	Six and above	75	12.1
School grade level	5 <sup>th</sup> - 8 <sup>th</sup>	301	48.4
	9 <sup>th</sup> - 10 <sup>th</sup>	242	38.9
	11 <sup>th</sup> -12 <sup>th</sup>	79	12.7
First semester academic rank or result	Top ten	258	41.5
	11 <sup>th</sup> - 20 <sup>th</sup>	178	28.6
	Above 20 <sup>th</sup>	186	29.9
Feeling about body image	Happy with my body	486	78.1
	Not happy	33	5.3
	I need lose weight	37	5.9
	Need to get weight	66	10.6

Had sexual intercourse because of peer pressure	Never	571	91.8
	Only once	19	3.0
	Two or three times	16	2.6
	More than three times	16	2.6
Had sexual intercourse because of interest	Never	542	87.1
	Only once	36	5.8
	Two or three times	18	2.9
	More than three times	26	4.2
History of mental illness	Yes	34	5.5
	No	588	94.5
Getting treatment	Yes	20	58.8
	No	14	41.2

*Other\*= Jehovah. Other \*\*= Silte, Gurage*

## 5.2. Description of factors related to adolescent's family

Majority of the respondents, 247 (39.7%) came from five to seven families. Most of respondents, 500 (80.4%) had good relationship with their brothers, sisters and guardian's children. Some of respondents, 98 (15.8%) had negative experience (sexual, physical, emotional) in their life. Out of them, physical abuse 52 (53.0%) is the leading one (Table 2).

Table 2. Summary of factors related to family of adolescents from selected public schools of Samara Logia town, Afar regional state, Northeast, Ethiopia (n=622).

Name of variables	Category of variables	Number	Percentage
Family size	Two- four	193	31.0
	Five - seven	247	39.7
	Above seven	182	29.3
Relationship with brothers, sisters or guardian's children	Good	500	80.4
	Poor	122	19.6
Negative experience like sexual, physical and emotional	Yes	98	15.8
	No	524	84.2

If yes for question 5, which one	Sexual	32	32.7
	Physical	52	53.0
	Other*	14	14.3

Other\*=verbal or emotional abuse.

### 5.3. Description of factors related to adolescent's parent

From the total of 622 individuals, 465 (74.8%) respondents reported as their parents were married. Majority of respondents, 419 (67.4%) reported there was supportive and loving relationships between their parents or guardians. However, sixty-two (10.0%) had quarreling experience. In addition, majority of respondents, 523 (84.1%) had good relationship with their mothers or guardians as compared to with their fathers or guardians 480 (77.2%). Only, 64 (10.9%) respondents reported their parents or guardians expected low from them. In parallel to this, 76 (12.2%) respondents were not satisfaction with parental or guardians care. Out of 622 respondents, 225 (36.2%) reported their mother's or guardian mothers were employed. The same numbers were house wife. Half of respondent's fathers or guardians, 311 (50.0%) were employed (Table 3).

Table 3. Description of factors related parents of adolescents from selected public schools of Samara Logia town, Afar regional state, Northeast, Ethiopia (n=622).

Name of variables	Category of variables	Number	Percentage
Parental marital status	Married	465	74.8
	Divorced	63	10.1
	Separated	53	8.5
	Widowed	41	6.6
Perceived relationship between mothers and fathers or guardians	Supportive, loving	419	67.4
	Only supportive	141	22.6
	Quarreling	62	10.0
Relationship with mothers or guardians	Good	523	84.1
	Poor	99	15.9

Relationship with fathers or guardians	Good	480	77.2
	Poor	142	22.8
Parental or guardians expectation from the adolescents	High	554	89.1
	Low	68	10.9
Satisfaction with parental or guardians care	Yes	546	87.8
	No	76	12.2
Mother's or guardian mother's occupational status	Governmental employed	225	36.2
	Unemployed	29	4.7
	Daily worker	48	7.7
	Pastoralist	31	5.0
	Merchant	64	10.2
	House wife	225	36.2
Father's or guardian father's occupational status	Governmental employed	311	50.0
	Unemployed	49	7.9
	Daily worker	88	14.1
	Pastoralist	68	11.0
	Merchant	106	17.0

#### 5.4. Substance use among study participants

From the total individuals involved in the study, 128 (20.6%) respondents used substance at least once in their life time. Out of those ever user, 87 (68.0%) of the adolescents used some form of substance in the last three months. Among substance users, majority of them used khat, 90 (70.3%) followed by cigarette, 17 (13.3%) (Table 4)

Table 4. Summary of substance uses among study participants in selected public schools of Samara Logia town, Afar Regional State, Northeast, Ethiopia (n=622).

<b>Name of variables</b>	<b>Category of variables</b>	<b>Number</b>	<b>Percentage</b>
Substance ever use	Yes	128	20.6
	No	494	79.4
Substance use in the last three months	Yes	87	68.0
	No	41	32.0
If yes for the above questions, what types of substance do you use?	Khat	90	70.3
	Alcohol	13	10.2
	Cigarette	17	13.3
	Cannabis	5	3.9
	Inhalants	3	2.3

### 5.5. Emotional and behavioral problems among study participants

In this study, from a total of 622 study participants, 328 (52.7%) with (95% CI=48.8, 56.7) had emotional and behavioral problems. Regarding subcomponents of emotional and behavioral problems, 260 (41.8%) adolescents showed abnormal conduct problems, followed by abnormal, 236 (37.9%) peer problems. About, 88 (14.1%) adolescents had abnormal and 69 (11.1%) borderline emotional problems. In hyperactivity, 64 (10.3%) were in abnormal whereas 84 (13.5%) were in borderline. However, most of participants showed normal in prosocial, 494 (79.4%) (Figure1).

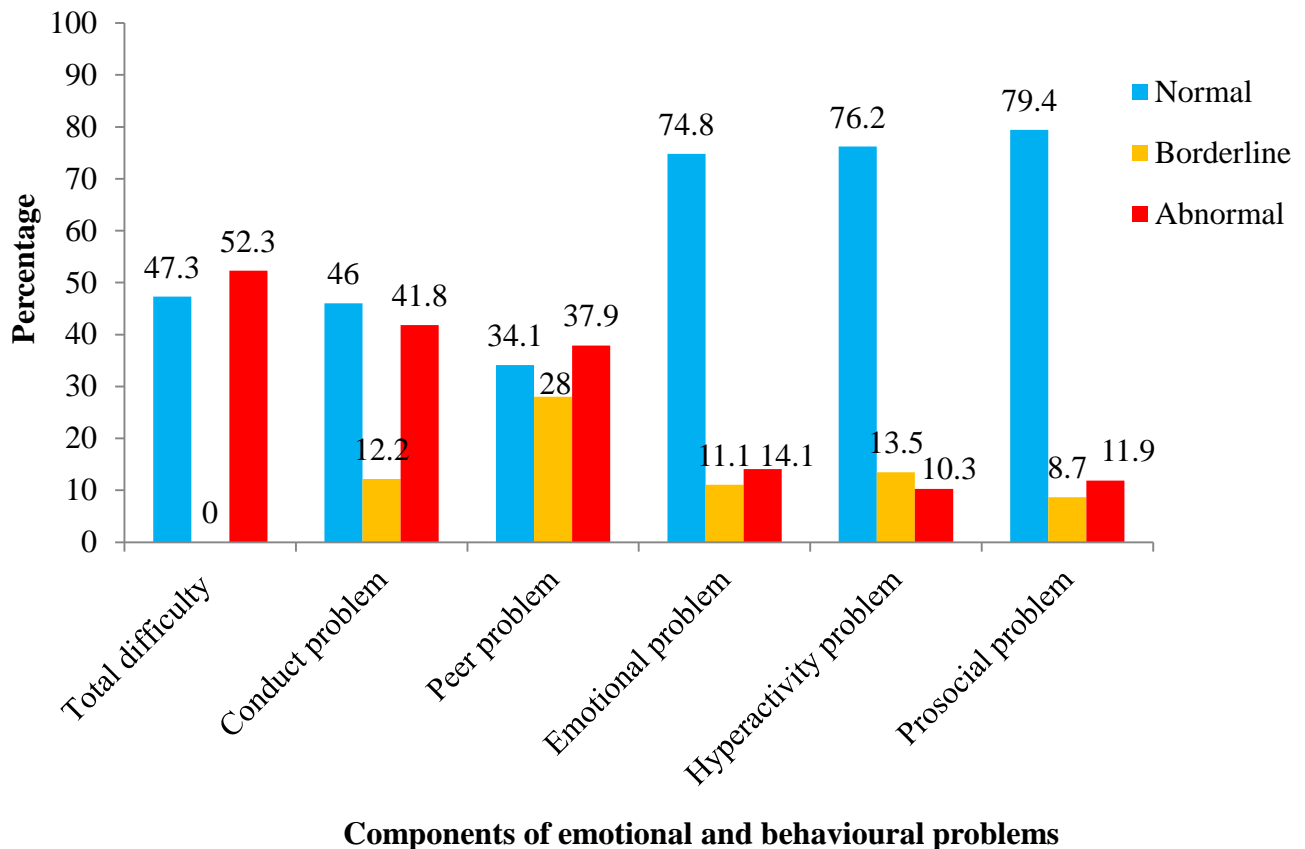


Figure 3. Summary of the prevalence of emotional and behavioral problems among adolescents, in selected public schools of Samara Logia town, Afar Regional State, Northeast, Ethiopia (n=622).

The prevalence of EBPs and its components are described in (Table 5) below. In addition, the mean of each components and reliability was estimated. In our study, reliability of each component was almost similar with reports in the previous studies (53,54,56).

Table 5. Summary of emotional and behavioral problems with mean and reliability scores among study participants, in public schools of Samara Logia town, Afar Regional State, Northeast, Ethiopia, (n=622).

<b>Components of EBPs</b>	<b>Normal N (%)</b>	<b>Borderline N (%)</b>	<b>Abnormal N (%)</b>	<b>Mean score</b>	<b>Cronbach's alpha value</b>
Emotional problem	465 (74.8)	69 (11.1)	88 (14.1)	3.67 ± 2.53	0.639
Conduct problem	286 (64.0)	76 (12.2)	260 (41.8)	3.72 ± 2.79	0.789
Peer problem	212 (34.1)	174 (28.0)	236 (37.9)	4.67 ± 2.59	0.695
Hyperactivity	474 (76.2)	84 (13.5)	64 (10.3)	3.86 ± 2.13	0.384
Prosocial score	494 (79.4)	54 (8.7)	74 (11.9)	7.68 ± 2.55	0.797
Total difficult score	294 (47.3)		328 (52.7)	15.91± 6.32	0.734
Overall reliability Cronbach's alpha					0.702

### **5.6. Factors associated with emotional and behavioral problems among study participants**

Bivariate logistic regression was performed to assess association of each independent variable with the outcome variable. Variables that showed significance at  $p < 0.25$  in bivariate logistic regression were considered as candidate and included in multivariable logistic regression model. Those candidate variables were family size, birth order, school grade level, first semester academic rank, living with, relationship with mother or guardian, relationship with father or guardian, relationship with brothers, sisters or guardian's children, parental marital status, perceived relationship between parents or guardians, mother's or guardian mothers occupational status, father's or guardian fathers occupational status, satisfaction with parental or guardians care, parental or guardians expectation from adolescents, feeling about body image, sexual intercourse due to peer pressure, sexual intercourse due to interest and ever use of substance were candidate (Table 6).

Table 6. Bivariate logistic regression analysis of factors associated with emotional and behavioral problems among study participants, in public schools of Samara Logia town, Afar regional state, Northeast, Ethiopia, (n=622).

Variables	Category of variables	Total Difficulty score			
		Abnormal N (%)	Normal N (%)	<i>p</i> -value	COR (95% CI)
Family size	Two- four	102 (31.1)	91 (31.0)	.581	1.11 (.76, 1.62)
	Five - seven	124 (37.8)	123 (41.8)	1	1
	Above seven	102 (31.1)	80 (27.2)	<b>.231</b>	1.27 (.86, 1.86)*
Birth order	First to second	158 (48.2)	157 (53.4)	1	1
	Third to Fifth	132 (40.2)	100 (34.0)	<b>.119</b>	1.31 (.93, 1.85)*
	Six and above	38 (11.6)	37 (12.6)	.937	1.02 (.62, 1.69)
School grade level	5th- 8th	167 (50.9)	134 (45.6)	1	1
	9th- 10th	128 (39.0)	114 (38.8)	.547	.90 (.64, 1.27)
	11th -12th	33 (10.1)	46 (15.6)	<b>.031</b>	.58 (.35, .95)*
First semester academic rank or result	Top ten	126 (38.4)	132 (44.9)	1	1
	11th - 20th	90 (27.4)	88 (29.9)	.723	1.07 (.73, 1.57)
	Above 20th	112 (34.1)	74 (25.2)	<b>.018</b>	1.59 (1.08,2.32)*
Living with	With parents	290 (88.4)	273 (92.9)	1	1
	With guardians	38 (11.6)	21 (7.1)	<b>.061</b>	1.70 (0.98, 2.98)*
Relationship with mother or guardian	Good	259 (79.0)	264 (89.8)	1	1
	Poor	69 (21.0)	30 (10.2)	<b>.000</b>	2.34 (1.48, 3.72)*
Relationship with father or guardian	Good	234 (71.3)	246 (83.7)	1	1
	Poor	94 (28.7)	48 (16.3)	<b>.000</b>	2.06 (1.39, 3.04)*
Relationship with brothers, sisters or guardian's children	Good	242 (73.8)	258 (87.8)	1	1
	Poor	86 (26.2)	36 (12.2)	<b>.000</b>	2.55 (1.66,3.90)*



Parental marital status	Married	234 (71.3)	231 (78.6)	1	1
	Divorced	37 (11.3)	26 (8.8)	<b>.212</b>	1.41 (.82, 2.40)*
	Separated	33 (10.1)	20 (6.8)	<b>.102</b>	1.63 (.91, 2.92)*
	Widowed	24 (7.3)	17 (5.8)	.315	1.39 (.73, 2.66)
Perceived relationship between Mother and father or guardians	Supportive, loving	199 (60.7)	220 (74.8)	1	1
	Only supportive	83 (25.3)	58 (19.7)	<b>.020</b>	1.58 (1.08, 2.33)*
Mother's or guardian mothers occupational status	Quarreling	46 (14.0)	16 (5.4)	<b>.000</b>	3.18 (1.74, 5.79)*
	Governmental employer	113 (34.5)	112 (38.1)	1	1
	Unemployed	17 (5.2)	12 (4.1)	.396	1.40 (.64, 3.08)
	Daily worker	33 (10.1)	15 (5.1)	<b>.021</b>	2.18 (1.12, 4.24)*
	Pastoralist	20 (6.1)	11 (3.7)	<b>.139</b>	1.80 (.83, 3.93)*
	Merchant	34 (10.4)	30 (10.2)	.682	1.12 (.64, 1.96)
Father's or guardian fathers occupational status	House wife	111 (33.8)	114 (38.8)	.850	.97 (.67, 1.40)
	Governmental employer	151 (46.0)	160 (54.4)	1	1
	Unemployed	35 (10.7)	14 (4.8)	<b>.004</b>	2.65 (1.37, 5.12)*
	Daily worker	47 (14.3)	41 (13.9)	.422	1.22 (.76, 1.95)
	Pastoralist	36 (11.0)	32 (10.9)	.512	1.19 (.71, 2.02)
Satisfaction with parental or guardian care	Merchant	59 (18.0)	47 (16.0)	<b>.207</b>	1.33 (.85, 2.07)*
	Yes	270 (82.3)	276 (93.9)	1	1
	No	58 (17.7)	18 (6.1)	<b>.000</b>	3.29 (1.89, 5.74)*

Parental or guardians expectation from the adolescents	High	272 (82.9)	282 (95.9)	<b>1</b>	<b>1</b>
	Low	56 (17.1)	12 (4.1)	<b>.000</b>	4.84 (2.54, 9.23)*
Feeling about body image	Happy with my body	245 (74.7)	241 (82.0)	1	1
	Not happy with my body	20 (6.1)	13 (4.4)	.260	1.51 (.74, 3.11)
	Need to lose weight	21 (6.4)	16 (5.4)	.458	1.29 (.66, 2.53)
	Need to get weight	42 (12.8)	24 (8.2)	<b>.045</b>	1.72 (1.01, 2.93)*
Had sexual intercourse because of peer pressure	Never	295 (89.9)	276 (93.9)	1	<b>1</b>
	Only once	14 (4.3)	5 (1.7)	<b>.068</b>	2.62 (.93, 7.37)*
	Two /three times	10 (3.0)	6 (2.0)	.396	1.56 (.56, 4.35)
	More than three	9 (2.7)	7 (2.4)	.718	1.20 (.44, 3.27)
Had sexual intercourse because of interest	Never	275 (83.8)	267 (90.8)	1	1
	Only once	24 (7.3)	12 (4.1)	.068	1.94 (.95, 3.96)
	Two /three times	12 (3.7)	6 (2.0)	<b>.191</b>	1.94 (.72, 5.25)*
	More than three	17 (5.2)	9 (3.1)	<b>.150</b>	1.83 (.80, 4.19)*
Substance ever use	Yes	87 (26.5)	41 (13.9)	<b>.000</b>	2.23 (1.48, 3.36)*
	No	241 (73.5)	253 (86.1)	1	1

NOTE: \* shows candidate variables at  $p < 0.25$ , 1 = reference group.

Finally, variables having  $p$ -value  $<0.05$  in multivariable logistic regression were considered as significantly associated with emotional and behavioral problems. Adolescents who come from quarreling parents (quarreling relationship between mothers and fathers or guardians) were two times more likely developing EBPs compared with adolescents who come from supportive and loving parents (AOR =2.24, 95% CI= (1.19, 4.20)). The odds of having EBPs among adolescents who were not satisfied with parental or guardian care were nearly two times higher than adolescents satisfied with parental care (AOR =1.96, 95% CI= (1.07, 3.56)). Adolescents who had low parental or guardians expectations were at least three times more likely to develop EBPs compared with those having higher expectations (AOR =3.01, 95% CI= (1.51, 5.98)). The odds of having EBPs among adolescents, using substance at least once in their life was approximately two times higher compared with those did not use at all (AOR=1.75, 95% CI= (1.14, 2.70) (Table 7).

Table 7. Multivariable logistic regression analysis of factors associated with emotional and behavioral problems among study participants, in public schools of Samara Logia town, Afar regional state, Northeast, Ethiopia, (n=622).

Variables	Category of variable	$p$ -value	AOR (95% CI)
Perceived relationship between mothers and fathers or guardians	Supportive, loving	1	<b>1</b>
	Only supportive	.220	1.29 (.86, 1.94)
	Quarreling	.012	<b>2.24 (1.19, 4.20)**</b>
Satisfaction with parental or guardians care	Yes	1	<b>1</b>
	No	.028	<b>1.96 (1.07, 3.56)**</b>
Parental or guardians expectation from the adolescents	High	1	1
	Low	.002	<b>3.01 (1.51, 5.98)**</b>
Substance ever used	Yes	.011	<b>1.75 (1.14, 2.70)**</b>
	No	1	<b>1</b>

NOTE: -\*\* Indicate variables significant at  $p$ -value  $<0.05$ .

1= reference group, Model fitness =0.75

## CHEPTEER 6: DISCUSSION

A cross-sectional study was conducted among adolescents in public schools of Samara Logia town, Afar Regional State, North East Ethiopia. The prevalence of emotional and behavioral problems was 52.7%. Quarreling relationship between mothers and fathers/guardians, being not satisfied with parental care, low parental or guardians expectation and substance use at least once in their life were associated factors with EBPs.

In this study, the overall prevalence of emotional and behavioral problems among adolescents was in line with the study conducted in India 56% (24) and 42% (25). However, the prevalence rate observed in this study is higher than a self reports in Turkey 41.4% (8) and Nepal 30.0% (23), as well as parental report, 43.3% and teachers report 33.4% in Mongolia (9). The result of this study is also more than two times higher compared with self reported prevalence in Nigeria 20 % (28), Egypt 18.5% (16) and Mongolia 16.3%(9).The higher prevalence EBPs in this study might be due to, differences in cultural factors, socio-demographic variations and source of information. Other possible reason might be, this study were include all adolescent age groups (11-18 years) compared in, Nigeria excluded 18 year old adolescents (28), the same in Mongolia (9). Turkey from 11-14 (8) and Egypt 11,12-18 years old (16). This age disparity in the different studies might cause of differences in the results of the studies. It is supported by report from National Alliance of Mental illness stated that, about 21.4% adolescents within age of 13–18 years are experienced a severe mental health related problems at some point during their life. Moreover, 13% of problems happened among children with aged 8–15 years (59).

Regarding to components of EBPs, abnormal conduct problem was similar with study in Saudi Arabia 30% (33), two times higher in Nigerian 17.2% (28) and Netherland 13.5% (7). But, the mean score of conduct problem in this study, (Mean score= $3.7 \pm 2.9$ ) was nearly similar with the study in Kenya, (Mean score= $3.0 \pm 1.9$ ) (11). The second leading abnormal behavioral problem was peer problems. It is similar compared with Nigerian 39.1% (28), more than two times higher in Saudi Arabia 20% (34) and Mongolia 14.6% (9). But, the mean peer problems in this study, (Mean score = $4.7 \pm 2.6$ ) was nearly similar with the study in Kenyan, (Mean score = $4.3 \pm 1.4$ ) (11). The third leading problem was abnormal emotional problem. This was similar with study reported in Egypt 15.7% (16) and higher in Mongolia 10.% (9). But, the mean of this finding,

(Mean score =  $3.7 \pm 2.5$ ) almost similar with mean in Turkey, (Mean score =  $3.4 \pm 2.2$ ) (8) and in Kenya, (Mean score =  $3.5 \pm 2.4$ ) (11). The fourth leading problem was hyperactivity shows, approximately two times lower than the study reported in Mongolia 18.8% (9) and Netherland 21.8 % (7). The mean score of this finding (Mean score =  $3.9 \pm 2.1$ ) was nearly the same with the finding in Kenyan (M =  $5.0 \pm 1.4$ ) (11) and in Turkey (Mean score =  $3.5 \pm 1.5$ ) (8). The last component of EBP shows individual's prosocial relationship with others. From this finding, majority of respondents had normal prosocial relations. However, prosocial problem was lower by one and half times compared in Saudi Arabia 22% (34). But, higher than study reported in Nigeria 8.0% (28) and Egypt 5% (36). The probable reason for differences might be living styles, cultural variations and socio demographic condition that adolescents placed.

Adolescents who come from quarreling parents or guardians were two times more likely developing EBPs compared with adolescents who come from supportive and loving parents. The possible reasons might be, witnessing conflict within parents or guardians affect adolescent's belief about close relationships. This might be course of action in their life and becomes problems in social and emotional functioning. Evidence showed, adolescent's emotion, behavior, interpersonal relationships and academic outcomes are negatively affected by conflict between parents/guardians. In addition, living in families with conflict confronts with higher agreeableness difficulties (39,40).

The odds of having EBPs among adolescents who were not satisfied with parental or guardians care were nearly two times higher than adolescents satisfied with parental care. This might be due to a number of family size and poverty. In this study, about 69% adolescents come from at least five family members and 33% fathers, 54.6% mothers and 27.2% guardians were neither governmental worker nor self employer. This might be a possible reason for parents or guardians failure to fulfill emotional, social and psychological support of adolescents. Evidence stated that, poverty lowers satisfaction of families by mediating psychological control as well as parenting styles and has negative effects on children's/adolescent's behaviors (60).

Adolescents who had low parental or guardian expectations were at least three times more likely developing EBPs compared with those having higher expectations. Reasons of parents or guardians having low expectations from adolescents were not clear. However, low parental

expectations increased adolescent's EBPs. Possible explanations could be, low parental expectations may cause weakness and less encouragement in school, which may have a negative influence on behavior. This is supported by a longitudinal study in Sweden showed that, parents who had low expectations toward their children, increased odds of having behavioral problems of adolescents by one and half times (42). Moreover, study in China stated that, low parental expectation were associated with increased behavioral problems of adolescent's by 1.38 times compared with having higher expectations (22). In contrast, other study in China reported that, excessive expectations had its own negative impacts on adolescent's behavioral outcomes (43).

Finally, the odds of having EBPs among adolescents, using substance at least once in their life was approximately two times higher compared with those did not use at all. The reasons of developing EBPs among those using substance at least once could be, majority of ever users (68%) were current users. Therefore, the possible association might be due to the fact that, individuals who use psychoactive substances (Khat) are vulnerable to different emotional and behavioral symptoms due to declining health and the substance direct effect to the brain. This result is supported by the study conducted in Nepal showed that, substance uses had significant impacts on individuals psychological (emotional and behavioral) and social wellbeing (48).

### **Limitations of the study**

This study was based on response from adolescents only. Since data from multiple informants are often more reliable, it is better to include data from parents and teachers in future researches. Because of this study focused on adolescents attending in public schools, generalizations of findings do not include those adolescents attending in private schools. Moreover, adolescents with age 19 years were not include due to age limitation of self reported version of SDQ assessment tool. Therefore, result of this finding does not represent adolescents with this age. In addition, this study did not incorporate family's income. It would be better if it was assessed using wealth-index. Finally, the study used UK cutoff points for SDQ scores. Since the study populations were from pastoralists and most of them were not secured, some culturally appropriate behavior might be considered as behavioral problems by the score.

**Beside to these limitations, the study identifies EBPs among adolescents using validated tool and large representative sample size.**

## **CHEPTER 7: CONCLUSION AND RECOMMENDATIONS**

### **7.1. Conclusion**

The overall prevalence of emotional and behavioral problems among adolescents in public schools of Samara Logia town, Afar regional state was high. Having quarreling relationship between parents/guardians, not satisfied with parental care, low parental/guardian's expectation and using substance at list once in their life were statistically significantly associated factors with EBPs.

### **7.2. Recommendations**

**To Afar region health bureau:** Afar regional health bureau is recommended to work with educational bureau and design intervention strategies to tackle emotional and behavioral problems among school adolescents especially focusing on family related matters and substance use.

**To Afar region educational bureau:** We would like to recommend to develop intervention strategies considering parents and adolescent students and provide training/disseminate information on issues like, how to solve their problems peacefully, related to expectations and care for adolescent students as well as on substance use related problems.

**For school administrators and health care facilities:** School administrators and health care facilities in the region (hospitals, health centers, etc) are also recommended to improve coordination and deliver continuous mental health information, like counseling and treatment service to adolescents and their families.

**To parents or guardians:** We strongly recommend to parents/guardians to encourage, give good support for adolescents and solve interpersonal problems very peacefully.

**To Samara University:** It is recommended to give more focus on adolescent's mental health and related problems. In additions, we recommend to give supports for those physically and emotionally abused adolescents through collaborating with concerned bodies.

**To Jimma University Psychiatric Department:** It is better to widen mental health research to Afar region and have communication with concerned bodies to save young generations.

**For researchers:** The authors recommended to have cut points of SDQ in Ethiopian context and need future longitudinal studies to confirm the conclusions obtained from this study.

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# NNEXES

## INFORMED CONSENT

### ጅም ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የ አእምሮ ህክምና ትምህርት ክፍል

#### መጠይቅ ላይ ለማሳተፍ የወላጅ ፈቃደኝነት መቀበያ ቅጽ

ውድ ወላጆች፤ በአፋር ብሔራዊ ክልል በ ሰመራ ሎጊያ ከተማ ስር በሚገኙ ከ 5ኛ እስከ 12ኛ ክፍል በሚማሩ በጉልምስናዕድሜስርባሉ-ወጣት ተማሪዎች ላይ የስሜታዊነትን እናየስነምግባርችግሮች፤ እንደሁም ተዛማጅ ምክንያቶቹን(Prevalence and Associated Factors of Emotional and Behavioral Problems among Adolescents, in Public Schools of Samara Logia town, Afar Regional State, North East Ethiopia) የሚዳስስ ጥናት ለመስራት የእርስዎ ልጅ ቀና ተሳትፎ በእጅግ ጠቀሜታ አለው። በመሆኑም የርስዎ ልጅ መጠይቁን እንድሞላልን የርስዎ ፈቃደኝነት አስፈላጊ ስለሆነ ይህን ቅጽ ልክናል። ልጅዎ በዚህ መጠይቅ ላይ የሚሰጠው/ የምትሰጠው መረጃ ለምርምር እና ለጥናት ከመሆኑም አልፎ በችግሩ ዙሪያ ለሚሰሩ መንግስታዊ እና መንግስታዊ ላልሆኑ ድርጅቶች እንደ አንድ ግብአት ከማገልገሉ እና የህክምና አገልግሎቱን ከማጠናከር ወጭ በልጅዎም ሆነ በእርስዎ ላይ ምንም አይነት ተጽዕኖ አይኖረውም። ሚስጥርን ከመጠበቅ አንጻር ይህንን ገፅ ከምርምር ባለቤቱ ወጭ ማንም አያየዉም። እባክዎን ፈቃደኝነዎን ከዚህ በታች ባለው ክፍት ቦታ ላይ ስመዎንና ስልክ ቁጥረዎን በመጻፍ ይግለፁልን።

#### እናመሰግናለን።

የ ተማሪው ስም:- .....ፊርማ.....ቀን .....

የ ወላጅ ስም:- .....ፊርማ.....ቀን.....

የ ወላጅ ስልክ ቁጥር:-.....

**JIMMÂ JAAMIQATAK QAAFIYAT MISSOH KOLLEJJIK MISINKACÂ DAYLIH  
BARITTOH EXXA**

**Esser gabatagleh idnih qangor mabbuxih cibta**

Massakaxxale xaltaniy, Qafar Agatih Rakaakayih Doolatak Samara/Logyi magaalah xiinissoh gubat raqta 5 hattô footimaak ilaa 12 hattô footima barittah tan labaatannaytô karmat geytimah yan barteenit nabsiyyaa kee meqemkaban taqabi tonnah, tohut axaw le sababitteh (**Prevalence and associated factors of emotional and behavioral problems among adolescents in public schools of Samara Logia town in Afar National Regional state, North East Ethiopia**) iyya ammuntal kusaq gexisuh ku xaylooh gabat agle kaxxa doori le. Tohih sabbatah ku xaylo esser neh kibtuh ku idnisiyyi faxxiimaamih sabbatah ta cibta rubne. Ku xaylo ta esseril yaceeh(taceeh tan xaagoyso ta kusaqaah taanfiqeemik kalah tataqbi wagsiisaak taamittah tan doolat kee doolat akke sinni massoynaanah kaxxa kaxxa ayfaf yacayuwaah yanim kee dayli ayfaf gablusaanamak iroh ku xaylo takku koo takku tû taqabi siinil makataysa. Sirri dacrisaanamih gatuk kaadu ta cibta kusaq abeek iroh num miyabla.

Ku magan iddinossem ahak gubal fakimit yan aracal migaq kee Telfoon nibro atkabuk neh baxxaqis.

GADDA GEYA!!!!

Barteeni Migaq: \_\_\_\_\_ Firma \_\_\_\_\_ Ayro \_\_\_\_\_

Xaltanîmigaq : \_\_\_\_\_ Firma \_\_\_\_\_ Ayro \_\_\_\_\_

**Jimma University Institution of Health Department of Psychiatry, Integrated Clinical and Community Mental Health, Post Graduate Research Program Questioners 2019.**

Identification number-----

Dear respondent: my name is----- Address -----

I am working as a data collector with this principal investigator in Jimma University Department of Psychiatry, which is conducting a study to assess emotional and behavioral problems among adolescents .The main objective is, to estimate prevalence and associated factors of emotional and behavioral problems among adolescents, in public schools of Samara Logia town, Afar Regional State, North East Ethiopia. Dear respondents, I would like to thank you because of your willing in taking golden time with me today. The purpose of my visit is to take information from you on the above mentioned topic. If you are willing to participate in the study, I will give you self reported questioner. Your honest answers to these questions and your continuous interest to participate in this study will help us to understand emotional and behavioral problems among adolescents in your locality better, and will eventually help in designing and implementing appropriate intervention programs to minimize the problems.

Your name and any other personal identifiers are not recorded on questioners. All the data obtained will be kept strictly using only code numbers to be accessed only by the principal investigator.

You do have the right to interrupt, clarify inconvenience and not to respond at all or to withdraw in the meantime, but your input has great value for the success of this objectives. Your honest and genuine participation in responding the questions is very important and highly appreciated.

Would you be willing to participate?

If yes, proceed. If no, thank you.

## QUESTIONNAIRES

### Part 1.Socio-demographic and adolescents related factors.

1	Age	.....
2	Sex	1. Male 2. Female
3	Marital statues	1. Single 2. Married 3. Divorced 4. Write if other .....
4	What grade are you in?	1. [5-8] <sup>th</sup> 2. [9-10] <sup>th</sup> 3. [11-12] <sup>th</sup>
5	Which religion do you follow?	1. Muslim 2. Orthodox 3. Protestant 4. Catholic 5. Other (specify).....
6	What is your ethnicity?	1. Afar 2. Amhara 3. Tigray 4. Oromo 5. Other specify...
7	Where do you live?	1. Urban 2. Rural
8	With whom do you live?	1. With parents 2. With Guardians 3. Alone
9	Are you the only children for your family	1. Yes 2. No
10	If your answer is No for question number 9, what is your birth order?	1. First 2. Second 3. Third 4. Fourth. 5. Fifth 6. Sixth 7. More than seven
11	What was your score in the first semester? Please write your rank or total score in number.	-----
12	Because of the pressure from my friends I had sexual intercourse in the past six months	1. Never 2. Only one time 3. Two or three times 4. Many times
13	Because of my interest I had sexual intercourse in the past six months	1. Never 2. Only one time 3. Two or three times 4. Many times

14	How do you feel about your body image or your physical appearance?	1. . Happy with my body 2. Not happy 3. I need to lose weight 4. I need to gain weight
15	Do you have history of mental illness which is confirmed by Doctor?	1. Yes 2. No
16	If Yes for question number 15, are you getting treatment?	1. Yes 2. No
<b>Part 2.Family related factors</b>		
1	What is your family size?	1. Two to four 2. Five to seven 3. Eight and above
2	What is your relationship looks like with your brother, sisters or guardian's children?	1. Good 2. Intermediate 3. Poor
3	Do you have negative experience in your life? E.g. sexual, physical, emotional.....	1. Yes 2. No
4	If yes for question number 4, which one	1. Sexual 2. Physical. 3. Others (specify).....
<b>Part 3.Parental related factors</b>		
1	What is your relationship looks like with your mother or guardians?	1. Good 2. Intermediate 3. Poor
2	What is your relationship looks like with your father or guardians?	1. Good 2. Intermediate 3. Poor
3	How much your parent or guardians expect from you?	1. High 2. Low
4	Are you happy with what parents or guardians offered to you? E.g. Buying cloth, books, and support in studying.	1. Yes 2.No
5	What is your parental marital status within six months	1. Married 2. Divorced 3. separated 4. widowed
6	What is your mother's or guardian's occupational status	1. Employed 2. Unemployed 3. Daily worker 4. Pastoralist 5. Merchant. 6. house wife



7	What is your father's or guardian's occupational status	1. Employed      2. Unemployed 3. Daily worker      4. Pastoralist 5. Merchant
8	How the relationship between your mother and father or guardians look likes?	1. Supportive, loving 2. only supportive 3. Quarreling 4. Write if other.....
<b>Part 4. substances use</b>		
1	Have you ever use substance	1. Yes      2. No
2	Do you use substance in the last three months?	1. Yes      2. No
3	If Yes for the above questions, what types of substance do you use?	1. Khat 2. Alcohol 3. Cigarette 4. Cannabis 5. Others (specify) .....

**Instructions:** For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of how things have been for you over the last six months.

N.o	Questions	Not True	Somewhat True	Certainly True
1	I get a lot of headaches, stomach-aches, or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I worry a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I am often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I am nervous in new situations. I easily lose confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I have many fears, I am easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	I get very angry and often lose my temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I fight a lot. I can make other people do what I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I am often accused of lying or cheating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I usually do as I am told(obedient)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I take things that are not mine from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	I would rather be alone than with people of my age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I have one good friend or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Other children or young people pick on me or bully me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I get along better with adults than with people my own age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Other people my age generally like me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1	I am restless, I cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I am constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I am easily distracted, I find it difficult to concentrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I think before I do things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I finish the work I'm doing. My attention is good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	I try to be nice to other people. I care about their feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I usually share with others, for example CDs, games, food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I am helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I am kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I often volunteer to help others (parents, teachers, children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

በአፋርክልል፣ ሰሜንምስራቅኢትዮጵያደብረት-ሎጊያከተማከ [5-12] ኛክፍል በሚገኙ እና በጉርምስና ዕድሜ ስር በሚገኙ ወጣት ተማሪዎች ላይ ተገቢነት እና ተያያዥነት ያላቸው የሰሜን እና የሰሜንምስራቅ ችግሮች መሰብሰቢያ መጠይቅ። ከማዚያ - ግንቦት 2011 ዓ.ም

መለያ ቁጥር ወይም ኮድ.....

**ክፍል 1. ሰሺዮ ግራሬ- ስነ ሕዝብ እና ጎልማሳነት ጋር ተያያዥ ምክንያቶች**

1	ዕድሜ	-----
2	ፆታ	1. ወንድ                      2. ሴት
3	የትምህርት ደረጃ	1. ያላገባ                      2. ባለትምህርት 3. የተፋታ 4. ሌላ ካለይገኛ.....
4	ስንተኛ ክፍል ነዎት?	1. [5-8]ኛ 2. [9-10] ኛ. 3. [11-12] ኛ



<b>ከ ቤተሰብ ጋር ተያያዥነት ያላቸው ምክንያቶች።</b>		
1	የቤተሰብ ብዛታችሁ ምን ያክል ነው ?	1. ከሁለት እስከ ከአራት 2. ከአምስት እስከሰባት 3. ስምንት እና ከዚያ በላይ
2	ከ ወንድሞችህ፣ ከእህቶች ወይም አሳዳጊዎችህ ልጆች ጋር ያለህ ግንኙነት ምን ይመስላል?	1. ጥሩ 2. መካከለኛ 3. ደካማ
3	በ ህይወትዎ ውስጥ አሉታዊ ተሞክሮ አለዎት? ለምሳሌ፡ ወሲባዊ፣ አካላዊ፣ ስሜትን የሚጎዱ ንግግሮች፣ ወዘተ.	1. አወ 2. የለም
4	ለጥያቄቁጥር 4 መልስ ወላጅዎን የትኛው ?	1. ወሲባዊ 2. አካላዊ. 3. ሌሎች (ለይተው ይጥቀሱ).....
<b>ከወላጅ ጋር የተዛመዱ ምክንያቶች።</b>		
1	ከ እናትህ ወይም ከ አሳዳጊህ ጋር ያለህ ግንኙነት ምን ይመስላል?	1. ጥሩ 2. መካከለኛ 3. ደካማ
2	ከ አባትህ ወይም ከ አሳዳጊህ ጋር ያለህ ግንኙነት ምን ይመስላል?	1. ጥሩ 2. መካከለኛ 3. ደካማ
3	ወላጅዎት ወይም አሳዳጊዎት ከርስዎ ምን ያክል ይጠብቃሉ?	1. ከፍተኛ 2. ዝቅተኛ
4	ወላጆች ወይም አሳዳጊዎች ላንተ/ላንቺ በሚያደርጉት አድራጎት ደስተኛ ነውት ? ለምሳሌ፡ ልብ ልብ፣ መጻፍ መግዛት፣ ማሰጠናት መንከባከብ፣ ወዘተ.	1. አዎ 2. አይደለሁም
5	በ ስድስት ወር ጊዜ ውስጥ የወላጆችዎ ጋብቻ ሁኔታ ምን ይሆናል?	1. በትዳር ያሉ 2. የተፋቱ 3. የተለያዩ 4. በሞት የተለያዩ
6	የ እናትህ ወይም የ አሳዳጊህ የሥራ ሁኔታ ምን ይመስልሃል?	1. የመንግስት ሰራተኛ 2. ስራ አጥ 3. የጉልበት ሰራተኛ 4. አረብ ተሰጥኦ አደር 5. ነጋዴ 6. የቤት እመቤት
7	የ አባትህ ወይም የ አሳዳጊህ የሥራ ሁኔታ ምን ይመስልሃል?	1. የመንግስት ሰራተኛ 2. ስራ አጥ 3. የጉልበት ሰራተኛ 4. አረብ ተሰጥኦ አደር 5. ነጋዴ
8	በ እናትና እና በ አባትዎ ወይም በ አሳዳጊዎችህ/ሽ መካከል ያለው ግንኙነት ምን ይመስላል?	1. የሚደጋገፉና እና የሚፋቀሩ 2. የሚደጋገፉ ብቻ 3. ጥል የበዛበት 4. ሌላ ካለ.....
<b>የእጅ መጠይቆች</b>		
1	አነቃቂ እጅ (ንጥረ ነገር) ተጠቅመው ያዉቃሉ ?	1. አወ 2. አላዉቅም
2	ባለፉት ሶስት ወራት ውስጥ እጅ (ንጥረ ነገር) ተጠቅመው ያዉቃሉ ?	1. አወ 2. አልተጠቀምኩም

3	ከዚህ በላይ ላሉት ጥያቄዎች መልሰው አወ ከሆነ የትኛውን አይነት ነው ? ከአንድ በላይ መመለስ ይቻላል	1. ጫት            2. አልኮሆል 3. ሲጋራ            4. ጋንጃ 5. ሌላ ካለ ይጥቀሱ.....
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**የጠንካራ-እናደካማነቶች መጠይቅ**

እባክዎን ለእያንዳንዱ መዘር ዝርዝር ይዩ 'እውነት አይደለም'፤ 'በከፊል እውነት ነው' ወይም 'በእርግጥ እውነት ነው' የሚለው ስር ካሉት ሳጥኖች በአንዱ ምልክት ያድርጉ ምንም እንኳን በፍጹም እርግጠኛ ባይሆኑ ወይም መዘር ዝርዝር ስሜት የማይሰጥ ቢመስልም፤ ለሁሉም መዘር ዝርዝሮች በሚችሉት አቅም መልስ ቢሰጡን ይረዳናል። እባክዎን የሚሰጡት መልስ በዘንድሮው የትምህርት ዘመን ባለፉት ስድስት ወራት ውስጥ የተከሰተውን ይሁን።

ተ. ቁ.	መጠይቅ	እውነት አይደም	በከፊል እውነት ነው	በእርግጥ እውነት ነው
1	ብዙ ጊዜ ራስህን፤ ሆድህን ያምህል/ሻል ወይም ያቅለሽልሻህል/ሻል	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	ብዙ ነገሮችን ትፈራለህ/ትፈራለሽ፤ በቀላሉ ድንግጥ ትላለህ/ሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	ብዙ ጊዜ ደስተኛ አይደለህም/አይደለሽም፤ ይከፋህል/ይከፋሻል ወይም እንባህ/እንባሺ ይመጣል	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	ስለ ብዙ ነገር ትሰጋህል/ትሰጋለሽ፤ በብዙ ጊዜ ትንሽ ትልቁ ያሳስብህል/ያሳስብሻል	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	አዲስ ሁኔታዎች ሲገጥሙህ/ሺ ትረባለህ ?/ትረባለሽ፤ ወላጆችህ/ትሽላይ ጥብቅ ትላለህ/ሽ፤ ወይም አልለቅም ትላለህ/ሽ፤ በቀላሉ በራስ መተማመን ታጣለህ/ታጨያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	ብዙ ጊዜ ከሌሎች ልጆች ጋር ትደባደባለህ/ትደባደቢያለሽ ወይም ጉልበት ንግድ/ጉልበት ፍንት ሽንታ ሳያለህ/ታሳያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	ከቤት፣ ከትምህርት ቤት ወይም ከሌላ ቦታ ትሰርቃለህ/ትሰርቁያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	ብዙ ጊዜ ትዋሻለህ/ትዋሻለሽ ወይም ታጭበረብራለህ/ታጭበረብራያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	ብዙ ጊዜ በጣም ተናዳጅና ግልፍ ተኛ ነህ/ነሽ (ትንፈራፈራለህ/ትንፈራፈራያለሽ፤ ትማታለህ/ትማቻለሽ፤ ትጮሃለህ/ ትጮሃያለሽ፤ ትወረወራለህ/ትወረወራያለሽ)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	በጥቅሉ ታዛዥ ነህ/ነሽ፤ በብዙ ጊዜ አዋቂዎች የጠየቁህን/የጠየቁሽን ታደርጋል/ታደርጊያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	አትደባለቅም/አትደባለቁም፤ ገለል ትላለህ/ትያለሽ፤ ለብቻህ/ሽ የመጫወት አዝማሚያ አለህ/አለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2	ቢያንስ አንድ ጥሩ ጓደኛ አለህ/አለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	ሌሎች ልጆች ይተናኮሉህል/ይተናኮሉሻል፤ ያበሽቁህል/ያበሽቁሻል ወይም ጉልበት ነገራት ተቀውረው ያሳዩህል/ ያሳዩሻል	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	ከሌሎች ልጆች ይልቅ ከአዎቂዎች ጋር በቀላሉ ትግባባለህ/ትግባቢያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	በጥቅሉ በሌሎች ልጆች ተወዳጅነት አለህ/አለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	ትንቀጥቀጥለህ/ትንቀጥቀጥለሽ፤ እረፍት የለሽ ነህ/ነሽ፤ አንድ ቦታ አርፎ መቆየት አትችልም/አትችይም	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	ያለማቋረጥ በተቀመጥክበት/በተቀመጥሽበት ቁንጠጣለህ/ትቁንጠጥጠላለሽ፤ ትጠማዘዛለህ/ትጠማዘገርያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	በቀላሉ ሀሳብህ/ሀሳብሽ ይበታተናል፤ ትኩረትህ/ትኩረትሽ አንድ ቦታ ላይ አይቆምም	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	አንድ ነገር ከማድረግህ/ከማድረግሽ በፊት ስለ ነገሩ በቅድሚያ ታስተውላለህ/ታስተውያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	የጀመርከውን/የጀመርሽውን ነገር እስከ መጨረሻ ተከትሎ ድረስ ታከናውናለህ/ ታከናውኒያለሽ፤ ጥሩ የትኩረት ስፋት አለህ/አለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	ስለሌሎች ሰዎች ስሜት ትጨነቃለህ/ትጨነቁያለሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	ለሌሎች ልጆች ያለህን/ያለሽን ነገር በቀላሉ ታጋራለህ/ታጋሪያለሽ (የሚበላ፤ መጫወቻ፤ እርሳስ፤ ወዘተ)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	ሰው ተጎድቶ፤ ከፍቶ ተወይም አሞት ስታይ/ካየሽ ትረዳለህ/ትረጃለህ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	ካንተ/ካንቺላ ሚያንሱ ልጆች ደግነህ/ነሽ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	ብዙ ጊዜ ሌሎችን ለመርዳት ፈቃደኛ ነህ/ነሽ (ወላጆች፤ መምህራን፤ ሌሎች ልጆች)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**JIMMÂ JAAMIQATA: QAAFIYAT BARITTOH EXXAK , MESENKACAT AXAW LE KILINIKAAL KEE AYYUNTAK MISINKACÂ QAAFIYATAK, NAMMEYHATTÔ DIGRIK FOKKAAQO BARNAAMIJIH ESSERI 2019 G.C**

Kilbatti Ayrô mawqah itiyoppiyak Qafar Agatih Rakaakayih Doolatak, Samara Logyi magaalak, [5-12] haytô fasli baritah yan karmak labaatannaytot yan qunxaaneyti kentaafeh tan sittat axaw le caalat kee meqem kaban taqbitte elle gaaboysan esseri.

Koox-----

**1hatto Exxa: Sinaamak manoh aydaaduu kee furraynaleh tan fantaaxawa esserisiyya.**

1	Karma	
2	Nado	1. Labih 2. Sayih
3.	Diggib caalat	1. Madigbo 2. Digbeh 3. Cabtento/ Abuuro 4. Kalah tene qaddos.....
4	Barittô caddo	1. [5-8] <sup>hattô</sup> 2. [9-10] <sup>hattô</sup> 3. [11-12] <sup>hattô</sup>
5.	Diini kok	1. Muslim 2. Ortodoksi 3. Pente 4. Kaatoolik (qaddoysa)_____
6	Kedo :	1. Qafar 2. Amcara 3.Tigre 4.Oroomo 5. Tahak kalah tanek qaddos_____
7	Ankel taqiisheeni ?	1. Magaala 2. Barri
8	Iyyalluk tani?	1. Buxâmaralluk 2. Ramadalluk 3. Dibuk an
9	Kuuna kee abbak inkittuh tani ?	1. Yeey 2. Bale
10	Malcinhattoh essrok raddih baleey ittek , makin hattô baxa kinnitto ?	1. Mirissî baxa 2. Nammeyhaytu 3. Sidochaytu 4. Fereyhaytu 5. Konoyhaytu 6. Leceyhaytu 7. Akki raddi teellek gacis.....
11	Tatre simisterik makin hattuh tewqe ? aw ximmo kok magideey sittat	.....
12	Tatre lica alsat kataysiis yoo aylahisak fidoh angaaraw abeh	1. Inkinnah bale 2. Inki adda 3. Nammay aw3 adda 4. Mango adda
13	Tatre lica alsat inni fayxiik ugutak fidoh angaaraw abeh	1. Inkinnah bale 2. Inki adda 3. Nammay aw 3 adda 4. Mango adda
14	Dagarak maca isik takkalee ?	1. Farcikan 2. Farci mayyu 3. Qakkootam faxa 4. Gablam faxa
15	Fokkaaqqol yismiten Misinkacâ biyak koo yibbixeh yaaxige ?	1. Yeey 2. Bale



16	Taban kee konoyhaytoh esserok raddi kok yeey tekkek daylimteh taaxigee ?	1. Yeey 2. Bale
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**2<sup>hatto</sup> Exxa: Buxâmarih fantaaxawa esserisiyya**

1	Ku buxah marih qadad sittat makideey?	1. 2-4 2. 5-7 3. 8 kee wohuuk daga
2	Toobokoyta/ maqanxa aw Koo yeynebe maralluk litho tan angaaraw kok maca ceela ?	1. Meqeh 2. Fana fana 3. Taqbi le
3	Manol taqabih tanim maay litoo? Ceelalloh : Caylisenta , Dagar waraa kee misinkacal	1. Yeey 2. Bale
4	Fereyhay hatto esserok Raddi kok yeey tekkek matiyaay	1. Fidoh angaarawa 2. Dagariyyo 3. Kalah tenek (baxxaqis)-----

**3<sup>hatto</sup> Exxa: xaleena fantaaxawa esserisiyya**

1	Kuuna /xaltani/luk litho tan angaaraw kok maca ceela ?	1. Meqeh 2. Fana fana 3. Taqbi le
2	Kabba/xaltani/ luk litho tan angaaraw kok maca ceela ?	1. Meqeh 2. Fana fana 3. Taqbi le
3	Ku buxah mara/xaltani/ luk kok qambaalam	1. Mangoh 2. Dagoh
4	Buxâmara/ xaltani/ koh abaanah yaniimit rufto litoo ?	1. Yeey 2. Makibbiimo
5	Lica alsih addat Ku buxah marak qasaalâ caalat, maca celtaa ?	1. Ittalih yanin 2. Itta cabeenih 3. Mariiy rikel keenik yan 3. Rabal baxsimen
6	Kuuna/xaltanik/ taamah caalat	1. Doolat taama abeyná 2. Taama mali 3. Ayrô taama 4. Dacarittoh xinta 5. Kabxaabeyná 6. Buxah iná

7	Kü abba/xaltanik/ taamah caalat	1. Doolat taama abeyna 2. Taama mali 3. Ayrô taama 4. Dacarittoh xinta 5. Kabxaabeyna
8	Kubuxah mara/xaltani/ fanih angaaraw	1. Qokol kee Kacanu 2. Qokolu 3.Sittinway- le mara 4. Akim tenek qaddos.....

**4<sup>hatto</sup> Exxa: Kaaribit fantaaxaw le esserisiyya**

1	Tamirginise tumammi tintifiqeh taaxige ?	1. Yeey 2. Maaxiga
2	Tatre sidiica alsih addat tamirginise kaarib le duyye tantifiqqe taaxige ?	1. Yeey 2. Bale
3	Ahaak dagatan esseroorak gacsi akak /raddi/ kok yeey tekkek ,maqaynataay? inkittuuk daga doortam xiqtah	1. Gaata 2. Alkool 3. Sigaara 4. Ganja 5. Akim tenek baxxaqisa.....

**Kulsaa kee qaku le gammih esserri**

Kulli tiyah bagbaggih ‘Numma hinna , Fanaafana, aw Asmatah Numma inta qarwalik inkittut asta haysa. Faxeemih asmat kak aallewaytaanamah aw roorisaanam hangi hirigtam ceelewaytaanamah , kulli tiyah dudda haytaanam gacsa taceenim nee cattah . Massakaxxaluk tacee raddi tatre lica alsa aw asanati tû barittol lito tan caalat wagsiisak takkay.

N b	Esseri	Numma hinna	Fanaafana	Asmatah numma
1	Mango adda Amo,Bagi kok biyaakita aw sakkitaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Mangoomuk warigittaa/ tu akke sinnimik meesittaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Mango adda farci mattu, tannaaqabbe aw ximo kot tamaate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Mangoomuk conxittaa, mango adda qunxaamay kaxxamah tansocoocobe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Qusbam koo taafe wak taqbittaa, buxâmarat kaffataa aw macaba intaa, sahliik sinnil kibal aalleway cabta?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mango adda aki urrunnah gabadigir abtaa aw caylaa isik taqiyyire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Buxak, barittô buxak aw aki aracak garaqtaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Mango adda dirab tacee aw badaabadissa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Mango adda kaxxa bagcarraa kee qansaritiyya lito (firgittaa/sinaamallih taame, xongaltaa,taffartimee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Kulli numuh ammirtimtaa, Mango adda kaxxa mari kokiyyem abtaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Sinaamat matangalaa, dariifah gactaa, dibuk digraanamih caalat may lito?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Dagnal inki Meqe kataysa lito?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3	Aki urri koo xagaa, koo gudaaqisaana/qadadisaana aw cayla koo yaybulleeni?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Aki urruk kaxxi kaxxa maralluk sahlík tangoorowe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Amo gexal aki urrih garil oggol lito/koo kicnoonu?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Ruftôway litoo, sabhalaale way may lito, inki aracal xikka yaanam xiqewaanam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Iital lakleh elle daffetakkel elle faxxennal makkimtaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Garciik fikrat manga lito, hangi inki aracal kok masoola?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Inkim abtak foocat woo caagid beyya gacissa haytaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Qembessem sella haytam abtaa, meqe hangi kah tacee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Gersi marih fayxih eddetascubee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Aki urruh lito h tanim sahlík keenit tabissaa axcih (Yakmeenim,digir duyye ,galamaa, wwc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Sehda biyaakittek, yossoomeenih, ken table waqdi ken cattaa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Kok Qunxa urruh miqitoo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Mango adda gersi mara cattam faxxaa axcih (Buxâmara, Barseenit, kalah urru)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Declaration**

I undersigned, declare that this research paper was my original work, has not been presented for a degree in this or other university and that all sources of materials used for this have been acknowledged.

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