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Covid-19 Preventive Practice and Associated Factors Among Secondary School Students in Enarj Enawuga District, Northwest Ethiopia: - Application of Health Belief Model

Yonass, Aemiro

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BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCE

SCHOOL OF PUBLIC HEALTH

**COVID-19 PREVENTIVE PRACTICE AND ASSOCIATED
FACTORS AMONG SECONDARY SCHOOL STUDENTS IN ENARJ
ENAWUGA DISTRICT, NORTHWEST ETHIOPIA: - APPLICATION
OF HEALTH BELIEF MODEL**

BY: YONASS AEMIRO (BSC)

**A THESIS SUBMITTED TO DEPARTMENT OF HEALTH PROMOTION AND
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HEALTH PROMOTION AND BEHAVIORAL SCIENCE**

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BAHIR DAR UNIVERSITY COLLEGE OF MEDICINE AND
HEALTH SCIENCE SCHOOL OF PUBLIC HEALTH DEPARTMENT
OF HEALTH PROMOTION AND BEHAVIORAL SCIENCE
COVID-19 PREVENTIVE PRACTICE AND ASSOCIATED FACTOR
AMONG SECONDARY SCHOOL STUDENTS IN ENARJ
ENAWUGA DISTRICT, NORTHWEST ETHIOPIA, APPLICATION
OF HEALTH BELIEF MODEL

NAME AND ADDRESS OF INVESTIGATOR:

YONASS AEMIRO AWOKE (BSC)

CELL PHONE: +251912332893

E-MAIL: yonassaemiro18@gmail.com

NAME AND ADDRESS OF ADVISORS:

1. YOSEF WASIHUN (BSC, MPH/ HP)

E-MAIL: yosef511943@gmail.com

2. HORDOFA GUTEMA (BSC, MPH/ HP, ASSISTANT PROFESSOR)

E-MAIL: pthordeg@gmail.com

STUDY AREA: ENARJ ENAWUGA DISTRICT, NORTHWEST ETHIOPIA.

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Abstract

Background: Corona virus disease 2019 is a pandemic disease caused by a ribonucleic acid virus that belongs to the family of Corona virus. It is a challenge for both developed and developing countries. Over 135 million COVID-19 cases and 2.9 million deaths were reported globally up to April 11/2021. Washing hands with soap and water regularly, not touching nose, mouth, and eyes covering mouth and nose when coughing and sneezing, and wearing face masks, social distancing, and good ventilation are the ways WHO-approved to prevent the spread of COVID19.

Objective: The objective of this study was to assess COVID -19 preventive practices and associated factors among secondary school students' in the Enarj Enawuga district.

Methods: An Institution-based cross-sectional study was conducted on 350 students selected by using simple random sampling from March 15 to April 13/2021. Data collected by using a structured interviewer-administered questionnaire, entered into Epi-data version 3.1 and exported to SPSS version 25 for analysis. Bivariate analyses used to identify variables for multivariable logistic regression and those variables with p-values less than 0.25 used for the final regression model. Adjusted odds ratio at 95% CI and a p-value < 0.05 considered with the association between dependent and independent variables.

Result: 350 students were participated in this study and the overall COVID-19 preventive practice was 19.4% (95% CI: 15.5%, 23.8%). Urban resident [AOR=2.3, 95%CI (1.05, 5.0)], being married [AOR=4.63, 95%CI :(1.31, 16.37)], perceived severity [AOR=1.42, 95%CI (1.26, 2.1.6)], perceived benefit [AOR=1.23, 95%CI (1.10, 1.38)], and barriers to prevention practice [AOR=0.86, 95%CI (0.81-0.93)] were significantly associated factors for preventive practice.

Conclusion: A preventive practice of the participants regarding COVID-19 preventive measures was very low. Students' urban resident, married, perceived severity, perceived benefit and perceived barriers were identified factors that associated to COVID-19 preventive practice of students. Emphasize the severity of COVID-19 and implications or benefits of preventive practice for students to enhance their practice.

Key words: COVID-19, prevention practice, Enarj Enawuga secondary school, Northwest Ethiopia

ACRONYMS

COVID-19	Corona virus disease 2019
HBM	Health Belief Model
MERS	Middle East respiratory syndrome
nCov	Novel corona virus
SARS	Severe acute respiratory infection Syndrome
WHO	World Health Organization

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1. INTRODUCTION

1.1 Background

Coronavirus disease 2019 (COVID-19) is caused by a new coronavirus that was first identified in Wuhan China, in December 2019. Severe acute respiratory syndrome (SARS) remains one of the leading causes of mortality around the world. This pandemic disease is caused by the ribonucleic acid (RNA) virus that belongs to the family of coronavirus which was a challenge for both developed and developing countries(1).

The new Corona virus was identified as the cause of the acute respiratory disease in humans since the end of December 2019(2019-nCoV), later labelled as severe acute respiratory syndrome corona-virus and declared this outbreak as a global pandemic by World Health Organization (WHO) on March 11, 2020(2). It is another strain of the Corona virus from SARS and Middle East respiratory syndrome coronavirus (MERS CORONA viruses)(3).

The 2019-nCoV is considered a relative of the deadly SARS and MERS coronaviruses, both of which are characterized by flu-like symptoms, including fever, cough, and shortness of breath causing breathing difficulty and direct person to person transmission is the primary means of transmission and can transmit from animals to humans(4).

COVID-19 is the third CoV outbreak in humans that occurred in the last two decades (5). The global mortality rate is about 5.7% (6). Patients with underlying conditions like diabetes mellitus, hypertension and cardiovascular disease were severely affected(7).

Countries around the world had been taking broad public health and social measures, including movement restrictions, partial closure or closure of schools and businesses, quarantine in specific geographic areas and international travel restrictions to prevent the spread of COVID-19. When transmission intensity becomes declines, some of them began gradually reopen, schools and workplaces to maintain economic activity. This requires strong protective measures, including promoting and enable WHO standards for COVID-19 prevention in terms of physical distancing, hand washing, wearing a face mask and thermal monitoring, ventilate the room as well as monitoring compliance with these measures(8).

Public health measures against COVID-19 such as wearing facemask were taken by considering their age and risks in the educational setting. Moreover, to prevent COVID-19 comprehensive and multi-layered measures should have in a school setting(9).

WHO has made an assessment that COVID-19 could be characterized as a pandemic and the virus has now spread to many countries and territories and still unknown about the virus that causes COVID-19 and the virus is transmitted through direct contact with respiratory droplets of an infected person. Individuals can also be infected by touching surfaces contaminated with the virus and touching their faces (eyes, nose, and mouth)(10). As WHO suggests that improving hand hygiene practice can reduce pathogen transmission by 50% (11).

Eventually, there was some vaccine proposed for the prevention of COVID-19 in different countries still now neither addresses vaccine for all communities nor definitive treatment has been found for the disease so far in our country, and the treatments are symptomatic and supportive. Minimizing the risk of SARS-CoV2 transmission within the school and school-associated settings among children, teachers and other school staff should be assured. Washing hands with soap and water regularly, not touching nose, mouth, and eyes covering mouth and nose when coughing and sneezing, and wearing face masks, social distancing, and good ventilation are the ways WHO-approved to prevent the spread of COVID19 (12).

The health belief model gives attention to the individual level factor that is important to the way behaves. It focused on personal beliefs in health problems and beliefs on benefits and barriers to preventive measures (13). To perform preventive measures individuals must be perceived, as they were susceptible, the severity of disease and benefits of action taking. The objective of this study was to assess the preventive practice against COVID-19 among secondary school students in Enarj enawuga district, northwest Ethiopia by applying the health belief model.

1.2 statement of the problem

Currently, this novel corona virus hit the world, the fast spread, and fatality rate of COVID-19 has sent shockwaves across the world. The highly contagious properties of COVID-19 make the disease even more dangerous, leading to a high mortality rate and rapid spread of the viruses from China to more than 219 countries around the world(14).

According to the WHO report, there were over 135 million cumulative cases and over 2.9 million deaths globally and in Africa, over 3 million confirmed cases and over 79 thousand death recorded. As well as in Ethiopia after the first case of COVID -19 was detected on 13 March 2020, there were over 227 thousands of confirmed COVID-19 cases, and over 3 thousand deaths were recorded with a case fatality rate of 1.3% up to 11 April 2021(15). In the Amhara region, there were 8967 confirmed cases and 201 deaths with a case fatality rate of 2.2% was reported up to April 11, 2021(16).

The impact COVID-19 outbreak in Africa including Ethiopia is expected to be more catastrophic than in developed countries in which the health system and population size might worsen health impacts (17). The adherence of the community to the recommended preventive measures of COVID-19 in Ethiopia becomes low and the spread of the virus is increasing. Public resistance to recommended prevention strategies like social distancing, frequent hand washing, staying at home, and wearing face mask are the main obstacles to stopping the spread of COVID19 (18).

While COVID-19 in most cases has been affecting public health, also it spills over consequences that can already be found in schooling, stemming in large part from prolonged school facility closures(19).

World wide spread of COVID-19 had been costing in terms of humans and to the public health system to cope with the holocaust of this pandemic disease. This crisis affects the students in which they had been experiencing anxiety, interrupting the continuity of learning, safety and legal status of international students, student's perception of the value of studying abroad and substitution of teaching by remotely which was a poor substitute for the experience of studying abroad(20, 21).

In Ethiopia over 30 million students, in which one million learners in 50 public universities and 250 private academic institutions were identified as potential sites for disease transmission and halts their teaching process(22).

During the COVID-19 pandemic WHO advised individuals to take responsibility and adhere to preventive measures. Despite this prevention and control measures taken by the government of Ethiopia regarding the threat of public health, but still, there was an outbreak occurrence including major life loss and economic crisis and if the community is not able to shape regular behaviour and socio-cultural norms that have the potential to facilitate disease transmission(23). Most Ethiopians lived in crowded spaces that would facilitate the spread of the disease. Social environment and COVID-19 interaction had an unequal burden on most disadvantaged society(24).

From easy transmission of this pandemic disease, students would be liable to the fatal COVID-19 and cases would occur among close contacts of the first school's cases and to other schools, friends, student's family members and school staff. The frequency of outbreaks in secondary/high schools was high compared to in primary or elementary schools(25). There was an alarming sign in Israel when prevention measures become weak in high school students in which 13.2% of teenage students and 16.6% of staff members were infected immediately by COVID-19 after reopening of schools(26).

Most households of Ethiopia had poor hand washing practices in which a small proportion of households wash their hands with water and soap persistently(23).

Still now, in Ethiopia primary and secondary schools students not assessed for COVID 19 preventive practices after reopening of schools. Most studies conducted on towns or cities in which susceptible areas for imported cases and focus on employees like health institutions that neglect the rural communities. Although data collection methods of previous studies were by use of online electronic devices like telegrams, it needs smartphones and internet that might not be applicable for students in rural communities to participate in the study. As a result, there was a possibility of bias, as populations might not have been able to participate in the study.

Those studies had limitations that could not address students, whether they used the COVID-19 prevention methods consistently or not, their awareness, knowledge status towards COVID-19, resources availability and their perceptions towards COVID-19 was not assessed and the study participant was different from early studies. This was the first study in Ethiopia to assess determinants and levels of COVID-19 prevention practice at the secondary school level by using the health belief model. Due to the severity of this major outbreak, this study aimed to assess COVID -19 prevention and associated factors that restrict or promotes the prevention measures

among students of Enarj Enawuga district secondary school students by using the health belief model.

1.3 Significance of the study

The finding of this study would provide information to the responsible body about prevention status and perceptions of the student to this pandemic disease. It helps to identify and prioritize the interventions on students towards COVID-19 prevention. Further, it would provide relevant information for concerned bodies and policy makers to develop evidence-based interventional strategies.

In addition, the study would give insight for researchers to identify other factors to student's perception and prevention modality.

2. Literature review

2.1 COVID-19 preventive practices

In case of the occurrence of emerging infectious diseases, it is common for individuals to take preventive actions. In particular, the public takes the government's recommended behavior as the standard. According to Jose et al 2020, when asked whether various activities imposed by the government could be considered cues for people to change their behavior, 80% felt that the government had helped them implement behavioral changes. Public response and compliance with pandemic regulations existed even before COVID-19 (27).

Knowing preventive practice and factors towards Covid-19 among students can play a great role in the prevention of the disease (28).

According to a study done in Mexico City by Irigoyen-Camacho International journal of environmental research and public health, 57.6% of the most common preventive measures were staying at home followed by hand washing (53.4%), use of alcohol-based hand sanitizer and cleaning and disinfection of household as preventive measures were adopted by 22.6% and 21.8% respectively. About 16.6% did not adopt any preventive measures against infection (29).

In another cross-sectional study conducted in Cameroon during the exponential rise of COVID-19, stated that 60.8% of the community had a good practice(30). A cross-sectional study conducted to assess covid-19 prevention in students of Ghana due to the students becoming positive after reopening of schools only 31.5%, students wore a facemask and 50% of the students did not practice hand washing/hand sanitizing and social distancing. Also, other studies showed among students of Ghana 68% of students had good preventive practice (31, 32), and studies in Bangladesh similar studies showed 98.7% were wearing face masks (33).

According to a cross-sectional survey conducted on educated Ethiopians by online interview showed that there was good COVID-19 preventive practice which was 54% and about 88.8% were washing their hands for 20 seconds at 20 minutes intervals, 75% of them have avoided touching their eyes, nose, and mouth with unwashed hands and 40% of them wore facemasks (34). In another online cross-sectional study done on the residence of Ethiopia stated that 76% of them didn't wear a face mask(35). A cross-sectional study conducted in Addis Ababa showed 31.2% of employees practiced the COVID-19 prevention(36).

2.2 Modifying factors for covid-19 prevention

2.2.1 Socio-demographic factors

Many socio-demographic factors affect COVID-19 preventive practice, such as age, sex, marital status, residence, etc. in previous studies. The preventive practice of women against COVID-19 was higher than men; probably men have other life concerns than spending time following the preventive measures. According to the study conducted on prevention practice on coronavirus disease in Egypt, women were more motivated for health than men whereas the performance of preventive behaviours against COVID-19 was higher in urban residents than rural (37). Studies showed that COVID-19 preventive practice was different among the marital status of Japans in which married population had good preventive practice due to the concern of their families and to society(38).

A cross-sectional study conducted in Northern Iran on prevention from COVID-19 found that people living in urban areas showed better prevention against the disease than people living in rural areas (39).

According to a cross-sectional study done on College students in Amhara region by Abay Woday, et al. late adolescent age 16-20 years were twice more knowledgeable than ages greater than 20 years, single students had 2.3 times greater knowledge than married and students who had been living in urban had good COVID-19 preventive practice that was 3 times greater than rural residence (40).

2.2.2 Source of information

According to a study conducted in Mexico City, 67.6% used television as a source of COVID -19 information, while radio was mentioned by less than one-third of the participants and also 18.8% used friends and family as a source of information, 11.6% used the internet or social media to get information about the pandemic(29).

2.2.3 Knowledge on COVID-19 prevention

A study in Mexico showed that fever was identified by 57.9% and cough 47.1% while 12.1% did not know COVID -19 symptoms. In addition, 76.3% could describe three or more symptoms while 11.6% could describe only one or two symptoms and about 69.5% correctly identified older adults as the high-risk age group. The educated individual had better knowledge of COVID-19 than less educated individuals (29).

A cross-sectional study in Hong Kong, regarding the overall knowledge and understanding of COVID -19, recognizes that the disease could be transmitted by droplets, direct or indirect hand contact, and contact with asymptomatic patients. About 24%, 16% and 10% of the respondents did not believe that asymptomatic patients, direct hand contact and indirect hand contact (via door handling) could transmit the disease, which could affect the use of appropriate practices. Individuals with higher levels of education were more likely to correctly identify whether asymptomatic patients could transmit the virus (41).

A cross-sectional study of COVID -19 Prevention Practices in Addis Ababa, found that 60.5% were aware of how COVID -19 disease is transmitted from person to person, risk factors, and prevention and control mechanisms (42) and another study showed that 55.9% had the knowledge and about 55.3% and 57.8% had good knowledge about symptoms and prevention methods of COVID -19 respectively. The three symptoms most commonly reported by the respondents were fever 96.8%, shortness of breath 94.3% and cough 94.1%((43). In another study conducted on college students, 69.6% of them had good knowledge of COVID-19(44).

2.3 Health Belief Model constructs as a predictors of COVID-19 prevention

The health belief model (HBM) was developed in the 1950s in the U.S public health service to explain the widespread failure of people to participate in programs to prevent and detect disease(45). The HBM predicts why people will take action to prevent, screen for, or control disease conditions(13). This model aims to explain preventive health behaviours rather than behaviours in time of illness, so that by using HBM constructs in the prediction of COVID-19 prevention practice.

2.3.1 Perceived susceptibility

Perceived susceptibility refers to beliefs about the likelihood of getting a disease or condition. Perceived risk of contracting a disease refers to individual's subjective perception of their susceptibility to the disease(45). The HBM predicts that the student will be more likely to adhere to COVID-19 prevention strategies' recommendation if they feel that they are susceptible to COVID-19. Kwok et al. investigated the early stages of COVID-19 in Hong Kong of China and found that the individuals had higher perceived susceptibility of COVID-19 so that 89% that they were at risk for COVID-19(46).

Prati et al(47) found that those who assess the risk of pandemic infectious diseases as more probable, more severe, more serious, or having a greater personal impact, are more likely to comply with health-related recommendations. According to a study conducted in Sudan to determine the Sudanese perceptions of COVID-19 using the HBM they had low perceived susceptibility which was 45%(48). In Ethiopia a study by Diress et al on Perceived efficacy of COVID-19 prevention measures and intention to use among chronic disease patients, 37.7% had low perceived susceptibility but did not show the significant association between COVID-19 prevention practice and perceived susceptibility and the sample was not representative to the community (42). Another study done in the northern shoa zone, Ethiopia shows that 44.8% perceived themselves as susceptible to COVID-19(18).

2.3.2 Perceived severity

Perceived severity refers to the assessment of the severity of a health problem and its potential consequences. The health belief model proposes that individuals who perceive a given health problem as serious are more likely to engage in behaviour's to prevent the health problem(49).

In the case of COVID -19, participants are more likely to use COVID -19 prevention strategies if they consider it to be a serious illness and believe that contracting COVID -19 would have serious medical, social, and economic consequences for them. Kwok et al. also investigated the early stages of COVID-19 in Hong Kong of China and found that the individuals had higher perceived severity of COVID-19, that was 97% said that COVID-19 had severe symptoms and significantly associated with adherence to preventive practice (46, 50). Studies showed in Korean general population when perceived severity increased there was an increase in adherence to protective measures against the COVID -19 pandemic(51). As Global health studies, the perception of people to the severity of disease-associated with adherence to preventive measures(52) and studies among higher education students in Portugal showed when their perception to this severe disease increases they adhered to preventive practice(53). According to an Iranian study, 72.6% of the people considered the disease dangerous but did not show any significant relationship in predicting the preventive practice from COVID-19 (39). A cross-sectional study done in Ethiopia for predicting COVID-19 prevention to employees in Addis Ababa 53.7% of them perceived severity to coronavirus infection(36).

2.3.3 Perceived benefits

Perceptions such as the effect of regular hand washing, wearing of facemask should lead to

high-perceived benefits and are thus strong motivators to take preventive measures against this disease. Studies in China showed that when the perception of precautionary measures benefit increases, the adherence level of peoples to covid-19 preventive practice increased(50).

Studies showed that the perceived benefits had positive relationships with the performance of preventive behaviour so that, the individual's performance becomes better by increasing the perceived benefits (54, 55). According to research on the influence of health belief model on COVID-19 prevention perceived benefit to preventive measures was associated to hand washing practice(56), studies on employees in Addis Ababa, 50.3% of them had low perceptions about the benefit of coronavirus infection prevention practice and 49.7% had high perceived benefit(36). In a similar study conducted in Northern Shoa by Sisay Shewasinad et al 72% of them have perceived the benefit of preventive practice(18).

2.3.4 Perceived barriers

A perceived barrier to action refers to the negative aspects of health-oriented actions that serve as barriers to action and/or create or incur incentives to avoid action. A perceived barrier to action refers to the potential negative aspects of specific health-oriented actions that may act as barriers to performing the recommended behaviours. Thus combined levels of susceptibility and severity provide the energy of force to act and the perception of benefits (minus barrier) provides a proffered path of action(45).

For the case of COVID-19, if the student believes that the anticipated benefit of preventing COVID-19 outweigh the barriers to or cost of the preventive practice, they are more probably to adhere to COVID-19 prevention. The rate of preventive practice increased by decreasing perceived barriers. Excessive barriers can be obstacles and prevent the initiation of desired practice. A cross-sectional study showed in Egypt, they had fewer perceived barriers to preventive practice, such as hand washing, but environmental barriers such as shortage of masks, alcohol pads, and disinfectant agents were strongly influence(57). According to research done in India on analysing barriers for implementation of public health and social measures to prevent the transmission of COVID-19 disease, lack of resources was the main barrier against the successful practicing followed by poor communication between health professionals and the public(58). In a community-based cross-sectional study conducted in Shoa, 55.6% had no barriers to preventive practice but the association showed that individuals who had no barriers to preventive practice had positively associated with poor preventive measures(18).

2.3.5 Cues to action

Several health belief model information is included in the concept of cues that can trigger action. Individuals would be more likely to take up preventive behaviours such as hand washing if reminded by others such as friends, teachers, media, their families, and health care providers. Written materials used as a call to action. Certain educational materials like brochures, community newspapers were used as cues to action. Cue-to-action was positively associated with two precautionary behaviours, including social distancing and hand sanitizer (54).

Perceived susceptibility and perceived severity also considered as cues to action since individuals who believed they are at low risk of developing a COVID-19 are more likely to engage in unhealthy, or risky, behaviour's like not wearing a face mask, unable to keep social distancing (59). Cross-sectional study in Addis Ababa, low cues to action and low level of self-efficacy were practiced COVID prevention measures to a lesser extent compared to those with high cues to action and high level of self-efficacy (42).

2.3.6 Perceived self-efficacy

Perceived self-efficacy defined as the belief that one can successfully perform the required behaviour to achieve the desired outcome and perceive them as competent (self-efficacious) to overcome perceived barriers and take action. For instance, students should be confident that they could practice COVID -19 preventions regularly. A study conducted in Saudi Arabia on COVID-19 prevention measures by using HBM perceived self-efficacy had a positive correlation to recommended prevention methods (60). According to a cross-sectional study conducted in Northern shoa on preventive measures to COVID-19 disease, they had self-efficacy of 64% to preventive practice and positively associated to COVID-19 preventive measures (18).

2.4 Conceptual framework of COVID-19 prevention practice

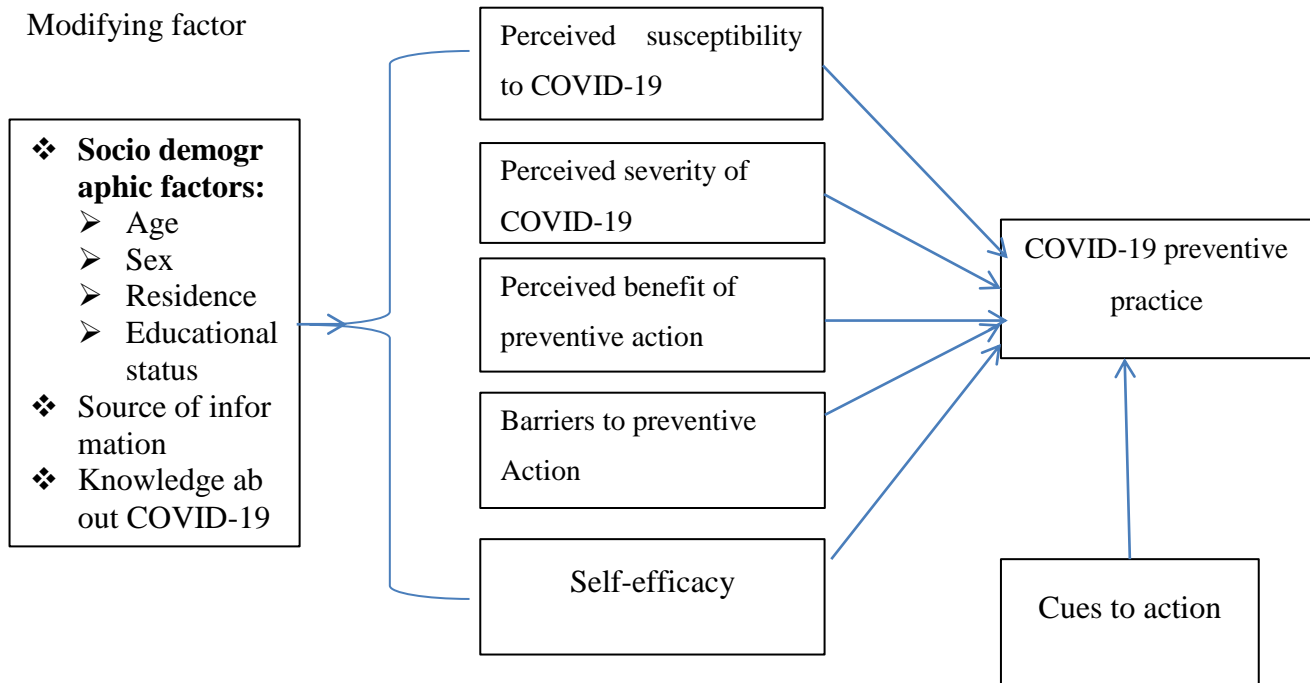


Figure 1: Conceptual framework of COVID-19 prevention practice (56, 61)

3. OBJECTIVES

3.1 General objective

- To assess COVID-19 prevention practice and associated factors among secondary school students in Enarj Enawuga district, East Gojjam, Amhara Ethiopia 2021.

3.2 Specific objective

- To assess COVID-19 prevention practice among secondary school students in Enarj Enawuga district, East Gojjam, Amhara Ethiopia 2021.
- To identify factors associated with COVID-19 prevention practice among secondary school students in Enarj Enawuga district, East Gojjam, Amhara Ethiopia 2021.

4. METHODS AND MATERIALS

4.1 Study Designs

An institutional-based cross-sectional study was conducted.

4.2 Study Area and Period

The study was conducted in Enarj Enawuga district secondary school from March 15 to April 13/2021. The district is located 298 kilometers far from Addis Ababa, 192 km from Bahir Dar Amhara region and 115 km from Debre Markos, a capital city of East Gojjam Zone.

A district had 28 kebeles', seven health centers, one primary hospital, 27 health posts and 10 private health facilities to give service for 218,257 total populations. The rural population accounts for 89% of the district's total population. There were four governmental secondary schools found in the district which are Debre work which is found in the town of a district, Felege Birhan, Meteya and Tenguma with a total number of students of 9879 in which 4655 males and 5224 females (62). In each school, they had HIV/AIDS, Gender, health education clubs and information communication technology (ICT) centers that help the students to increase awareness about health and health-related issues.

4.3 Population

4.3.1 Source population

All students enrolled in Enarj Enawuga district secondary school were the source population.

4.3.2 Study population

All enrolled students who were learning in Enarj Enawuga district secondary school.

4.4 ELIGIBILITY CRITERIA

4.4.1 Inclusion criteria

- Students' who have been learning at data collection time in the district secondary school.

4.4.2 Exclusion criteria

- Those students who were severely ill were excluded from the study

4.5 Study Variables

4.5.1 Dependent Variable: COVID-19 Preventive practice

4.5.2 Independent variables;

Socio-demographic variables; Sex, age, resident, marital status, religion, grade level, father or guardian educational status, father or guardian occupation, mother or guardian educational status, mother or guardian occupation. Source of information, knowledge about COVID-19, perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cues to action, and self-efficacy.

4.6 Operational Definitions

Preventive Practice: after sum up of each score, those individual's prevention practiced 80% and above considered as had good preventive practice and scores below 80% considered as had poor COVID-19 preventive practice(33, 36, 63).

Knowledge of COVID-19: After sum up of total items, the highest score indicating better knowledge about COVID-19.

Perceived susceptibility: After sum-up of all perceived items in which highest score indicating high-perceived susceptibility to COVID-19.

Perceived Severity: scores approaching maximum score considered as having a high perception of the severity of the disease.

Perceived benefits: score approaching maximum score considered as having a high perception of benefit of COVID-19 prevention.

Perceived barriers: Scores approaching the minimum sum scores were consider as a low perceived barrier and the maximum sum scores considered as had high-perceived barriers to COVID-19 preventive practice.

Cues to action: scores approaching maximum sum-score considered, as had high cues to action and scores approaching to minimum sum-score considered as low cues to action.

Self-efficacy: was the confidence of the individual to take appropriate WHO-recommended measures to prevent COVID-19. Maximum sum score considered as had higher self-efficacy and low scores considered as low self-efficacy to preventive measures.

4.7 Sample Size Determination

Sample size was determined by using single population proportion formula by considering the following assumptions: level of COVID-19 prevention practice in the previous study=

31.2%(36). Margin of error (d=5%), and 95% CI (standard z = 1.96) corresponding to 95% CI ($Z\alpha/2$), and 10% non-respondent rate: the final sample size $n = (Z\alpha/2)^2 \cdot pq/d^2 + 10\%$ non-respondent rate.

$n = (1.96 \times 1.96 \times 0.312 \times 0.688)/0.05 \times 0.05 = 329$, But there were total of 9879 students which was less than 10,000, so use population correction formula

$n/(1+n/N) = 329/(1 + 329/9879)=318$ then add 10% non-respondent rate

Considering 10% non-response rate total sample size $n=318+32=350$

Where n= estimated minimum sample size, Z = level of confidence interval, at $\alpha = 0.05$

P= population proportion and W= marginal error

The sample size for the second objective was calculated from statistically significant factors of previous studies on COVID-19 prevention and associated factor(36).

Table 1: Sample size determination for associated factors using statically significant factors by Epi-info-STAT CALC

Variables	Proportion		AOR	Sample size calculated	Non response rate (10%)	Final sample size
	Exposed group	Non-exposed group				
Perceived barrier	80	18.3	0.03	26	3	29
Cues to action	49.8	13.8	0.05	62	6	68
Perceived Self-efficacy	49	14.9	0.08	68	7	75

The required sample size was 350, which was larger than the sample size calculated from significant factors.

4.8 Sampling procedure

The study participants had selected by simple random sampling techniques. There were 9879 students from grades 9 to 12 in the Enarj Enawuga district. Three hundred fifty students was the calculated sample size. The proportional sample allocation method was used to get the required sample size from each grade level. To get the required samples from each grade level after determining the required size, listing all sections of student lists from each grade and a simple

random sampling technique was employed to get the study participant from lists of each school's registrar offices.

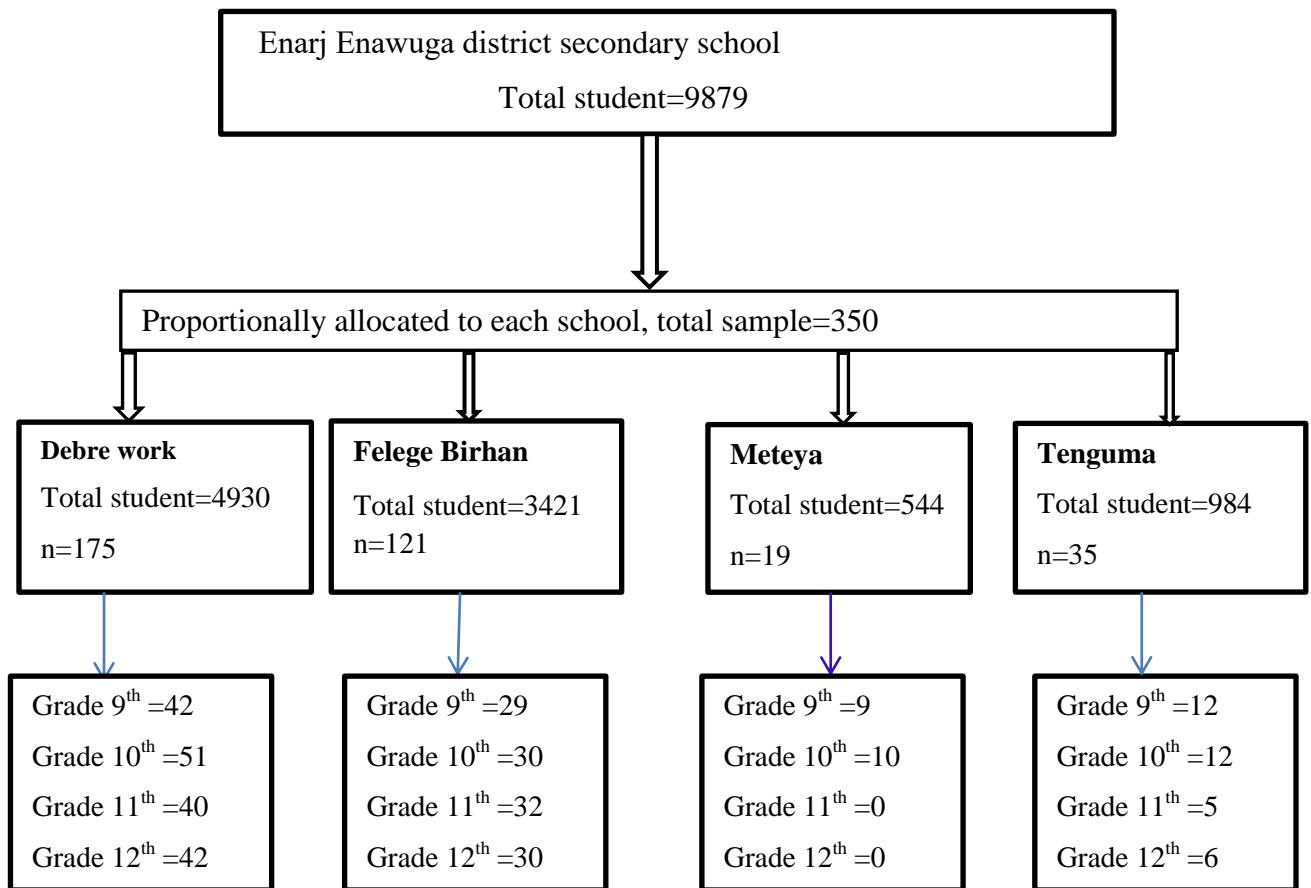


Figure 2: Schematic presentation of sampling techniques used to select study subjects from Enarj Enawuga district secondary school, 2021

4.9 Data Collection and Measurement

Interviewer administered questionnaire was used to collect the data. The questionnaire included socio-demographic, source of information, students' knowledge to COVID-19, perception related questions and questionnaires were adapted (18, 39, 64) and modified into a local context. The knowledge of students to COVID-19 was measured by 17 questions include symptoms, means of transmission, treatment and prevention methods. After reversed of negatively worded questions, individual response 1 was coded for Yes and 0 was coded for No & I don't know responses and summed up and weighted out of seventeen. Then this weighted score presented as a continuous variable used for analysis.

Perceived susceptibility to COVID-19 was measured by using seven items with five-point Likert scale response options from strongly disagree to strongly agree. Negatively worded items reversely coded and summed up with 7 and 35 minimum and maximum scores respectively and used for analysis.

Perceived severity to COVID-19 was measured by asking five questions and describes their level of agreement by five points Likert scale. Subscale scores obtained by summing item scores, minimum 5 and maximum 25 and used for analysis as a continuous variable.

Perceived benefits to preventive practice were measured by 9 positively and negatively coded item questions and describe their level of agreement by five-point Likert scale with a minimum of 9 and a maximum of 45 scores and used for analysis.

Perceived barriers to preventive practice were assessed using 9 positive and negative question items including accessibility, affordability with a five-point Likert scale with a minimum score of 8 and a maximum score of 40 from strongly disagree to strongly agree on response and used for analysis as a continuous variable.

Cues to action measured by four-item positive and negative yes or no questions and scores were summed up with a minimum of zero and maximum of 4 scores.

Perceived self-efficacy was measured by 5 positive and negative item questions with five-point Likert scale response options and scored from 1 to 5 strongly disagree, disagree, neutral, agree, and strongly agree. Scores were obtained by sum-up items with a minimum of 5 and a maximum score of 25.

COVID-19 prevention practice was measured by 10 positive and negative item questions in which a response category of the correct answer was scored 1, incorrect and I don't know answer scored 0 with a minimum score of zero and maximum sum scored of 10.

The data was collected by four college completed clinical nurses and one health officer as supervisor.

4.10 Data processing and analysis

Data were checked for completeness, consistencies and it was cleaned, coded and entered into Epi data version 3.1 and exported into SPSS version 25 for analysis. Descriptive statistics were

computed to describe participants' socio-demographic characteristics; continuous data were reported as mean \pm SD and percentages (frequencies) for categorical data.

Bivariate analysis was done to identify candidate variables for multivariable logistic regression. Those variables with a p-value less than 0.25 during the bivariate analysis were used for the final multivariable logistic regression model. Model fitness was checked by Hosmer and Lemeshow test ($p=0.607$). The extent of multicollinearity between independent variables was measured using variance inflation factor (VIF) which was within a tolerable range (less than 10). Adjusted odds ratio (AOR) with 95% confidence intervals was used to show an association between explanatory variables and dependent variables. In the final model, confidence interval (95%) and a p-value < 0.05 was considered as had association between dependent and independent variable.

4.11 Data quality assurance

The questioners were translated from English to the local language (Amharic) and re-translated back to English by another translator to check the consistency of the questioners. It was pretested on 5% related participants in Bichena district, which is found 27 km far from the study area before conducting the original one. The training was given to data collectors and supervisors for one day about data collection tools and how to collect data, to have common understandings. Each day questionnaires were checked for completeness during data collection. Data were cleaned and checked for completeness before analysis. Scale reliability analysis was performed by calculated Cronbach's alpha value which was >0.7 .

4.12 Ethical Consideration

Ethical clearance was obtained from the Institutional Review Board of Bahir Dar University, College of Medicine and Health Sciences, School of Public Health. Study participants were informed about the purpose of the study and finally verbal and written informed consent was obtained from those aged 18 years and above. For those students, their age less than 18 years obtained ascent from their family before data collection. Respondents were not identifying by their name and the participant had the right to discontinue the participation at any time. Confidentiality of the information was assured from all the data collectors and principal investigators side. An official letter was given to concerned bodies and a Permission letter was taken from Enarj Enawuga education office.

5. RESULTS

5.1 Socio-Demographic Characteristics

A total of 350 secondary school students participated in this study of COVID-19 prevention practice with a response rate of 100%. Out of 350 participants, 196(56%) were males.

All respondents were in the youth age group, which is 15 to 24 years and the mean age was 19.21 with SD \pm 1.53 years. From the total study participant, 195(55.7%) were grade nine and ten students and the remaining were preparatory students. (Table 2)

Table 2: Socio-Demographic Characteristics of Participants on COVID-19 Preventive Practice in Enarj enawuga District, Northwest Ethiopia, 2021. (N=350)

Variables	Categories	Frequency	Percentage
Sex	Male	196	56
	Female	154	44
Residence	Rural	203	58
	Urban	147	42
Marital status	Single	297	84.9
	Married	27	7.7
	Divorced	26	7.4
Participants Grade	Grade 9th	92	26.3
	Grade 10th	103	29.4
	Grade 11th	77	22
	Grade 12th	78	22.3
Religion	Orthodox	324	92.6
	Muslim	26	7.4
Occupation of the participants' father	Farmer	213	61.4
	Self-employed/business	87	25
	Government employment	47	13.5
Occupation of the participants' mother	Farmer	206	59
	Self-employment	77	22
	Government employed	39	11.2
	Other (house wife.....	26	7.5

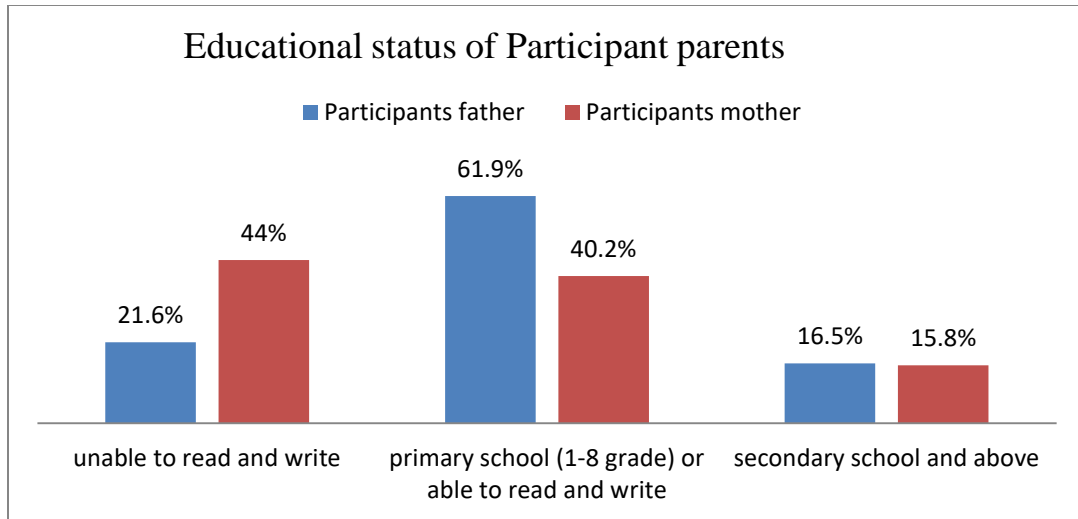


Figure 3: Educational Status of Participants' Father and Mother in Enarj Enawuga District, 2021

5.2 Source of information

All (350) respondents have heard about COVID-19 related information. They got information about COVID-19 from new Media like television and radio, from families, friends and health care workers as well as from social Media like Facebook.

The most frequently mentioned sources of information regarding COVID-19 were 221 (63%) from their friends and their trusted source of information was government media 311 (88.9%). Only 46(13.1%) of respondents were trusted social media like Facebook. See table 3

Table 3: Sources of Information for Participants on COVID-19 Preventive Practice in Enarj Enawuga District, Northwest Ethiopia, 2021. (N=350)

Source of information	Frequency	percentage
Radio	202	57.7
Television	181	51.7
Health care workers	199	56.8
Social media/internet	64	18
Friend	221	63
Other sources	19	5.4
Government media their Trusted source of information	311	88.9
Private media Trusted source of information	92	26.3
Health care workers Trusted source of information	248	70.9
Social media trusted source of information	46	13.1

5.3 Knowledge on COVID-19 prevention

The mean value of knowledge score of participants was 12.75 with an SD of ± 2.43 and they had 5 and 17 minimum and a maximum score of knowledge respectively. More than half 194(55.4%) of the respondents considered as fever, shortness of breath, or breathing difficulties and dry cough as the main symptom of COVID-19 whereas 139(39.7%) of respondents perceived it as COVID-19 cannot be transmit person to person when fever is absent. Near 95.7% of them knew COVID-19 can be prevented by covering the nose and mouth while coughing. Whereas 104(29.7%) of participants responded as COVID-19 had specific treatment and can cure of disease if they are treated.

5.4 Perception towards COVID-19

The mean score of perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cues to action and perceived self-efficacy were 21.84, 15.64, 38.39, 23.99, 3.3 and 15.93 respectively.

Table 4: HBM constructs with respective descriptive statistics of secondary school students in Enarj enawuga district, 2021

HBM constructs	No of items	Minimum score	Maximum score	Mean	SD ±	Cronbach's alpha
Perceived susceptibility	7	7	33	21.84	5.4	0.734
Perceived Severity	5	5	25	15.64	4.8	0.742
Perceived benefit	9	28	45	38.34	3.7	0.736
Perceived barrier	9	9	40	24.02	24.5	0.811
Cues to action	4	0	4	2.95	1.25	0.702
Self-efficacy	5	5	25	15.93	4.2	0.704

5.5 COVID-19 preventive practice

From the total 350 participants, 19.4% (95% CI: 15.5%-23.8%) had good preventive practice and 80.6% had poor preventive practice regarding COVID-19. Besides these 35 (22.7%) females and 33(16.8%), males had good preventive practices as well as 26.5% of urban and 14.3% of rural residents had good preventive practices. See figure 4.

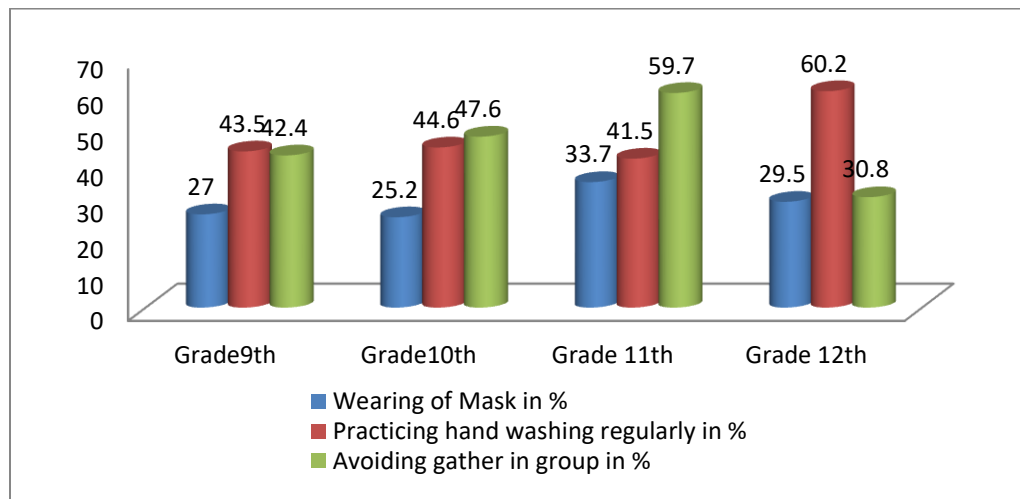


Figure 4: COVID-19 Preventive practice status with each grade level of secondary school students In Enarj Enawuga District, 2021

The majority of respondents 248(70.9%) them avoided close contact with people who are sick even inside their home and the lowest preventive practice 68(19.4%) was disinfecting materials with disinfectants. See Figure 5.

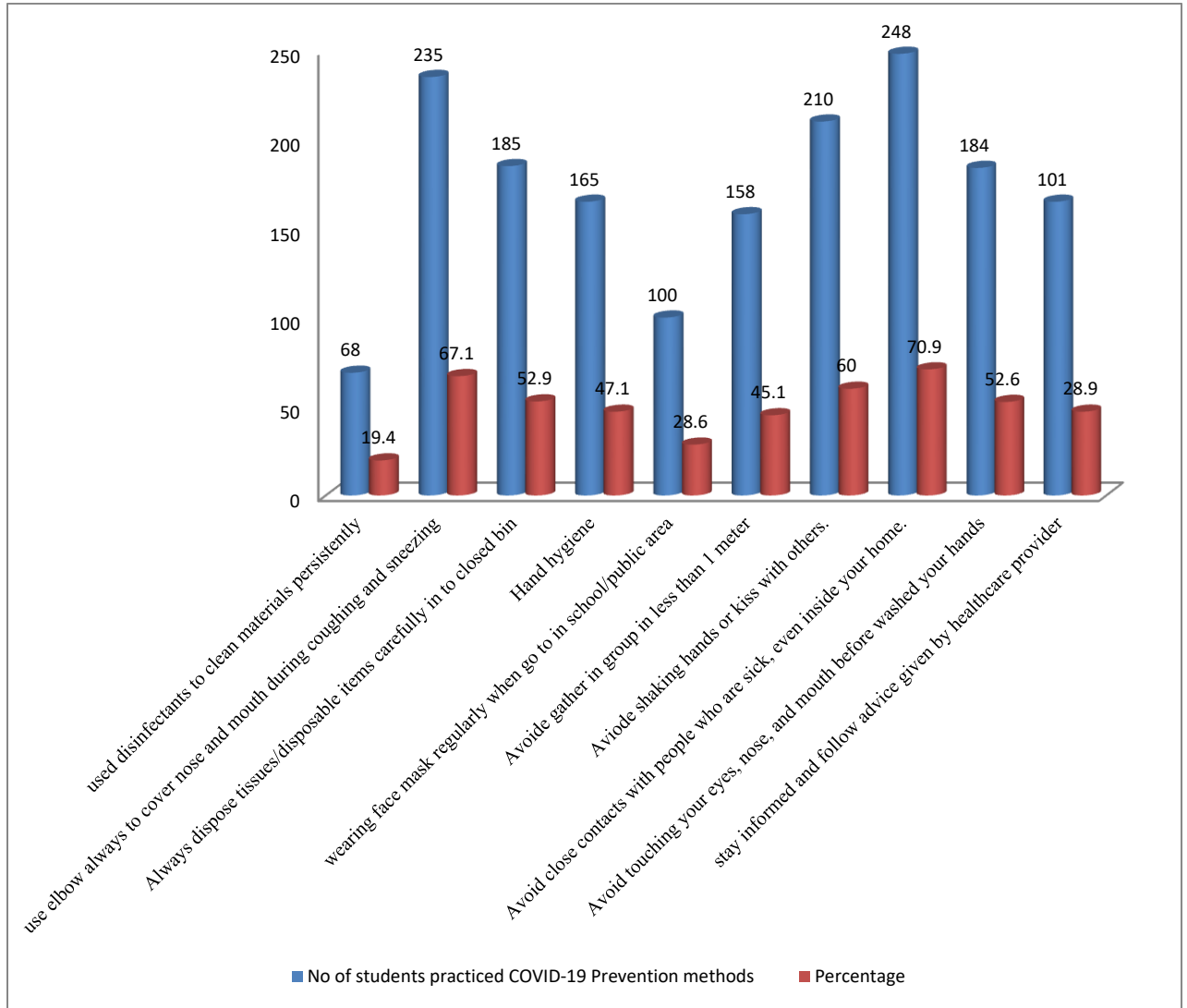


Figure 5: COVID-19 preventive practice among Enarj enawuga district secondary school students, Northwest Ethiopia, 2021

5.6 Factors Associated with COVID-19 Preventive Practice of Secondary School Students

Bivariable analysis: - Statistical analysis had done between independent and the dependent variables (COVID-19 preventive practice).

In the bivariable analysis, COVID-19 Preventive Practice was associated with sex, age, residence, marital status, educational status (grade), news media, social media, knowledge level, perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cues to action, self-efficacy and candidates for multivariable analysis ($p\text{-value}<0.25$). In multivariable logistic regression analysis by backward stepwise method residence, marital status, perceived severity, perceived benefit and perceived barriers to practice were significantly associated with COVID-19 preventive practice.

The odds of having good preventive practice were 2.3 times higher in those who lived in urban areas than rural residents (AOR=2.30; 95%CI: 1.05, 5.08). Likewise, the odds of the students who were married had 4.6 times more likely to have good preventive practice than students who did not marry (AOR=4.63; 95% CI: 1.31, 16.37).

Regarding health belief model constructs; perceived severity, perceived benefit and perceived barrier were revealed significantly associated with the good preventive practice.

For a unit increase in perceived severity sum score, the likelihood of COVID-19 prevention practice increased by 42% (AOR=1.42; 95% CI: 1.26-1.60).

For a unit increase in perceived benefit sum score, the likelihood of COVID-19 prevention practice increased by 23% (AOR=1.23; 95% CI: 1.10-1.38).

For a unit increase of perceived barrier sum of a score, the likelihood of COVID-19 prevention practice was decreased by 14% (AOR=0.86; 95% CI: 0.81-0.93). (Table 5 below)

Table 5: Bivariable and Multivariable Regression Analysis for Factors Associated with COVID-19 Preventive Practice of Secondary School Students in Enarj Enawuga District, 2021

Variables	Categories	Preventive practice		COR(95% CI)	AOR (95% CI)
		Poor	Good		
sex	M	163	33	1	1
	F	119	35	1.45(0.85, 2.47)	1.7(0.36, 3.97)
Residence	Rural	173	30	1	1
	Urban	108	39	2.17(1.27, 3.71)	2.3(1.05, 5.0)*
Grade level	Grade 9th	78	14	1	1
	Grade 10th	89	14	0.86(0.39, 1.95)	0.59(0.19, 1.88)
	Grade 11th	54	18	1.7(0.78, 3.69)	3.05(0.94, 9.96)
	Grade 12th	56	22	2.19(1.03, 4.65)	2(0.69, 5.81)
Marital status	Single	248	53	1	1
	Married	18	12	3.24(1.42, 7.38)	4.63(1.31, 16.37)*
	Divorced	15	4	1.12 (0.40, 3.11)	2.43(0.56, 10.59)
News media(Tv and radio) as a COVID-19 source of information	Yes	78	31	2.19(1.27, 3.77)	1.94(0.71, 5.33)
	no	204	37	1	1
Social media(internet) a source of information	yes	46	18	1.85(0.99, 3.45)	0.79(0.28, 2.19)
	no	235	51	1	1
Age (in years)				1.13(0.95, 1.33)	1.17(0.91, 1.52)
Knowledge about COVID-19				1.09(0.97, 1.22)	0.87(0.72, 1.07)
Perceived susceptibility				1.13(1.06, 1.19)	1.05(0.98, 1.13)
Perceived severity				1.52(1.37, 1.69)	1.42(1.26, 1.60)*
Perceived benefit				1.23(1.12, 1.34)	1.23(1.10, 1.38)*
Perceived barrier				0.80(0.76, 0.85)	0.86(0.81, 0.93)*
Cues to action				1.20(0.95, 1.50)	1.09(0.76, 1.58)
Perceived Self efficacy				1.09(1.02, 1.17)	0.95(0.85, 1.08)

*=Significant at p value <0.05

6. Discussion

Due to rapid transmission, highly raised incidence and fatality rate worldwide, prevention of COVID-19 is an important way to combat this outbreak. COVID-19 preventive practices of students had affected by different socio-demographic factors, knowledge and their perceptions towards COVID-19. This study aimed to investigate the extent of COVID-19 preventive practice by students in Enarj enawuga district by using HBM.

In this study, the overall COVID-19 preventive practice of students' were 19.4% (95% CI: 15.5%-23.8%) which was very low measures against this holocaust disease and it worries as that may lead to local and uncontrollable outbreaks in schools if students or school employees get infected. While WHO recommended that countries that reopen schools should take public health measures to minimize the risk to the students and school staff (9). The result of this study is consistent with studies done in Ethiopia by online 22.6% (35). Whereas, the result was lower than the study conducted among employees in Addis Abeba 31.2% (36), the preventive practice of COVID-19 among students in Ghana 68% (32) and Cameroon 60.8% (30). The possible reason for this variation of result might be the difference in geographical character in which those studies were done in cities, areas where highly COVID pandemic, the difference in target groups and number of participant, educational status and the cut point difference to categorized practice as good/ poor. In addition, it might be partly due to the lack of attention given by the students and responsible bodies as school directors and teachers that did not support and control the students' adhere to practice.

Based on this study results, the preventive practice was associated with student's residence, marital status, perceived severity, perceived benefit and perceived barrier.

According to this study, good COVID-19 preventive practices were higher among students of urban residents than their counterparts. Rural resident students were less likely to practice the preventive mechanisms. The reason behind this result may be due to easy accessibility of information from different sources, accessed preventive materials easily and it might be due to fear of the disease that diagnosed early in urban. It was in line with studies conducted among college students in the Amara region(44) in Bangladesh(33) and northern Iran(39).

Marital status was significantly associated with the preventive practice. Thus, the finding of good COVID-19 preventive practice was higher among students who were married than not married.

This finding indicates that marital status had a great role in the prevention practice of COVID-19 to students. Variation may be due to married student's fear of transmitting the disease to their family. It was consistent with studies among in residence of Ethiopia (35), and studies on compliance of COVID-19 preventive behaviour during the early outbreaks in Japan(38).

The result of this study showed that there was a significant positive association between perceived severity and preventive practice of students against COVID-19. When students' perceived severity increased, the odds of COVID-19 prevention practice was also increased. Therefore, student's perception severity of contracting disease should increase to engage in disease prevention. According to this study, students who had good preventive practice were believed that COVID-19 has serious negative consequences on their life, so to improve the adherence level information or messages should be focused on health consequences/ seriousness of the disease. This finding corresponds with the studies conducted in the University of Macau, China(50), Korean population(51), studies in India(52) and studies among higher education students in Portugal(53) in terms of the association between perceptions of disease severity and COVID-19 prevention measures.

Furthermore, the perceived benefit was also a significant factor for COVID-19 prevention practices among students in Enarj enawuga districts. This study showed that when students perceive the benefits aspects of prevention measures towards COVID-19, they more likely practicing the required measures. This was in line with the results of COVID-19 prevention in Northern Shoa (18), University of Macau China (50), studies in Korea (51), studies on factors associated with COVID-19 preventive behaviours among adolescent students in Iran (55) and studies on the influence of health belief model on COVID-19 prevention (56). Therefore, the rate of adherence to preventive behaviours enhanced by increasing perceived benefits.

The study also found that there was a significant negative association between perceived barriers and COVID-19 preventive practice. Students with a high level of perceived barriers are less likely to have good preventive practice hence it was important to minimizing barriers by addressing the obstacles of preventive practice to enhance practice. Barriers may include the cost of protective materials, accessibility, affordability, side effects, or allergy to mask and norms of the community were some perceived barriers(58). Whatever to increase the preventive practice of students, perceived barriers should reduce. The result of this study was consistent with the

study done in Addis Ababa (36), studies on preventive health behaviors during COVID-19 in Egypt (37), University of Macau China (50) and studies on COVID-19 preventive behaviors among adolescent students in Iran(55). Whereas other studies in North Shoa (18) and studies conducted in a Korean population(51), were contrary to this result in which the higher the perceived barrier score becomes the more preventive practice. Socio-economic, educational level and attention given by the students might be the possible reason for these variations.

7. LIMITATIONS

The study most of the time considers personal factors based on the health belief model, but this pandemic disease needs to be extended to the community or societal levels.

There might be social desirability bias, which portrays them in a more favourable way, so readers should remind the result and interpretations.

8. CONCLUSION

The purpose of this study was to assess the prevention practice and identify the factors that determine the preventive practice of students in Enarj enawuga district secondary school by application of HBM.

The overall prevention practice of study participants towards COVID-19 was very low. Students' who were urban resident, married, perceived severity, perceived benefit and perceived barriers were identified factors that associated to COVID-19 preventive practice of students.

9. RECOMMENDATION

Enarj Enawuga Secondary Schools

Students in secondary school need special attention for COVID-19 prevention measures. Routine awareness creation should be given and better to focus on the severity of disease and the benefits of using recommended preventive methods. Avail resources that students perceived as a barrier like water availability in school.

Enarj Enawuga Education Office

Support each secondary school in COVID-19 prevention by supplies like by availing hand washing materials, masks that were barriers for practice.

Enarg Enawuga Health office

Strengthen health education/ promotion by emphasizing the severity of this disease and benefits of prevention against COVID-19, avail COVID-19 prevention strategy posters that students easily access.

Stakeholders /Researchers

Future researchers are recommended to focus on awareness creation and share information for the community by using clubs and students.

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Appendix

1. English version Appendix

Participant Consent Information Sheet

I. Participant information sheet

How are you? My name is I am here on behalf of Yonass Aemiro, a student in Bahir Dar University, College of Medicine and Health Science, School of Public Health, Department of Health Promotion. He is conducting research on COVID-19 prevention practice and associated factors among secondary school students by using the health belief model in Enarj Enawuga district for the partial fulfilment of a master's degree. He has received a permission letter from the school of public health at Bahir Dar University, the district education office and the school director to conduct this study. We believe that the results of this study will assist policy makers, planners and health service providers in making considerations regarding the prevention and control of COVID-19. Your contribution has a great input for the study and I would greatly appreciate your participation. There is no possible risk associated with participating in this study. Your name will not be written in the questionnaire and please be assured that all the information you give will be kept strictly confidential. Only the principal investigator and the research assistants collecting the data will have access to the data. Your participation is voluntary. Filling this questioner will take 30 minutes.

Thank you

II. Informed consent agreement form

I have read the information sheet concerning this study and I understand what will be required of me and what will happen to me if I take part in it. I also understand that any time may withdraw from this study without giving a reason.

Participant's signature _____ Date _____

Facilitator name _____ Sign. _____ Date _____

III. Assent form

Child parents Participant Information Sheet

Good morning/ afternoon? My name is _____. I am here on behalf of Yonass Aemiro, a student in Bahir Dar University, College of Medicine and Health Science, School of Public Health, Department of Health Promotion.

He is conducting research on COVID-19 prevention practice and associated factors among secondary school students by using the health belief model in Enarj Enawuga district. There is no potential risk that may cause any harm to study participants. No financial benefits are related to this study. You and your child's name will not be written in this form. All information given by your child will be kept strictly confidential. Your child's participation is voluntary and they are not obligated to answer any question which, she/he does not wish to answer. This questionnaire will take about 30 minutes.

Written assent form for children' parents

I have heard and understand all about the objective and the process of the study. My child's participation is voluntary and not obligated to answer any question which she/he does not know or does not wish to answer. I also understood that all information given by my child will be kept strictly confidential. Therefore, I allow my child to participate in this study.

Parents sign _____ date _____

Data Collector sign _____ date _____

Contact Address of the Principal Investigator

Name: Yonass Aemiro

E-Mail: yonassaemiro18@gmail.com

Cell -Phone: +251912332893

English Questionnaire

Prepared for collecting information on COVID-19 prevention practice and associated factors in secondary school students in Enarj Enawuga district.

Name of data collector----- Signature----- Date----- Respondent Code No-----

Instruction: for each of the following questions please circle the number of alternatives that fit your response.

Section one: Socio-Demographic Data

N		Response category	Skip
DQ1	What is your sex?	1. Male 2. Female	
DQ2	Age in years		
DQ3	Where is your residence	1. Rural 2. Urban	
DQ4	Marital status:	1. Single 2. Married 3. Divorced 4. Widowed 5. Others (specify)	
DQR	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Other	
DQ5	Educational status (Grade)	1. Grade 9 th 2. Grade 10 th 3. Grade 11 th 4. Grade 12 th	
DQ6	Your father's (guardian) educational status?	1. unable to read and write 2. able to read and write 3. primary school (1-8grade) 4. secondary school (9-12) 5. higher education (college and above)	
DQ7	Your father (guardian) occupation?	1. Farmer 2. Government employment 3. Private Self-employment/business 4. Other (specify)	
DQ8	Your mother's (guardian) educational level	1. unable to read and write 2. able to read and write 3. primary school (1-8 grade) 4. secondary school (9-12) 5. higher education (college and above)	

DQ9	Your mother's (guardian) occupation?	1. Farmer 2. Government 3. Self-employment /business 4. Other (specify)	
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Section 2.1 Information about COVID 19

	Questions	Response category	skip
IQ21	Have you heard about COVID-19?	1. Yes 2. No	
IQ22	If your answer is yes Q21 tick the source of information you use to get information about COVID-19	1. Radio 2. Television 3. Internet (social media) like facebook 4. Health workers 5. Friends 6. Others, specify	
IQ23	Which source of information about COVID-19 do you trust most? More than one selection is possible.	1. Government media (TV/Radio/newsletter) 2. Private Media (TV/Radio/newsletter) 3. Health facilities/professionals 4. Social Medias(Facebook/Telegram) 5. Other, specify	

Section 2.2 Knowledge toward COVID-19 among students

No	Variables	Response tick(√) from the alternatives
KQ31	What is/are the main symptoms of COVID-19? More than one selection is possible.	A. Fever, B. Dry cough C. Shortness of breath and breathing difficulties D. Muscle pain and/or joint pain E. Others F. I don't know
KQ32	How does the COVID-19 spread?	A. Droplets from infected people B. Airborne C. Direct contact with infected people. D. Touching contaminated objects/surfaces E. Others F. I don't know
KQ33	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19	1. Yes 2. No 3. I don't know
KQ34	COVID-19 has specific treatment, which can cure from it.	1. Yes 2. No 3. I don't know
KQ35	Not all persons with COVID-2019 will develop to severe cases. Only those who are elderly, have chronic illnesses (DM, HTN), and obese are more likely to be severe cases	1. Yes 2. No 3. I don't know
KQ36	Covering the nose and mouth while coughing can	1. Yes 2. No 3. I don't know

	prevent COVID-19			
KQ37	Persons with COVID-19 cannot transmit the virus to others when a fever is not present.	1. Yes	2. No	3. I don't know
KQ38	The COVID-19 virus spreads via respiratory droplets of infected individuals.	1. Yes	2. No	3. I don't know
KQ39	Ordinary residents can wear general medical masks to prevent the infection by the COVID-19 virus.	1. Yes	2. No	3. I don't know
KQ40	It is not necessary for children and young adults to take measures to prevent the infection by the COVID-19 virus	1. Yes	2. No	3. I don't know
KQ41	To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportations.	1. Yes	2. No	3. I don't know
KQ42	Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus.	1. Yes	2. No	3. I don't know

Section three: Perceived susceptibility

	Please circle how you agree/disagree with the following statements	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
PSQ50	I don't care about this disease and do my daily activities like before	1	2	3	4	5
PSQ51	It is unlikely that I will get COVID-19	1	2	3	4	5
PSQ52	My behaviour(act) puts me at risk for COVID19	1	2	3	4	5
PSQ53	I am very healthy, so my body can fight COVID19	1	2	3	4	5
PSQ54	I am young so my body can fight COVID19	1	2	3	4	5
PSQ55	COVID-19 is not in my locality. So, I don't have to worry about it	1	2	3	4	5
PSQ56	My work place(school) makes me a high risk for COVID-19	1	2	3	4	5

Section Four: Perceived Severity

	Please circle how you agree/disagree with the following statements	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
SvQ60	Becoming corona virus infected is the worst thing that could happen to me	1	2	3	4	5
SvQ61	I believe that COVID-19 has serious negative consequences on my life.	1	2	3	4	5
SvQ62	I would rather have any other incurable illness than COVID19	1	2	3	4	5
SvQ63	I would rather die from a violent death (e.g. gunshot, car accident, etc.) than from COVID19	1	2	3	4	5
SvQ64	I believe that COVID-19 is extremely harmful and highly fatal	1	2	3	4	5

Section five: Perceived Benefit about prevention of Corona virus

	Please circle how you agree/disagree with the following statements	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
BeQ70	Washing hands frequently with soap and water or using alcohol-based hand rub kills the virus that causes COVID-19	1	2	3	4	5
BeQ71	Maintaining social/physical distancing can prevent risk of infection with COVID-19.	1	2	3	4	5
BeQ72	Avoiding touching eyes, nose and mouth prevent infection with COVID-19	1	2	3	4	5
BeQ73	Covering mouth during coughing/sneezing using the bend of your elbow or a tissue paper prevent spread of COVID-19.	1	2	3	4	5
BeQ74	Avoiding crowded places and close contact with anyone prevent risk of infection with COVID-19	1	2	3	4	5
BeQ75	Staying at home help to prevent infections with COVID-19	1	2	3	4	5
BeQ76	Isolation and treatment of people who are infected with the COVID-19 are effective ways to reduce the spread of the virus	1	2	3	4	5
BeQ77	Staying informed and following advice given by healthcare provider can reduce the chance of acquiring COVID-19	1	2	3	4	5
BeQ78	When symptoms of COVID-19 seen, seeking early medical care, helpful to manage COVID-19	1	2	3	4	5

Section six: Perceived Barriers

	Please circle how you agree/disagree with the following statements	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
BaQ91	I haven't knowledge how to prevent COVID-19	1	2	3	4	5
BaQ92	It is difficult to get water access to wash my hand.	1	2	3	4	5
BaQ93	I did not wear facemasks because the mask is scarce in the market.	1	2	3	4	5
BaQ94	I did not wear facemasks because I have allergy to mask.	1	2	3	4	5
BaQ95	I do not use alcohol-based sanitizers because of its cost.	1	2	3	4	5
BaQ96	It is difficult not to touch mouth, nose and eyes	1	2	3	4	5
BaQ97	Staying at home to prevent the disease is difficult	1	2	3	4	5
BaQ98	I cannot stop shaking hands because my relationships with people become affected	1	2	3	4	5
BaQ99	I cannot keep 1 meter physical distancing because it our classes are too narrow to keep physical distance and overcrowded.	1	2	3	4	5

Section seven: cues to action

	Please circle how you agree/disagree with the following statements	Yes	No	I don't know
CaQ111	I always hear from media about COVID-19 how to prevent it	Yes	No	I don't know
CaQ112	Posters are posted in school, which is giving information about COVID-19.	Yes	No	I don't know
CaQ113	The schoolteachers transmit a message about COVID-19 every morning in the school.	Yes	No	I don't know
CaQ114	I always hear when my friends discuss about COVID 19.	Yes	No	I don't know
CaQ115	I remember when my family advise me to care for COVID-19	Yes	No	I don't know

Section eight: self-efficacy

	Please circle how you agree/disagree with the following statements	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
SeQ121	I am not confident to wear facemask properly every time.	1	2	3	4	5
SeQ122	I am confident that I can wash my hands frequently with soap and water or using alcohol-based hand rub to keep myself from COVID-19	1	2	3	4	5
SeQ123	I haven't confident to stay at home to prevent COVID-19	1	2	3	4	5
SeQ124	I feel confident not to shake my hands with others	1	2	3	4	5
SeQ125	I can convince my partner/relative /friend to wear facemask /wash hands	1	2	3	4	5

Part 9: COVID 19 Prevention practice

	Questions	Response category		
PQ131	In the last week, have you used disinfectants to clean materials persistently?	yes	No	I don't know
PQ132	Do you use your elbow always to cover nose and mouth during coughing and sneezing?	yes	No	I don't know
PQ133	Have you always dispose tissues/disposable items carefully in to closed bin in a week?	yes	No	I don't know
PQ134	In the last one week do you regularly wash your hand after touching an item or surface with soap and water for at least 20 seconds?	yes	No	I don't know
PQ135	In the last one week if soap and water is not available, did you clean your hands with sanitizer?	yes	No	I don't know
PQ136	In the last week do you wear a face mask regularly when go to in school/ public area and when in less than 1 meter distance apart?	yes	No	I don't know
PQ137	In the last one week, did you gather in groups in less than 1 meter?	yes	No	I don't know
PQ138	In the last week don't you shake hands or kiss with others.	yes	No	I don't know
PQ139	Do you avoid close contacts with people who are sick, even inside your home	yes	No	I don't know
PQ140	In the last one week do you avoid touching your eyes, nose, and mouth before washed your hands	yes	No	I don't know
PQ141	In the last one week have you stay informed and follow COVID-19 preventive advice given by healthcare provider or medias	yes	No	I don't know

Thank you

ልጅዎ የሚሰጡት ሁሉም መረጃዎች በጥብቅ በሚስጢር ይያዛሉ። የልጅዎ ተሳትፎ በፈቃደኝነት ሲሆን እነሱ ለማይፈልጉት ማንኛውም ጥያቄ መልስ የመስጠት ግዴታ የለባቸውም ። ይህ መጠይቅ 30 ደቂቃ ያህል ይወስዳል።

I. የተማሪ ወላጆች ስምምነት የጽሑፍ ማረጋገጫ ቅጽ

ስለ ጥናቱ ዓላማ እና ሂደት ሁሉንም ሰምቻለሁ እና ተረድቻለሁ። የልጄ ተሳትፎ በፈቃደኝነት ሲሆን እሱ /እሷ የማያውቁትን ወይም መመለስ የማይፈልጉትን ማንኛውንም ጥያቄ የመመለስ ግዴታ የለባትም። እኔም በ ልጄ የተሰጠ መረጃ ሁሉ በጥብቅ በሚስጢር እንደሚያዝ ተረድቻለሁ ። ስለዚህ ልጄ በዚህ ጥናት ውስጥ እንድትሳተፍ ፈቅጃለሁ ።

የወላጅ ፊርማ _____ ቀን _____

የመረጃ ሰብሳቢ ፊርማ _____ ቀን _____

የዋና መርማሪው አድራሻ

ስም: - ዮናስ አዕምሮ

ኢ-ሜል: yonassaemiro18@gmail.com

ሞባይል - ስልክ: +251912332893

የአማርኛ መጠይቅ

የመለያ ኮድ----- የተሳታፊው ፊርማ ቀን.....

ክፍል አንድ፡ ማህበራዊ የህዝብ ሁኔታ- ለሚከተሉት ለእያንዳንዱ ጥያቄ እባክዎ ለእርስዎ ምላሽ የሚስማማውን አማራጭ (ጮች) ብዛት ያክብቡ።

ጥያቄዎች	የመልስ አማራጮች
Q1 ያታ	1. ወንድ 2. ሴት
Q2 እድሜ	_____ አመት
Q3 የመኖሪያ ቦታ	1. ገጠር 2. ከተማ
Q4 የትዳር ሁኔታ	1. ያላገባ 2. ያገባ 3. የፈታ 4. ሌላ/ ካለ ይገለጹ-----
Q4 ሀይማኖት	1. ኦርቶዶክስ ክርስቲያን 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላ ካለ ይገለጹ-----
Q5 ስንተኛ ክፍል ነዎት	1. 9ኛ 2. 10ኛ 3. 11ኛ 4. 12ኛ
Q6 የአባት(የአሳዳጊ) የትምህርት ደረጃ	1. ማንበብና መጽፍ አይችልም 2. ማንበብና መጻፍ ይችላል 3. ከ 1-8ኛ ክፍል 4. ከ 9-12ኛ ክፍል 5. ከፍተኛ ተቋም (ኮሌጅና ከኮሌጅ በላይ)
Q7 የአባት(የአሳዳጊ) የስራ ሁኔታ	1. አርሶ አደር 3. የመንግስት ሰራተኛ 2. የግል ንግድ ስራ 4. ሌሎች ካሉ ይገለጹ
Q8 የእናት(የአሳዳጊ) የትምህርት ደረጃ	1. ማንበብና መጽፍ አይችልም 2. ማንበብና መጻፍ ይችላል 3. ከ 1-8ኛ ክፍል 4. ከ 9-12ኛ ክፍል 5. ከፍተኛ ተቋም (ኮሌጅና ከኮሌጅ በላይ)
Q9 የእናት(የአሳዳጊ) የስራ ሁኔታ	1. አርሶ አደር 3. የመንግስት ሰራተኛ 2. የግል ንግድ ስራ 4. ሌሎች ካሉ ይገለጹ

ክፍል 2.1፡ ተማሪዎች ስለ ኮሮና በሽታ ያላቸው መረጃ

ተ.ቁ	ጥያቄዎች	መልስ
IQ21	ስለ ኮሮና በሽታ ሰምተው ያውቃሉ?	2. አዎ 2. አልሰማሁም
IQ22	መልስዎ አዎን ከሆነ፣ መረጃውን ከየት ነው የሚያገኙት? (ከአንድ በላይ መምረጥ ይቻላል)	1. ፊደሮ 2. ቴሌቪዥን 3. በይነመረብ (ማህበራዊ ሚዲያ) እንደ ፊት-ኮከብ 4. የጤና ሰራተኞች 5. ከዳደሮቻችሁ 6. ሌላ ካለ ይገለጹ-----

IQ23	ስለ ኮሮና በሽታ ለእርስዎ ታማኝ የመረጃ ምንጭ የትኛው ነው? ከአንድ በላይ መልስ ማድረግ ይቻላል	<ol style="list-style-type: none"> 1. የመንግስት ሚዲያዎችን (ቴሌቪዥን/ ሬዲዮ / ጋዜጣ) 2. የግል ሚዲያዎች (ቴሌቪዥን / ሬዲዮ / ጋዜጣ ወዘተ) 3. የጤና ባለሙያዎችን 3. ማህበራዊ ሚዲያ (ፌስቡክ / whatsapp / Telegram) 4. ሌላ ካለ ይግለጹ-----
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ክፍል 2.2: ተማሪዎች ስለ ኮሮና በሽታ ያላቸው እውቅ

KQ31	ዋና ዋና የኮሮና ቫይረስ በሽታ ምልክቶች ምንድን ናቸው? ከአንድ በላይ መልስ ማድረግ ይቻላል	<ol style="list-style-type: none"> 1. ትኩሳት 2. ደረቅ ሳል 3. የትንፋሽ እጥረት እና የመተንፈስ ችግር 4. የጡንቻ ወይም የመገጣጠሚያ ህመም 5. ሌሎች 6. አላውቅም
KQ32	የኮሮና ቫይረስ በሽታ ከሰው ወደ ሰው እንዴት ይተላለፋል? ከአንድ በላይ መምረጥ ይቻላል	<ol style="list-style-type: none"> 1. በሽተኛው በሚስልበት ወይም በሚያነጥስበት ጊዜ 2. በአየር ወለድ 3. በበሽታው ከተያዙ ሰዎች ጋር በቀጥታ መገናኘት 4. የተበከሉ ነገሮችን / ፎጣዎችን መንከት 5. ሌሎች----- 6. አላውቅም
KQ33	ከተለመደው ጉንፋን በተለየ የአፍንጫ መታፈን ፣ የአፍንጫ ፍሳሽ እና ማስነጠስ በኮሮና ቫይረስ በተያዙ ሰዎች ብዙም ያልተለመዱ ናቸው	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም
KQ34	የኮሮና ቫይረስ በሽታን የሚያድን ፍቱን መድሀኒት ስላለው ታክሙን መዳን እንችላለን	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም
KQ35	ሥር የሰደደ (ቆየት ያለ) በሽታ ያላቸው አዛውንቶችና ከመጠን በላይ ውፍረት ያላቸው ሰዎች ከሌሎች የተለየ ከባድ የኮሮና በሽታ ሊያጋጥማቸው ይችላል።	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም
KQ36	በሚስሉበት ጊዜ አፍንጫን እና አፍን መሸፈን የኮሮና ቫይረስን መከላከል ይቻላል	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም
KQ37	በኮሮና ቫይረስ የተያዙ ሰዎች ትኩሳት በማይኖርበት ጊዜ ቫይረሱን ወደ ሌሎች ሊያስተላልፍ አይችሉም	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም
KQ38	የኮሮና ቫይረስ በበሽታው በተያዙ ግለሰቦች የመተንፈሻ አካላት በሚወጡ ጠብታዎች ይተላለፋል	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 3. አላውቅም

KQ39	ሀብረተሰቡ በቫይረስ እንዳይጠቃ አጠቃላይ የህክምና ጭምብል በማድረግ ኮሮናን መከላከል ይችላሉ	1. አዎ 2. አይደለም 3. አላውቅም
KQ40	ከኮሮና ቫይረስ ኢንፌክሽን ልጆች እና አዋቂዎችን ለመከላከል አስፈላጊ እርምጃዎችን መውሰድ አያስፈልግም።	1. አዎ 2. አይደለም 3. እኔ አላውቅም
KQ41	የኮሮና ቫይረስን ለመከላከል ግለሰቦች ሰው ከሚበዛበት አካባቢ ከመሄድ መቆጠብ እና የህዝብ ማመላለሻዎችን ከመጠቀም መቆጠብ አለባቸው	1. አዎ 2. አይደለም 3. እኔ አላውቅም
KQ42	በ ኮሮና ቫይረስ ከተያዘ ሰው ጋር ንክኪ ያላቸው ሰዎች ወዲያውኑ መነጠል እና ማከም የቫይረሱን ስርጭት ለመቀነስ ውጤታማ መንገዶች ናቸው ።	1. አዎ 2. አይደለም 3. እኔ አላውቅም

ክፍል ሦስት፡ ስለ ኮሮና ቫይረስ ተጋላጭነት ያለውት ግንዛቤ

ተ.ቁ	ቀጥለው የቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ / እንደማይስማሙ በማክበብ አንዱን ይምረጡ	በጣም አልስማም (1)	አልስማምም (2)	እርግጠኛ አይደለሁም (3)	እስማማለሁ (4)	በጣም እስማማለሁ (5)
PSQ50	ስለ ኮሮና ቫይረስ ግድ የላኝም እንደ ቀድሞው እንቀሳቀሳለሁ	1	2	3	4	5
PSQ51	ኮሮና ቫይረስ ያገኘኛል ብዬ አላስብም	1	2	3	4	5
PSQ52	የእኔ ባህሪ (ድርጊት) ለኮሮና ቫይረስ ተጋላጭ ያደርገኛል	1	2	3	4	5
PSQ53	እኔ በጣም ጤናማ ስለሆንኩ ሰውነቴ ኮሮና ቫይረስን መዋጋት ይችላል	1	2	3	4	5
PSQ54	እኔ ወጣት ነኝ ስለሆነም ሰውነቴ ኮሮና ቫይረስን መዋጋት ይችላል	1	2	3	4	5
PSQ55	የኮሮና ቫይረስ በአካባቢዬ ውስጥ ስለሌለ ስለሱ መጨነቅ አያስፈልገኝም	1	2	3	4	5
PSQ56	የሥራ ቦታዬ (ት/ቤት) ለኮሮና ቫይረስ ከፍተኛ ተጋላጭ ያደርገኛል	1	2	3	4	5

ክፍል አራት- ስለ በሽታው ከባድነት ያለዎት ግንዛቤ

	ቀጥለው የቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ / እንደማይስማሙ በማክበብ አንዱን ይምረጡ	በጣም አልስማም (1)	አልስማምም (2)	እርግጠኛ አይደለሁም (3)	እስማማለሁ (4)	በጣም እስማማለሁ (5)
Q60	በኮሮና ቫይረስ መበከል (መታመም) በእኔ ላይ ሊደርስብኝ የሚችለው ነገር እጅግ የከፋ ነው	1	2	3	4	5
Q61	ኮሮና ቫይረስ በሕይወቴ ላይ ከባድ አሉታዊ ውጤቶች እንዳሉት አምናለሁ ሞትንም ያስከትላል።	1	2	3	4	5
Q62	ከኮሮና ቫይረስ ይልቅ ሌላ የማይደን ህመም ቢኖር እፈልጋለሁ	1	2	3	4	5
Q63	በኮሮና ቫይረስ ታሞ ከመማቀቅ እና ከመሞት ይልቅ በሌሎች	1	2	3	4	5

	ድንገተኛ አደጋዎች ጉዳት መሞት ይመርጣል።					
Q64	የኮሮና ቫይረስ በሽታ እጅግ በጣም ጎጂ እና ገዳይ ነው ብዬ አምናለሁ	1	2	3	4	5

ክፍል አምስት- ስለ ኮሮና ቫይረስ መከላከያ መንገዶች ጠቀሜታ ያለዎት ግንዛቤ

	ቀጥለው የቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ / እንደማይስማሙ በማክበብ አንዱን ይምረጡ	በጣም አልስማም (1)	አልስማምም (2)	እርግጠኛ አይደለሁም (3)	እስማማለሁ (4)	በጣም እስማማለሁ (5)
Q70	እጅን በሰሙና እና በውሃ በተደጋጋሚ መታጠብ ወይም በአልኮል እጅን ማሸት የኮሮና በሽታን የሚያመጣውን ቫይረስ ይገለጻል።	1	2	3	4	5
Q71	ማህበራዊ / አካላዊ ርቀትን መጠበቅ በ ኮሮና ቫይረስ የመያዝ ተጋላጭነትን ይቀንሳል።	1	2	3	4	5
Q72	ዓይንን ፣ አፍንጫን እና አፍን አለመነካካት በኮሮና ቫይረስ የመያዝን ይከላከላል።	1	2	3	4	5
Q73	በሚያስል/ ሚያስነጥስ ጊዜ ከርንን በማጠፍ ወይም ፎጣ በመጠቀም አፍን መሸፈን የኮሮና ቫይረስ ስርጭትን ይከላከላል	1	2	3	4	5
Q74	በተጨማሪም ቦታዎች እና ከማንኛውም ሰው ጋር አለመነካካት በኮሮና ቫይረስ የመያዝ አደጋን ይከላከላል።	1	2	3	4	5
Q75	በቤትዎ መቆየት በኮሮና ቫይረስ የመያዝ እድልን ይቀንሳል	1	2	3	4	5
Q76	በኮሮና ቫይረስ የተጠቁ ሰዎችን መለየት እና እንዲታከሙ ማድረግ የቫይረሱን ስርጭት ለመቀነስ ውጤታማ መንገዶች ናቸው	1	2	3	4	5
Q77	በአቅራቢዎ ባሉ ጤና ባለሙያዎች የሚሰጠውን መረጃ በመከተል እና ተግባራዊ ማድረግ በኮሮና ቫይረስ የመያዝ እድልን ይቀንሳል	1	2	3	4	5
Q78	የኮሮና ቫይረስ በሽታ ምልክቶች እንደታዩ ቶሎ ብሎ የህክምና እርዳታ ማግኘት በሽታውን ለመቆጣጠር ያግዛል	1	2	3	4	5

ክፍል ስድስት- የኮሮና ቫይረስን ለመከላከል ያሉ መሰናክሎች/ማንቆዎች

	ቀጥለው የቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ / እንደማይስማሙ በማክበብ አንዱን ይምረጡ	በጣም አልስማም (1)	አልስማምም (2)	እርግጠኛ አይደለሁም (3)	እስማማለሁ (4)	በጣም እስማማለሁ (5)
Q91	ከኮሮና ቫይረስ እንዴት መከላከል እንደሚቻል አላውቅም	1	2	3	4	5
Q92	እጅን በተደጋጋሚ ለመታጠብ የውሃ አቅርቦት የለም	1	2	3	4	5
Q93	ጭምብሉ በገበያው ውስጥ እምብዛም ስለሌለ የፊት ማስክ አልጠቀምም	1	2	3	4	5
Q94	ፊቴን ስለሚያሳክክኝ (አለርጂክ) የፊት ማስክ አልጠቀምም	1	2	3	4	5
Q95	በዋጋው ምክንያት በአልኮል ላይ የተመሰረቱ ንፅህና መጠበቂያዎችን አልጠቀምም	1	2	3	4	5
Q96	አፍን ፣ አፍንጫን እና አይንን አለመነካካት ከባድ ነው ሊነካው እችላለሁ	1	2	3	4	5

Q97	በሽታውን ለመከላከል በቤት ውስጥ መቆየት ከባድ ነው	1	2	3	4	5
Q98	ከሰዎች ጋር ያለኝን ግንኙነት ስለሚቀንስብኝ የእጅ ሰላምታ/መጨባበጥ ማቆም አልቻልም	1	2	3	4	5
Q99	በ1 ሜትር አካላዊ ርቀትን ለመጠበቅ ክፍሎቻችን በጣም ጠባብ ስለሆኑ አካላዊ ርቀትን መጠበቅ አይቻልም	1	2	3	4	5

ክፍል ሰባት:-የኮሮና ቫይረስ መከላከያ መንገዶችን ተግባራዊ ለማድረግ የሚያነሳሱ/ማንቁያዎችን በተመለከት

	ቀጥለው ቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ/እንደማይስማሙ በማክበብ አንዱን ይምረጡ	አዎ	የለም	አላውቅም
Q111	ስለ ኮሮና ቫይረስ ሁልጊዜ እንዴት መከላከል እንደሚቻል ከሚዲያ እሰማለሁ	አዎ	የለም	አላውቅም
Q112	ስለ ኮሮና ቫይረስ በሽታ መረጃ የሚሰጡ ፖስተሮች ትምህርት ቤት ውስጥ ተለጥፈዋል ::	አዎ	የለም	አላውቅም
Q113	የትምህርት ቤቱ መምህራን በየቀኑ ጠዋት ት/ቤት ውስጥ ስለ ኮሮና ቫይረስ መልእክት ስለሚያስተላልፉ መከላከያዎችን እንድጠቀም ያደርገኛል::	አዎ	የለም	አላውቅም
Q114	ስለ ኮሮና ቫይረስ በሽታ ዳይቶች ሲወያዩ ሁል ጊዜ እሰማለሁ?	አዎ	የለም	አላውቅም
Q115	ኮሮና ቫይረስን ለመከላከል ቤተሰቦቼ ስለሚመክሩኝ መከላከያዎችን አልረሳም	አዎ	የለም	አላውቅም

ክፍል ስምንት- በራስ መተማመን/ ውጤታማነት

	ቀጥለው የቀረቡ ጥያቄዎችን ሚቀጥሉት መግለጫዎች እንደሚስማሙ / እንደማይስማሙ በማክበብ አንዱን ይምረጡ	በጣም አልስማማም(1)	አልስማማም(2)	እርግጠኛ አይደለም(3)	እስማማለሁ(4)	በጣም እስማማለሁ(5)
Q121	ሁል ጊዜ የፊት መሸፈኛ በአግባቡ መልበስ እንደምችል በራሴ አልተማመንም::	1	2	3	4	5
Q122	እራሴን ከኮሮና ቫይረስ ኢንፎክሽን ለመከላከል እጆቼን በሰሙና እና በውሃ በተደጋጋሚ መታጠብ ወይም በአልኮል ሁልጊዜ እጄን በማሸት መከላከል እችላለሁ ::	1	2	3	4	5
Q123	ከኮሮና ቫይረስ ኢንፎክሽን እራሴን ለመከላከል በቤት ውስጥ መቆየት እንደምችል እርግጠኛ አይደለሁም	1	2	3	4	5
Q124	በመጨባበጥ ሰላምታ እንደማልሰጥ እርግጠኛ ነኝ	1	2	3	4	5
Q125	ዘመድ፣ዳይቶቼ የፊት መሸፈኛ ማስክ እንዲጠቀሙ እና እጃቸውን እንዲታጠቡ ማሳመን እችላለሁ ::	1	2	3	4	5

ክፍል ዘጠኝ:- ከኮሮና ቫይረስ በሽታ ለመከላከል እያከናወኑት ያለ ድርጊት

	ድርጊቶች	የመልስ አማራጮች		
Q131	ባለፈው አንድ ሳምንት ውስጥ ቁሳቁሶችን ሲያፀዱ ምንጊዜም ፀረ ተባይ መድኃኒቶችን ተጠቅመዋልን?	አዎ	የለም	አላውቅም
Q132	ሁልጊዜ ሲያስልዎ ወይም ሲያስነጥሱ በክርንዎ ውስጥ ወይም በጨርቅ አፍዎን እና አፍንጫዎን ይሸፍናሉ?	አዎ	የለም	አላውቅም
Q133	ሁልጊዜ የሚጣሉ ቆሻሻዎችን ወደ ተዘጋጀ ባለ ክዳን የቆሻሻ መጣያ በጥንቃቄ ያስወግዳሉ?	አዎ	የለም	አላውቅም

Q134	ባለፈው አንድ ሳምንት ውስጥ ማናቸውንም ቁሳቁስ ወይም ቆሻሻ ነግር ከነኩ በኋላ እጅዎተወነወ በውሃና ሳሙና ለ20 ሴኮንድ በማሸት ታጥበዋል?	አዎ	የለም	አላውቅም
Q135	ባለፈው አንድ ሳምንት ውሃ እና ሳሙና /ከሌለ ደግሞ ቢያንስ በ70% አልኮል ባለው/ የእጅ ማፅጃ ሁልጊዜ እጅዎትን አፅድተዋል?	አዎ	የለም	አላውቅም
Q136	ባለፈው አንድ ሳምንት ውስጥ ወደ ትምህርት ቤት / የሥራ ቦታ/ሱቅ ሲሄዱ ሁልጊዜ ከአንድ ሜትር ርቀት በታች ሲጠጋጉ የፊት ማስክ ለብሰዎል/አድርገዋል?	አዎ	የለም	አላውቅም
Q137	ባለፈው አንድ ሳምንት ውስጥ ከ1 ሜትር ባነሰ ርቀት ውስጥ በቡድን ተሰብስበዋል?	አዎ	የለም	አላውቅም
Q138	ባለፈው አንድ ሳምንት ውስጥ ከሌሎች ሰዎች ጋር እጅ ለእጅ አለመጨበበጥ/ አለመሰሰዎን ተግባራዊ አድርገዋል?	አዎ	የለም	አላውቅም
Q139	በቤትዎ ውስጥም ቢሆን እንኳ ከታመሙ ሰዎች ጋር የጠበቀ ግንኙነትን ያስወግዳሉ?	አዎ	የለም	አላውቅም
Q140	ባለፈው አንድ ሳምንት ውስጥ እጅዎን ሳይታጠቡ ዓይን ፣ አፍንጫ እና አፍን ከመነካካት ተቆጥበዋል?	አዎ	የለም	አላውቅም
Q141	እርስዎ ባለፈው አንድ ሳምንት ውስጥ በጤና ባለሙያዎች፣ በቴሌቪዥን እና በሬዲዮ የሚሰጠውን ምክር በትክክል ተግባራዊዎል?	አዎ	የለም	አላውቅም

ጥያቄውን ጨርሰዋል እናመሰግናለን

Declaration and approval forms

Candidate's Declaration form

Declaration

I, the under signed, declared that this is my original work, has never been presented in this or any other University, and that all the resources and materials used for the research, have been fully acknowledged.

Principal investigator

Name: Yonass Aemiro

Signature: _____

Date: _____

Advisor’s approval form

Bahir Dar University College of Medicine and Health Science School of Public Health Department of Health Promotion and Behavioural Science

I hereby certify that I have supervised, read, and evaluated this thesis titled “COVID-19 Preventive Practice and Associated Factor among Secondary School Students in Enarj Enawuga District, Northwest Ethiopia, Application of Health Belief Model” by Yonass Aemiro prepared under my guidance. I recommend the thesis submitted for oral defence.

Advisor’s name	Signature	Date
1. Mr. Yosef Wasihun (BSC, MPH/ HP)	_____	_____
2. Mr. Hordofa Gutema (BSC, MPH/ HP, Assistant Professor)	_____	_____

Examiner's approval form

Bahir Dar University College of Medicine and Health Science School of Public Health Department of Health Promotion and Behavioural Science

Approval of thesis for defence result

We hereby certify that we have examined this thesis entitled “COVID-19 Preventive Practice and Associated Factor among Secondary School Students in Enarj Enawuga District, Northwest Ethiopia, Application of Health Belief Model” by Yonass Aemiro. We recommend and approve the thesis a degree of “Master in Public Health in Health Promotion and Behavioral Science”

Board of Examiners

Internal Evaluator

Name: Lidya Mesfin (BSC, MPH/ HP)

Signature: _____

Date: _____