



**PERCEIVED STRESS AND ASSOCIATED FACTORS DURING COVID-19 PANDEMIC AMONG REGULAR UNDER GRADUATE STUDENTS OF JIMMA UNIVERSITY, JIMMA, SOUTH WEST, ETHIOPIA, 2021**

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**A THESIS PAPER TO BE SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF MEDICAL SCIENCES, DEPARTMENT OF PSYCHIATRY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS OF SCIENCE DEGREE IN INTEGRATED CLINICAL AND COMMUNITY MENTAL HEALTH.**

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JIMMA , ETHIOPIA

PERCEIVED STRESS AND ASSOCIATED FACTORS DURING COVID-19 PANDEMIC  
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## **Abstract**

**Background:** *Despite the fact that COVID-19 is a 21<sup>st</sup> century pandemic that poses difficult challenges in all aspects of human life, it is a pressing issue for young people pursuing higher education. They were reporting high perceived stress. However, there is a dearth of study had done on perceived stress and associated factors during COVID-19 pandemic among university student.*

**Objective:** *the aim of this study is to identify perceived stress and its associated factors during COVID-19 pandemic among regular under graduate students of Jimma University, Jimma, South west, Ethiopia, November, 2021.*

**Method:** *An Institution based cross sectional study design was conducted and multistage random sampling technique was used to select 779 study participants among Jimma University regular undergraduate students. The data was gathered by using a structured self-administered questionnaire. The data was gathered by using a structured self-administered questionnaire. Perceived stress scale-10-C was used to measure the dependent variable. The sociodemographic information, psychological factors, Biological factors, and COVID-19 related factors were used as independent variables of this study. The data was entered to Epidata version 4.6, exported and analyzed by SPSS-25. Then, presented by text, frequency table and Bar chart and mean and standard deviation were computed for the descriptive data. Binary logistic regression was used to identify independent predictors of the outcome variable. The P-value < 0.05 and 95% CI, were used in multivariate analysis to declare the presence and strength of the association.*

**Result:** *from all participants 33.5% were experienced high perceived stress level. Being female (AOR=1.66, 95%CI:(1.15-2.40), family history of chronic physical illness (AOR=1.64, 95%CI:(1.14-2.35), Alcohol use (AOR=1.82, 95%CI:(1.20-2.77), low precautionary measures (AOR=1.93, 95%CI:(1.06-3.51), poor social support (AOR=2.30, 95%CI (1.26-4.19) and low resilience level (AOR=1.71, 95%CI:(1.02-2.87) were associated in multivariate analysis.*

**Conclusion and Recommendation:** *In our study, the prevalence of perceived stress is high as compared with study done in abroad and factors like being female, family history of chronic physical illness, alcohol use, poor social support, low resilience and low precautionary measures were significantly associated. Jimma University administrator have to provide specific COVID-19 related psychological services for university students.*

**Key words:** *Perceived stress, COVID-19, University students, Jimma, Ethiopia.*

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## **Acronyms and Abbreviations**

AOR	Adjusted Odds Ratio
BRS	Brief Resilience Scale
CI	Confidence Interval
COR	Crude Odds Ratio
COVID-19	Corona Virus Disease - 2019
IRB	Institutional Review Board
JCOA	Jimma College of Agriculture.
JU	Jimma University
OR	Odds Ratio
PPB	Post-Exposure Protective Behaviors
PPE	Personal Protective Equipment
PRB	Post-Exposure Risky Behaviors
PSS-10	Perceived Stress Scale- 10
PSS-10-C	Perceived Stress Scale-10-COVID-19
RPB	Routine Protective Behaviors
SARS-CoV	Sever Acute Respiratory Syndrome Corona Virus
SPSS-25	Statistical Package for Social Science-25
UNESCO	United Nations Educational, Scientific and Cultural Organizations
US	United States
W H O	World Health Organization

## **Chapter One: Introduction**

### **1.1. Background**

The novel coronavirus was discovered in late December 2019 in China, Wuhan (1). It is highly contagious and quickly spreaded to various countries (2). Thus, World Health Organization declared it as a pandemic on March 11, 2020 (3). In Ethiopia, the first case was confirmed on March 13, 2020 and the Council of Ministers declared a five-month state of emergency on April 8, 2020 (4). The ongoing effect and its spread have forced country around the world to implement precaution and prevention measures towards COVID-19 (5).

In 2020, more than 150 countries had closed educational institutions (6). To reduce this problem, many Governments started to use online learning and restrictive measures which have had a devastating impact on the psychological well-being of young people (7). In addition to the problems related to socio-economic, inaccessibility of computer and internet, design of courses for practicum and lab were the main challenges which have a great impact on university student's evaluation and made them as experienced high stress (8). Study done in USA show that, college students were perceived high stress during the pandemic (9).

Perceived stress is a state of individual perception to stimuli and feels emotional tension, feeling discomfort and dissatisfaction after subjected to stimuli or stressors (10). Stress emerges from an imbalance between an individual's perception and external demands and it is a subjective assessment of the degree to which the situation in one's life is seen as stressful (11). It is more about the feelings related with lack of control and unpredictability than the actual stressors with thoughts of spiralling into what could happen and decide that awful things are inevitable (12). As a psychological and physiological state, the normal response to stress is anxiety and prolonged exposure, higher levels of perceived stress may lead to adverse consequences associated with mental illness (13).

Individuals reaction or perception to stressor are vary in nature (14). However, their way to cope is an important and critical for obtaining solution to how people react to stress (15). Up to the best available information, there is a dearth of study have been done in our country, to assess perceived stress level and associated factors during COVID-19 among regular undergraduate students of Jimma University, which is important and supportive evidence to provide crisis oriented psychological service and giving stress related intervention for university students. So, this study is aimed to assess this issues among regular undergraduate Students of Jimma University.

## **1.2. Statement of problem**

The COVID-19 pandemic is a worldwide health problem which has caused significant health damage (16). During November 15, 2021 more than 5,000,000, about 250,000 and nearly 6638 people were died due to COVID-19 pandemic as a world, Africa and in Ethiopia respectively (17). The number of death related to COVID-19 is rapidly increasing and leading to feeling of hopelessness, helplessness, stress, anxiety, depression, sleep disturbances, aggression, and suicidal behavior among suspected students (18).

The concerns of an impending economic suppression, social isolation and travel restrictions due to COVID-19 pandemic have a significant impact on university students (19). Study done in America indicate that four out of five University students were experienced high perceived stress due to financial difficulties after occurrence of COVID-19, which is the main source of perceived stress for them (20). Another study done by UNESCO during this period found that closures of an educational institution has affected nearly 900 million students and became home school (21). Additionally, evidences from research and clinical observations show that, many young people were experiencing high perceived stress due to fear of becoming infected, fear of coming into contact with potentially contaminated objects, compulsive checking, and reassurance seeking (22).

As time goes, COVID-19 related mental disorders is increasing and many university students were feelings of hopelessness and helplessness, isolation from family and friends, school disruption that directly caused students to become bored and irritable with a significant impact on their psychological health (23). Prior research conducted before occurrence of COVID-19 pandemic suggests that students at various universities across the country were dealing with a growing mental health crisis on their campuses (24). Finding of study done in our country prior to COVID-19 indicate that, university students were experienced high perceived stress level ranging from 29.97 to 63.7 percent (25–27) and in current condition, with presence of prior predisposing factor, COVID-19 increases the occurrence of mental illness and many university students were experiencing high perceived stress (28).

From the various studies, sociodemographic factors such as being female, young age, being single, family history of mental illness, family history of chronic physical illness, coping strategy, personal resilience, substance use, isolation from family and friends, financial distress, hopelessness, loneliness, and uncertainty due to COVID-19 pandemic were associated

with high perceived stress level (29–33). Increased perception of stress might be associated with moderate level of anxiety, depression symptoms, interpersonal sensitivity, frustration and powerlessness (34). On the other hand, in addition to pre-existing factors, the unprecedented disruptions in health education and other activities caused by the COVID-19 outbreak are expected to have a negative impact on students' mental health (35). However, public health agencies and experts from all countries are working on the outbreak to ensure that the best care is available to those who are affected (36).

To the best available information, there is a dearth of studies have been conducted in our country to assess perceived stress level and associated factors during COVID-19 among regular undergraduate University students. The prior study conducted had put the magnitude of perceived stress level with its associated factors among university students during COVID-19 pandemic and our study has some modification with addressing some variables that was not identified before.

### **1.3. Significance of this study**

The COVID-19 pandemic poses a significant challenges on university students and has become a potential stressor and significantly impacted psychological well-being of university student. Their education has been disrupted, socially isolated from their classmate students and beloved one and psychologically stressed due to the effects of COVID-19 pandemic.

From different literatures and clinical observation, many young peoples are experiencing high perceived stress related with COVID-19 and it's a pressing issue and due to its effect university students were socially, accedemically and psychologically affected.

Actually, during a global health problem like this pandemic, many university students' faces new challenges and need responsive programming from the university administration with evidence based and supported by scientific research.

So, this study is important and supportive evidence for:

Policy makers to develop health system strategies to provide stress-related psychological services to students in order to reduce stress and facilitate effective coping strategies,

University administrators to provide psychological services and early management of students COVID-19 related stress as well as appropriate counseling services,

It will be used as a baseline information for researchers and other concerned body to conduct further research on the impact and intervention of COVID-19-related stressors among university students.

## **Chapter two: Literature Review**

### **2.1 Magnitude of perceived stress level during COVID-19 among university students**

The cross-sectional study done in 2020 among 406 University students of Colombia by using PSS-10-C showed that the prevalence of high perceived stress level was 14.3% (37).

The study done in France on Stress and associated factors among all French university students during COVID-19 lockdown has prevalence of high perceived stress level 22% (38) and the other study done on the same country and among university students has prevalence of high perceived stress 22.4 % (39).

According to the study conducted in 2020 at Vietnam among 563 preventive medicine students by using PSS-10 show that the prevalence of high perceived stress level was 1.6% (40).

Similarly, the study conducted in 2020 in India among Indian Nursing students of selected colleges in Pune showed that the prevalence of high perceived stress was 13.35 percent of the participants experienced, while 82.67 percent of the participants had a moderate perceived stress score (41).

According to another study conducted on 706 dental students in 2020 at a Pakistani university, the prevalence of high perceived stress was 53.5%, 43.4 percent experienced moderate levels of perceived stress, and 2.9 percent experienced low levels of perceived stress (42).

The finding of study done in Riyadh university also indicate that the prevalence of high perceived stress was 30.2% (43). During the pandemic, a study conducted at King Saud University on medical students using a cross-sectional study design was found that university students had high perceived stress level 12.8 % (44).

The study done in Egypt during COVID-19 outbreak among university students was also indicate the prevalence of high perceived stress level was 14.2% (45).

The survey conducted on university students in the Bench shenko, in the south-west of Ethiopia was found that 32.5 percent had a high perceived stress level. This study was done on the impacts of COVID-19 on mental health of university students (46).

An online cross-sectional survey conducted among other health science students of Jimma University during COVID-19 was found that 35.9 percent of participants were experienced a high perceived stress level (47).

## **2.2 Factors associated with perceived stress level during COVID-19 among university students**

The study done in France show that, the presence of someone hospitalized for COVID-19 in one's household and female gender were the main risk factors for high perceived stress. The following risk factors were also identified: enrollment in the arts, humanities and language program; postponement of a final examination; difficulties isolating; noise inside or outside one's home; a lack of direct outdoor access; increased alcohol and tobacco consumption; and the perceived ineffectiveness of the use of media entertainment to calm down. Friend support and family support and the perceived effectiveness of physical exercise for calming down were protective factors (38).

During the COVID-19 pandemic, a cross-sectional study done at Granada University in Spain found that, According to correlational analysis, higher scores on perceived stress were associated with: younger age, lower resilience, and lower use of the coping strategies of problem-focusing, and positive re-appraisal.

According to a voluntary anonymous online cross-sectional survey distributed to University of Adelaide medical and psychology, students with higher levels of resilience have lower levels of psychological stress and are favored resilience-based interventions (48).

During the COVID-19 pandemic, a cross-sectional study of Yanshan University students found that, psychological separation from school and fear of contagion were positively associated with perceived stress and negatively associated with physical and psychological health of university students (49).

Also, according to a cross-sectional study conducted on Chinese college students, COVID-19-related stressful events were positively and significantly correlated with stress and negatively associated with protective indicators such as resilience, social support, and adaptive coping strategies (50).

The cross-sectional study done on medical students of King Saud University during the COVID-19 pandemic found that being female sex and younger age was significantly associated factors for high perceived stress (44).

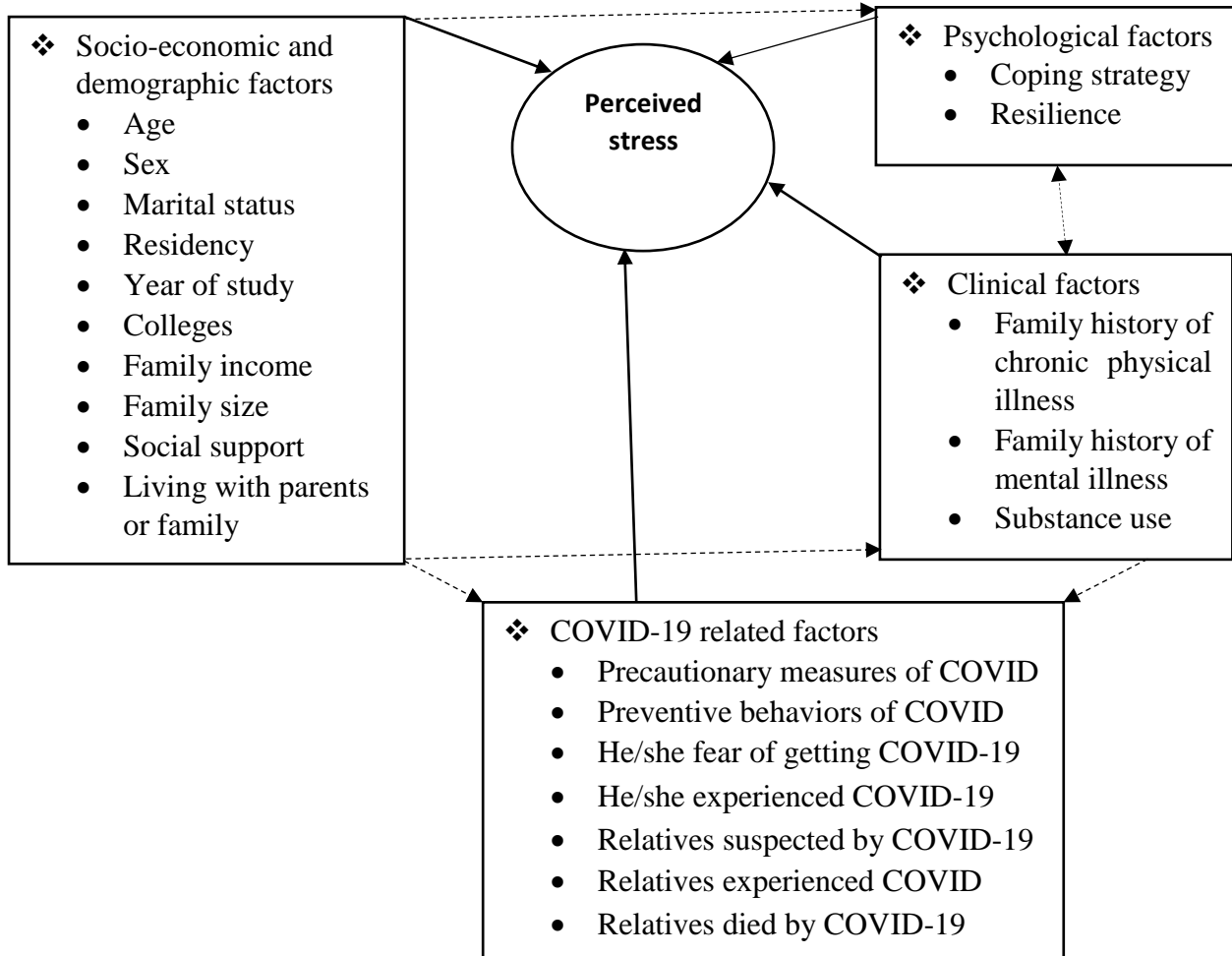
The study done in Egypt support the association being female and presence of chronic medical illness with high perceived stress (45).

The study conducted on the psychological impacts of COVID-19 Pandemic among University students in Bench shenko, found that not living with their parents, relatives infected with coronavirus, and low family income were risk factors for mental disturbance. Furthermore, substance abuse, depression, anxiety, and a lack of social support all increased the risk of stress in university students (46)

The cross-sectional study conducted on Jimma University on other health science students revealed that, personal perception of being stressed by the daily number of COVID-19 cases/deaths in Ethiopia, rare online talk/chat with friends, presence of confusion due to inconsistent strategies developed by health/government authorities in light of scientific recommendations, perception of self/family members are associated with perceived stress (47).



### 2.3 Conceptual frame-work



*Key: broken line indicates possible associations which are not part of the analysis in this study.*

**Figure1: summery of conceptual frame-work developed from different literature review to study perceived stress level and associated factors during COVID-19 pandemic among regular under graduate students of Jimma University, November, 2021 (38,40,45,51–53).**

## **Chapter Three: Objectives**

### **3.1. General objective**

- ❖ To assess perceived stress level and associated factors during COVID-19 pandemic among regular under graduate students of Jimma University, Jimma, south west, Ethiopia, November, 2021.

### **3.2. Specific objective**

- ❖ To determine perceived stress level during COVID-19 pandemic among regular under graduate students of Jimma University, Jimma, south west, Ethiopia, November, 2021.
- ❖ To identify factors associated with perceived stress level during COVID-19 pandemic among regular under graduate students of Jimma University, Jimma, south west, Ethiopia, November, 2021.

## **Chapter Four: Methods**

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

Study was conducted in Jimma University. Jimma University is established in 1999 by the combination of Jimma College of Agriculture (JCOA) founded in 1952 and Jimma institute of health science which is founded in 1983 and located in Jimma, which is 352 km far apart from capital, Addis Ababa. It is recognized as the leading national university as ranked by the Federal Ministry of Education from 2009-2012. It is one of the largest and most comprehensive public research universities.

The university is organized in five campuses: Main Campus, Business and Economics campus, Agriculture and Veterinary Medicine Campus, Jimma Institute of Technology Campus and Agaro campus, which are situated at different locations of Jimma city and the Agaro did not started teaching and learning process yet. There are two Institutes and 6 colleges. They are institutes of Health, Institute of Technology, College of Natural and Computational Science, College of Social Science and Humanity, College of Law and Governance, Colleges of Business and Economics, Colleges of Educational and Behavioral science, Colleges of Agricultural and Veterinary medicine. There are 16,857 regular undergraduate students from all campus and there are 81 departments in general. The study was conducted from July-August, 2021.

### **4.2. Study design**

- ❖ Institution-based cross sectional study design was conducted.

### **4.3. Population**

#### **4.3.1. Source population**

- ❖ All regular undergraduate students of Jimma University.

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

- ❖ All regular undergraduate students of Jimma University included into the sample.

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

#### **4.4.1. Inclusion criteria**

- ❖ All regular undergraduate students of Jimma University.

## 4.5. Sample size and sampling technique

### 4.5.1. Sample size determination

The sample size of this study was done by using two methods and the highest calculated sample size was selected. The first method was using single population mean formula. The sample size was calculated by using Single population proportion formula. Prevalence of perceived stress was 35.9% from study done in JU among health science students amid COVID-19 was used and the assumptions taken was 5% margin of error, 95% confidence interval and sample size of 354 was calculated. The participants was recruited by a multistage random sampling technique. So, with consideration of design effect (x2) and then, addition of non-response rate (10%) the final sample size was **779**.

#### Sample size calculation:

- $ni = \frac{(z_{\alpha/2})^2 p(1-p)}{d^2}$
- Whereas: - ni =Initial sample size,  $\alpha$  = Confidence interval (95%), p =prevalence of perceived stress is 35.9%, d =Margin of sampling error tolerated (5%).

$$ni = \frac{(1.96)^2 0.359(1-0.359)}{0.05^2} = \frac{(1.96)^2 \times 0.23}{0.05^2} = \frac{3.842 \times 0.23}{0.0025} = \frac{0.884}{0.0025} = 353.6 \sim 354.$$

Since multistage sampling technique was used, design effect was added. So, multiplied by 2 giving 708. Then, considering 10% non-respondent rate, the final number of the study subject became **779**.

The second method was sample size calculation based on associated factors. For calculation, Stat Calc feature of Epi-Info 7 of cross sectional study design was used. So, different associated factors was used and assumptions such as power (80%), margin of errors 5% and confidence interval 95% was considered. Therefore, the final sample size obtained was 779, which was the **largest possible sample** obtained by comparing of both methods.

**Table 1: the sample size determination depending on prevalence of perceived stress and associated factors during COVID-19 pandemic among regular undergraduate students of Jimma University, Jimma, Southwest, Ethiopia, November, 2021.**

Variables	%	Assumption		AOR	Final sample	Reference
		D	CI			
Perceived stress (prevalance)	35.9	5%	95%	-	779	(47)
Fear of relatives got COVID-19	OR					
Exposed group: those say Yes	24.3	5%	95%	2.095	316	(47)
Non exposed group: those say No	11.6	5%	95%	-	-	-
Substance Use	OR					
Exposed group: those say Yes	37.3	5%	95%	3.45	314	(46)
Non exposed group: those say No	62.7	5%	95%		-	-

#### 4.5.2. Sampling technique and procedure

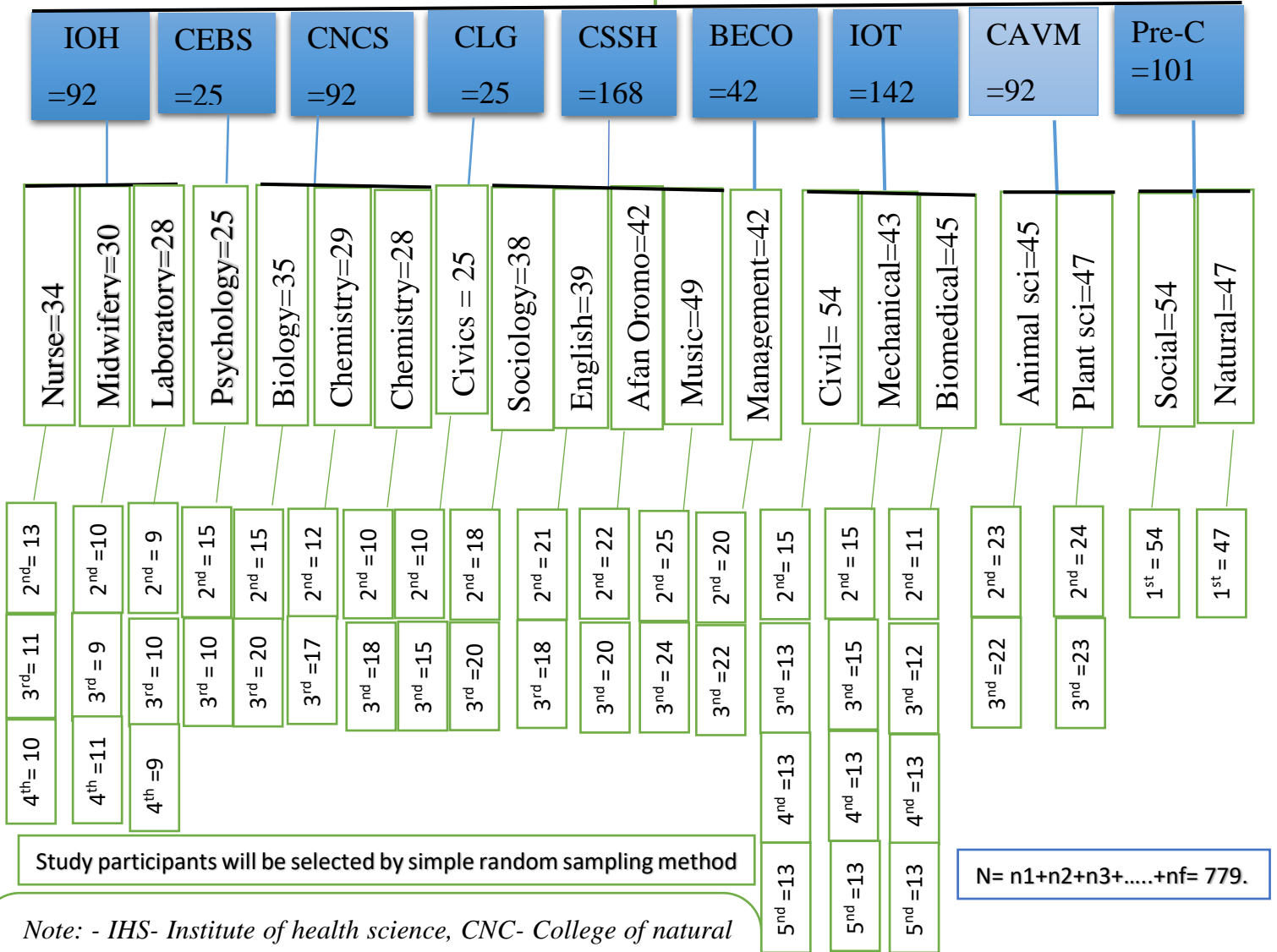
Multistage random sampling technique was used to select the study participants. First, the JU was divided into already stratified Colleges. Secondly departments under those colleges was selected by simple random sampling based on their proportional allocation of departments. Thirdly, the selected departments was further stratified into their study years. At the end, Simple random sampling techniques was used to get study unit by table of random number. Based on information taken from Jimma University registrar, JU has two institutes (Institute of health and Institute of technology) and six colleges with a total of 81 departments. Additionally, there were freshman students who were not assigned to any of colleges and departments. Basically, they have the same characteristics and to make allocation fair, we categorized them into pre-colleges or freshman students. There are 12 classes of freshman and in relative to others department, about 12.09% of 12 classes were selected by simple random sampling method, which is about 2 classes were selected.

From a total of 81 departments and 12 fresh students classes, Institute of health have 11 departments, containing (11.82%) of them, institute of technology have 17 departments, containing (18.27%) of them, College of Agricultural and veterinary medicine have 11 departments, containing (11.82%) of them, College of natural and Computational science have 11 departments, containing (11.82%) of them, College of social science and Humanity have 20 departments, containing (21.50%) of them, College of law and Governance have 3

departments, containing (3.22%) of them, College of behavioral and educational science have 3 departments, containing (3.22%) of them and College of Business and economics have 5 departments, containing (5.37%) of them. Pre-college students have 12 classes, containing (12.09%) of them.

Using WHO rule (54), around 20 departments were selected according to their respective percentage of departments and classes by using simple random sampling method. Therefore, 18.27% of 17 departments meaning 3 departments from institute of technology, 11.82% of 11 departments meaning 3 departments from institute of health science, 11.82% of 11 departments meaning 3 department from College of natural and Computational science, 21.50% of 20 departments meaning 4 departments from College of social science and Humanity, 11.82% of 11 departments meaning 2 departments from College of Agricultural and veterinary medicine, 5.37% of 5 departments meaning 1 departments from college of Business and economics, 3.22% of 3 departments meaning 1 department from college of behavioral, educational science and 3.22% of 3 department meaning 1 department from College of law and Governance and 12.09% of 12 classes meaning 2 classes from fresh students were selected by simple random sampling techniques. Then, the sample was classified to already stratified year of study and participants were selected by using simple random sampling from all year of study by table of random numbers. Lastly, 779 participants were selected from the all selected departments based on their proportion of students in specified study year.

JU=779



Note: - IHS- Institute of health science, CNC- College of natural and computational science , CSS- College of social science and humanity, CEBS- College of educational and behavioral science, Pre-C- Pre-college, CLG- College of Law and government.

Figure 2: The schematic presentation of the sampling procedure among regular under graduate students of Jimma University, Jimma, south west of Ethiopia, November, 2021.

#### **4.6. Data collection tools and procedure**

Data was collected through structured, self-administered questionnaire and for those with sight problem (blind), interview technique was planned to use and such type of case were not available. The data collection process was supervised by four professionals with a master's of Science degree in integrated clinical and community mental health after 2 day of training on administration of study instruments, consent form, and maintaining confidentiality. English version, Ahmaric version and Afan Oromo version questionnaires were used as preference to collect the data. The consistence of questionnaires were checked by translation it to local language Afan Oromo and Amharic language and translated them back to English version.

**The questionnaire related to socio-eco-demographic information** was contain Age, Sex, Religion, marital status, Ethnicity, Residency, year of study, colleges, Family income, living with family or parents, family size and social support.

**Social support assessing instrument** which was called Oslo three-item social support scale was used to measure student's social support level. In current study, its crombach alpha is 0.75. its total score is categorized as, poor social support (3–8), moderate social support (9–11) and strong social support (12–14) (55).

**The clinical factors** includes: family history of mental illness, current substance use and confirmed family history of chronic physical illness.

**The COVID-19 related factors** are family suspected by COVID-19, fear of getting COVID-19, relatives experienced COVID-19 symptoms, relatives died by COVID-19, precautionary measures and protection behaviors toward COVID-19.

**Protective behaviors towards COVID-19** tool was used to measure participant's protective behaviors from COVID-19. It has 5-point Likert scale with 14 items, where 1 refers to Not at all like me and 5 refers to just like me. It has three dimensions of Routine Protective Behaviors (RPB), Post-exposure Protective Behaviors (PPB) and Post-exposure Risky Behaviors (PRB). Items in RPB was aimed to measure individuals' protective behaviors in daily life when facing the pandemic. The PPB subscale mainly asks about people's protective behaviors after the exposure to possible infection and PRB questions are about student's risky behaviors after the possible infective exposure. For the PRB dimension, the item-responses was calculated reversely for the further analysis. In current study, this tool has crombach alpha 0.81 with high



internal consistence. The overall result was categorized as, 56–70, high protective behavior, 35–55, moderate and 14–34, low protective behavior (56).

**The precautionary measures tool** was used to measure student's precaution towards COVID-19. It has 15 questions and were answered by yes or no, the correct answer was assigned 1 point and an incorrect answer was assigned 0 point. The overall practice of precautionary measures score was categorized using the same Bloom's cut-off point, as good if the score was between 80 and 100% (12–15 points), moderate if the score was between 60 and 79% (9–11.9 points), and poor if the score was less than 60% (< 9 points) (57). In current study, its cronbach alpha is 0.83 with high internal consistence.

**The psychological factors** contains perceived stress, resilience and coping strategy of students toward COVID-19. The COVID-19 related perceived stress was measured by perceived stress scale (PSS-10-C) and it is a survey instrument which is used to measure the degree of stress associated with COVID-19. Each item provides five response options: never, almost never, sometimes, fairly often, and very often. Items n. 1, 2, 3, 6, 9, and 10 were scored from 0 to 4; items n. 4, 5, 7, and 8 were scored reversely, from 4 to 0. In this study, scores equal to or higher than 25 were deemed as high perceived stress associated with COVID-19 (37,58). In current study, the PSS-10-C was presented a high internal consistency with Cronbach alpha equal to 0.803.

**Resilience measuring instrument** called Brief Resilience scale was used to assess the participant's ability to bounce back or recover from stress. It has 6 items and each has 5 likert scales which is denoted from 1 (strongly disagree) to 5 (strongly agree) with a global range of 6 to 30. First, the value (1-5) of your responses was added for all six items. Then, dividing the sum to 6 for the final score. So, the score was Interpreted as (1.00 - 2.99) Low resilience, (3.00 - 4.30) Normal resilience and (4.31 - 5.00) High resilience (59). In current study, this tool has 0.764 cronbach alpha.

**Stress coping strategy of students** was assessed by Brief COPE. In current study this tool has Cronbach alpha equal to 0.844). It has 28 self-reported item designed to measure adaptive and maladaptive ways to cope with a stressful life event. It has been using by different researchers (60) and used in a previous study in Ethiopia (61). The tools was used to classify students coping strategy either adaptive or avoidant. Adaptive Coping style is characterized by the subscales of active coping, positive reframing, planning, acceptance, seeking emotional support and seeking informational support. It has high Cronbach alpha equal to 0.812. It is

associated with more helpful responses to adversity and adaptive practical adjustment and effective coping strategy. The avoidant coping style was characterized by the subscales of denial, substance use, venting, behavioral disengagement, Self-distraction and self-blame. It Cronbach alpha equal to 0.752. It is associated with less effective way of coping in managing anxiety or stress. The other are humor and religion subscales which did not exclusively load on either of the above factors and are therefore not included in either. Total scores on each of the scales were calculated by summing the appropriate items for each scale. In these section the items score was **not reversed** and **no overall total score** was calculated. But, only total scores for each of the scales was putted (62).

#### **4.7. Study Variable**

##### 4.7.1. Dependent variable

- ❖ Perceived stress level

##### 4.7.2. Independent variables

- ❖ **Socio-eco-demographic factors:**

Age,	Sex,
Religion,	Ethnicity,
Marital status,	Residency,
Family income,	Family size,
Year of study,	Colleges,
Social support,	

- ❖ **COVID-19 related factors:**

Relatives experienced COVID-19 symptoms,  
 He/she fear of getting COVID-19,  
 He/she experienced COVID-19,  
 Relatives experienced COVID-19 and  
 Relatives suspected by COVID-19,  
 Relatives died by COVID-19,  
 Precautionary measures of COVID-19 and  
 Protective behaviors toward COVID-19.

- ❖ **Psychological factors:**

Resilience level,  
 Coing strategy,

❖ **Clinical factors:**

Confirmed family history of chronic physical illness such as, Heart diseases, diabetic mellitus, hypertension, TB, Asthma

Family history of mental illness: - Presence of anxiety, depression, suicide

Current substance use: - Alcohol, Khat, tobacco, cannabis

**4.8. Operational definitions**

- ❖ **Perceived stress-** Perceived stress scale-10-C scores equal to or higher than 25 were deemed as high perceived stress level and less than 25 were deemed as low perceived stress level associated with COVID-19 (37,58).
- ❖ **Coping strategy-** is constantly changing cognitive and behavioral efforts which are undertaken by an individual in order to deal with demands that are especially challenging and are probably exceeding individual capacities and resources (63).
- ❖ **Adaptive coping strategies:-** is effective coping strategy like trying to look on the bright side to rebuild the meaning of life and integrate the stressful experience with existing cognitive schemas about the self and the world, which were linked with better psychological adjustment (64–66).
- ❖ **Avoidant coping strategies:-** is ineffective coping strategy like drinking which is closely associated with dissatisfaction with life and severe symptoms of psychological responses after the stressful experiences (67).
- ❖ **Resilience:** The brief Resilience scale score of 1.00 - 2.99 is low resilience level, 3.00 - 4.30 is normal resilience level and 4.31 - 5.00 is high resilience level (59).
- ❖ **Social support:** Oslo three-item social support scale will be used to measure the student's social support. It's the sum total score is ranging from 3–14 which is categorized as 3–8, poor social support, 9–11, moderate social support and 12–14, strong social support (55).
- ❖ **Current substance use:** use of at least from one of Khat, alcohol, Tobacco, Ganja or others at least once in the last three months.
- ❖ **Family history of chronic physical illness:** having of Heart diseases, diabetic mellitus, Hypertension, TB, Asthma and others chronic physical illness that previously has been diagnosed by health professional in family.
- ❖ **Protective behaviors toward covid-19:** Protective Behaviors towards COVID-19 Scale is used to measure student's precaution and protection from COVID-19. Its

total scores of 56–70, high protective behavior, 35–55, moderate and 14–34, low protective behavior.

- ❖ **Family income:** by using world bank poverty line, 2018 < 2565EB(1.9\$/day) taken as low and above and equal to it was high family income (68).

#### **4.9. Data processing and analysis**

Once all necessary data was obtained, the data was checked for completeness. Study variable was coded in Epidata manager Version 4.6, entered to Epidata entry client, exported and analyzed by using SPSS-25. For descriptive data, mean and standard deviation was used and the data was presented by narrative, frequency table and Bar charts. Bivariate logistic regression was performed to explore the association of independent variable with outcome variable. Hosmer-lemeshow goodness of fit test was used to check whether the necessary assumption for application of multivariate logistic regressions were fulfilled. Multicollinearity was checked by variance inflation factor. Explanatory variable with p-value of less than 0.25 in bivariate analysis were candidate for multi variable logistic regression. Confidence intervals of 95%, P value of <0.05 and adjusted odds ratios (AORs) were used to determine and quantify the associations between a definite outcome and the predictive variables multivariate analysis.

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

Standardized and validated tools were used in this study. To identify potential problems and to make important modifications, the questionnaire was pretested on 5% of the total study participants on Wolkite University, two weeks before actual data collection. There was no reported and visible problem was found from the pretest. During actual data collection period, training was given to supervisor and data collectors, any error, ambiguity, incompleteness, or other encountered problems was addressed immediately after supervisors were received the filled questionnaire from each student.

#### **4.11. Ethical consideration**

The study was conducted after ethical clearance was obtained from Institutional Review Board (IRB) with reference number (IHRPG/MD/363) of Jimma University. The study protocol was approved by the Institutional Review Board of Jimma University, Institute of Health and official letter of support was written to the selected departments. The letter of Permission was obtained from all relevant authorities of the colleges and sampled departments. The involvement of the study participants were voluntary and participants were informed of the right to withdraw anytime from the study. Moreover, written informed consent was obtained

from every study participant before data collection. The data collection was undertaken confidentially, justice, beneficency, nonmaleficence, autonomy and responses was kept private and anonymous.

#### **4.12. Dissemination plan**

After this study has been conducted, it would be submitted to department of Psychiatry, Institute of health science, to research office of JU, to dissemination office and to all relevant stake holders. Efforts will be made to present it in different workshops, and to publish it on peer reviewed, national or international journal.

## CHAPTER FIVE: RESULT

### 5.1. The socio-economic and demographic factors characteristics of respondents

From the total of 779 students, 96.28% were respondents in this study. Among all respondents, the majority were males. The respondent's age of 18-25 years were about 433(57.7%), from all study participants the majorities 315(42%) were Oromo by ethnicity and singles were the major group 599(79.9%) from all marital status. Among all participants, 270(36%) of respondents were Orthodox religion followers and participants originally came from rural areas were 473(63.1%). From the different colleges, the majority were from College of social Sciences. The participants from second and third years were equally participated with around 295(39.3%). Regarding numbers of family size, 558(74.4%) of participants were from joint family (>4). 603(80.4%) of study participants were not living with their parents or family and 47.1% of respondents had low social support. From all study participants, 352(54.3%) of respondent's family income were less than poverty line. Refer (Table 3)

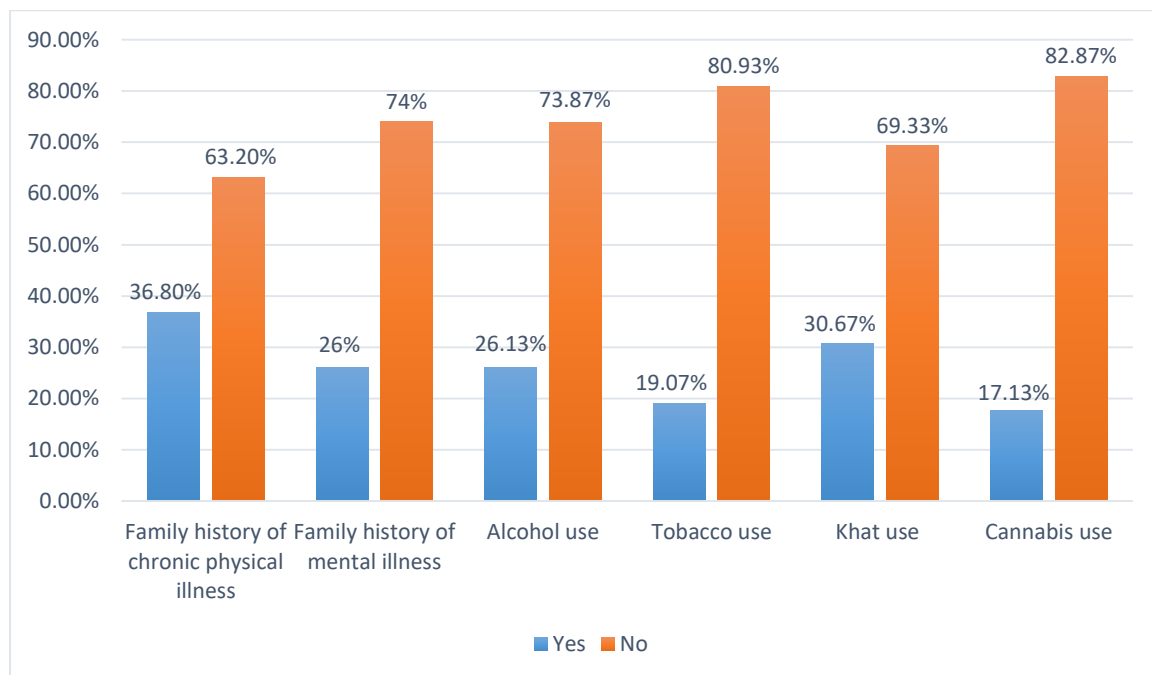
*Table 3: Sociodemographic characteristics of study participants among regular undergraduate students of Jimma university, November 2021 (N=750).*

Variables		N	%	Variables		N	%
<b>Sex</b>	Female	358	47.7	<b>Residence</b>	Urban	277	36.9
	Male	392	52.3		Rural	473	63.1
<b>Age</b>	18-25	433	57.7	<b>Live with family</b>	Yes	147	19.6
	>25	317	42.3		No	603	80.4
<b>Religion</b>	Muslim	245	32.7	<b>Marital status</b>	Married	57	7.6
	Orthodox	270	36.0		Single	599	79.9
	Protestant	175	23.3		Separated	68	9
	Others	60	8.0		Widowed	26	3.5
<b>Ethnicity</b>	Oromo	315	42.0	<b>Study year</b>	1st years	50	6.7
	Amhara	230	30.7		2nd years	295	39.3
	Tigre	100	13.3		3rd years	295	39.3
	Gurage	70	9.3		4th years	66	8.8
	Others	35	4.7		5th years	44	5.9
<b>Family income</b>	Below poverty line	407	54.3	<b>Family size</b>	Joint family	558	74.4
	Above poverty line	343	45.7		Nuclear family	192	25.6

<b>Colleges</b>	Technology	135	18.0	Social support	Poor	352	47.1
	Health	100	13.3		Moderate	312	41.6
	Agricultural	100	13.3		High	85	11.3
	Business and economics	35	4.7				
	Law and Governance	25	3.3				
	Behavioral Science	25	3.3				
	Computational Science	100	13.3				
	Social science	180	24.0				
	Pre- colleges	50	6.8				

## 5.2 The clinical factors characteristic of respondents

According to the participant's response in this study, 276(36.8%) and 195(26%) of respondents had family history of chronic physical illness and family history of mental illness respectively. Among the participants of substance users, the majority 230(30.66%) were Khat users (figure 3).



**Figure 3: Clinical factors characteristic of participant's among regular undergraduate students of Jimma university, November 2021 (N=750).**



### 5.3 The psychological factors characteristic of respondents

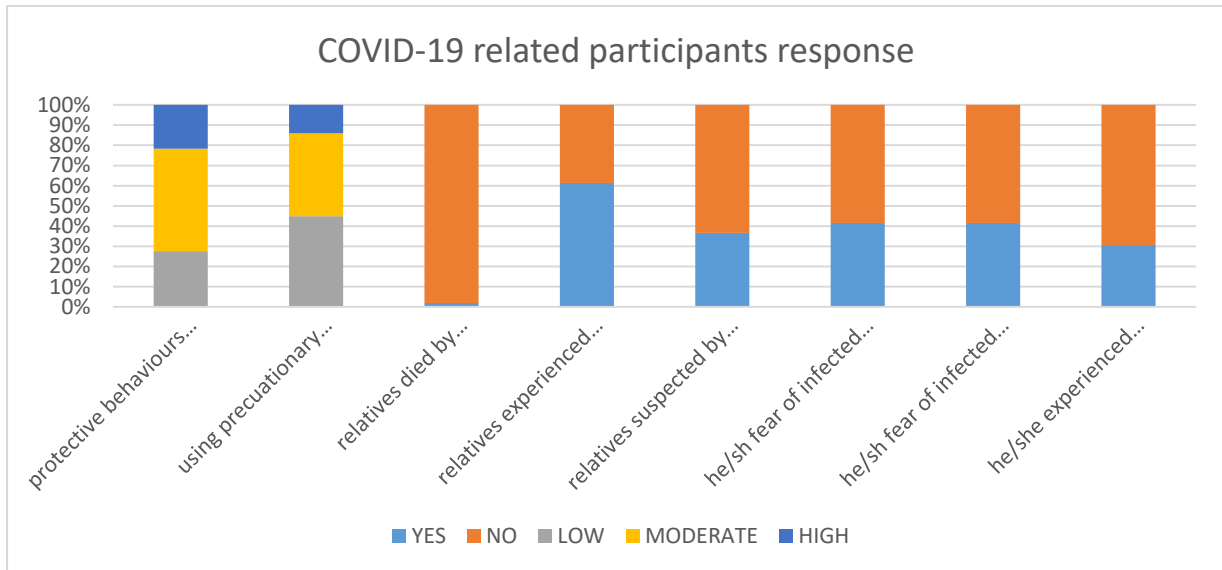
In this study, from all, the majority 344(45.87%) of our study respondents were reported normal resilience level and based on their response, the total mean and SD score of coping strategy was  $80.57 \pm 15.88$ . From the broad categories of coping strategy, the avoidant type achieved highest mean score. From it, Self-distraction achieved highest mean score ( $6.13 \pm 1.15$ ) refer (table 4).

**Table 4: The psychological factors characteristic of study participants among regular undergraduate students of Jimma University, November 2021.**

	Coping style	Mean $\pm$ SD
Approach	Active coping, items 2 and 7	6.01 $\pm$ 1.11
	Emotional support, items 5 and 15	5.69 $\pm$ 1.14
	Use of informational support, items 10 and 23	5.66 $\pm$ 1.05
	Positive reframing, items 12 and 17	5.71 $\pm$ 0.98
	Planning, items 14 and 25	5.61 $\pm$ 1.13
	Acceptance, items 20 and 24	5.75 $\pm$ 1.01
	Total score of approach coping styles	34.43 $\pm$ 6.4
Neither/nor	Humor, items 18 and 28	5.74 $\pm$ 1.92
	Religion, items 22 and 27	5.65 $\pm$ 0.98
	Total score of neither nor coping style	11.39 $\pm$ 2.9
Avoidant	Self-distraction, items 1 and 19	6.13 $\pm$ 1.15
	Denial, items 3 and 8	5.89 $\pm$ 1.03
	Substance use, items 4 and 11	5.81 $\pm$ 1.03
	Behavioral disengagement, items 6 and 16	5.67 $\pm$ 1.17
	Venting, items 9 and 21	5.64 $\pm$ 1.08
	Self-blame, items 13 and 26	5.61 $\pm$ 1.12
	Total score of avoidant coping style	34.75 $\pm$ 6.58
The over all score of coping styles		80.57 $\pm$ 15.9
Level		N (%)
Resilience	Low level	269(35.87)
	Moderate level	344(45.87)
	High level	137(18.26)

#### 5.4 COVID-19 related factors characteristic of respondents

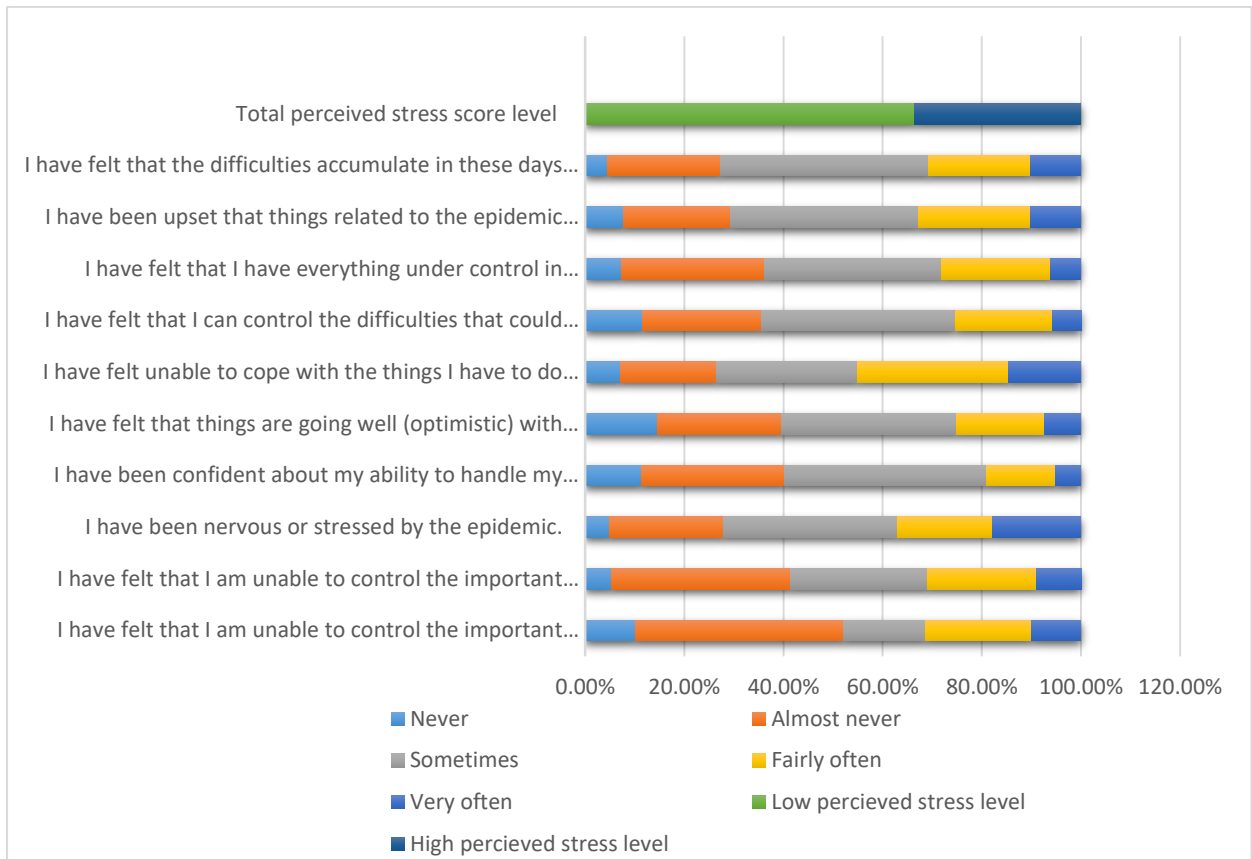
Among all respondents, 380(50.7%) of respondents have moderate protective behaviors toward COVID-19 and 44.9% of respondents have low precautionary measure toward COVID-19. Those participants who reported fear of getting COVID-19 was around 312(41.6%). From all participants, 15(1.99%) of them reported as their relatives were died due to COVID-19 pandemic and 460(61.3%) of respondents reported as their relatives experienced COVID-19 symptoms refer (figure 4).



**Figure 4: COVID-19 related factor characteristics of study participants among regular undergraduate students of Jimma university, November 2021 (N=750).**

### 5.5 Prevalence of perceived stress during COVID-19 pandemic among regular undergraduate of Jimma university students

The mean score of perceived stress was  $19.6 \pm 10.8$ . The item “I have felt that the difficulties accumulate in these days of the pademic and I feel unable to overcome them” has highest mean score ( $2.09 \pm 1.01$ ). In this study, the prevalence of high perceived stress was 33.5%.



**Figure 5: Perceived stress score of study participants among regular undergraduate students Jimma university, November 2021 (N=750).**

### 5.6 Factors associated with the perceived stress level among study participants of regular undergraduate students of Jimma University (N=750)

In bivariate logistic regression analysis, being females (AOR=1.88 95%CI (1.38-2.56), rural residency (AOR=1.22, 95%CI (0.89-1.68), widowed participants (AOR=1.88, 95%CI (0.71-4.95), respondents from institutes of health (AOR=1.40, 95%CI (0.81-2.42), third year (AOR=0.71, 95%CI (0.37-1.36) and fourth year respondents (AOR=0.43, 95%CI (0.18-1.00),

having family history of chronic physical illness (AOR=2.07, 95%CI (1.51-2.82), family history of mental illness (AOR=1.61, 95%CI (1.15-2.25), alcohol use (AOR=2.01, 95%CI (1.44-2.82), tobacco use (AOR=2.51, 95%CI (1.73-3.64), khat use (AOR=1.40 95%CI (1.01-1.93), he/she fear of getting COVID-19 (AOR=1.21, 95%CI (0.89-1.64), having of low resilience level (AOR=1.49, 95%CI (0.97-2.33), having poor social support (AOR=1.37 95%CI (0.83-2.26), having moderate social support (AOR=0.71, 95%CI (0.43-1.20), having low Protective Behaviors towards COVID-19 (AOR=1.72, 95%CI (1.04-2.84) and low precautionary measures toward COVID-19 (AOR=1.86, 95%CI (1.14-3.03) were significantly associated with high perceived stress level. From subscales of coping styles planning (AOR=1.32, 95%CI (0.97-1.79), acceptance (AOR=0.59, 95%CI (0.43-0.82) and religion (AOR=0.57, 95%CI (0.42-0.79) were significantly associated. So, they were candidates for multi-variate logistic regression analysis.

Since, the sample size of this study was greater than 450, enter method of analysis was used in running the candidate variables of multivariate analysis. A multivariable logistic regression analysis was used to retain factors at a significance level of less than 0.05. The goodness of fit and multicollinearity analysis first checked among those variables had association on bivariate analysis before final model and all candidates for final model had variance inflation factor less than 1.2 and tolerance greater than 0.83. Therefore there was no issues of collinearity. The Hosmer and Lemeshow Test was 0.758 and Nagelkerke, R Square 0.221.

After adjusting cofounders, in multivariable logistic regression analysis, being female, have family history of chronic physical illness, participants use alcohol, having low resilience level, having low social support and having low precautionary measures towards COVID-19. The odds of high perceived stress was nearly one and half times higher among females than male (AOR=1.66, 95%CI (1.15-2.40). Like wise, the odds of high perceived stress were nearly one and half times higher among participants who have family history of chronic physical illness than those who were not have family history of chronic physical illness (AOR = 1.64, 95% CI (1.15-2.35). similarly, the odds of high perceived stress were nearly two times higher among alcohol users than non-alcohol users (AOR = 1.82, 95% CI (1.20-2.77). additionally, the odds of high perceived stress were nearly two times higher among participants with low resilience level than participants with high resilience level (AOR = 1.71, 95% CI (1.02-2.87). The odds of high perceived stress were almost two times higher among participants with low social support than participants with high social support (AOR = 2.30, 95%CI (1.26-4.19) and Lastly, the odds of high perceived stress were almost two times higher among participants with low

precautionary measures than participants with high precautionary measures (AOR = 1.93, 95%CI (1.06-3.51) were independently associated with high perceived stress level.

**Table 6: Multivariable logistic regression analysis to identify factors associated with high perceived stress level among regular undergraduate students of Jimma University (N=750).**

Variables		Perceived stress		COR and 95% CI	p-value	AOR and 95%CI	P value
		Low N (%)	High N (%)				
Sex	female	212(59.2)	146(40.8)	1.88 (1.38-2.56)	0.00*	1.66(1.15-2.40)	0.007**
	Male	287(73.2)	105(26.8)	1		1	
Age	18-25	281(64.9)	152(35.1)	1.19(0.88-1.62)	0.267	-	-
	>25	218(68.8)	99(31.2)	1		1	
Marital status	Married	41(71.9)	16(28.1)	1		1	
	Single	398(66.4)	201(33.6)	1.29(0.71-2.36)	0.40	0.91(0.47-1.77)	0.79
	Separated	45(66.2)	23(33.8)	1.31(0.61-2.82)	0.49	1.21(0.52-2.85)	0.66
	Widowed	15(57.7)	11(42.3)	1.88(0.71-4.95)	0.20*	1.48(0.49-4.46)	0.49
Residence	Urban	192(69.3)	85(30.7)	1		1	
	Rural	307(64.9)	166(35.1)	1.22(0.89-1.68)	0.17*	1.34(0.91-1.96)	0.14
Living with family	Yes	102(69.4)	45(30.6)	1.18(0.8-1.74)	0.414	-	-
	No	397(65.8)	206(34.2)	1		1	
Family size	Nuclear	122(63.5)	70(36.5)	1		1	-
	Joint	377(67.6)	181(32.4)	0.84(0.59-1.18)	0.309	-	
Family monthly income	≤ 2565	264(64.9)	143(35.1)	1.18(0.87-1.60)	0.292	-	-
	> 2565	235(68.5)	108(31.5)	1		1	

<b>Colleges</b>	Technology	95(70.4)	40(29.6)	1		1	
	Institute of Health	63(63)	37(37)	1.40(0.81-2.42)	0.24*	1.56(0.83-2.92)	0.169
	Agricultural	65(65)	35(35)	1.28(0.74-2.22)	0.383	0.87(0.43-1.75)	0.692
	Business & economics	23(65.7)	12(34.3)	1.24(0.56-2.73)	0.595	1.44(0.55-3.78)	0.465
	Law & Governance	18(72)	7(28)	0.92(0.36-2.38)	0.870	1.22(0.40-3.38)	0.726
	Behavioral Science	19(76)	6(24)	0.75(0.28-2.02)	0.569	0.56(0.18-1.76)	0.318
	Computational Science	63(63)	37(37)	1.40(0.81-2.42)	0.235*	1.03(0.52-2.05)	0.938
	Social science	123(68.3)	57(31.7)	1.10(0.68-1.79)	0.698	1.40(0.76-2.58)	0.286
	Pre-colleges	30(60)	20(40)	1.58(0.81-3.11)	0.183	0.68(0.12-3.99)	0.669
<b>Years of study</b>	1 <sup>st</sup> year	28(56.0)	22(44.0)	1.25(0.55-2.85)	0.599	2.63(0.39-17.5)	0.319
	2 <sup>nd</sup> year	188(63.7)	107(36.3)	0.90(0.47-1.73)	0.761	1.24(0.53-2.89)	0.616
	3 <sup>rd</sup> year	204(69.2)	91(30.8)	0.71(0.37-1.36)	0.303	0.83(0.36-1.91)	0.664
	4 <sup>th</sup> year	55(78.6)	15(21.4)	0.43(0.18-1.00)	0.049*	0.47(0.18-1.23)	0.122
	5 <sup>th</sup> year	24(60.0)	16(40.0)	1		1	1
<b>Family chronic physical illness</b>	Yes	155(56.2)	121(43.8)	2.07(1.51-2.82)	0.000*	1.64(1.14-2.35)	0.007**
	No	344(72.6)	130(24.4)	1		1	
<b>Family history of mental illness</b>	Yes	114(58.5)	81(41.5)	1.61(1.15-2.25)	0.006*	1.45(0.94-2.23)	0.09
	No	385(69.4)	170(30.6)	1		1	
<b>Alcohol</b>	Yes	107(54.6)	89(45.4)	2.01(1.44-2.82)	0.00*	1.82(1.20-2.77)	0.005**
	No	392(70.8)	162(29.2)	1		1	
<b>Tobacco</b>	Yes	70(49.0)	73(51.0)	2.51(1.73-3.64)	0.00*	1.63(1.01-2.61)	0.052
	No	429(70.7)	178(29.3)	1			
<b>Khat</b>	Yes	141(61.3)	89(38.7)	1.40(1.01-1.93)	0.044*	0.96(0.64-1.44)	0.85
	No	358(68.8)	162(31.2)	1		1	
<b>Shisha</b>	Yes	84(63.2)	49(36.8)	1.2(0.81-1.77)	0.363	-	-
	No	415(67.3)	202(32.7)	1		1	
<b>Resilience level</b>	Low	167(60.5)	109(39.5)	1.49(0.97-2.33)	0.071*	1.71(1.02-2.87)	0.042**
	Moderate	178(63.1)	104(36.9)	1.03(0.67-1.58)	0.898	1.29(0.78-2.13)	0.33
	High	154(80.2)	38(19.8)	1		1	
<b>Social support</b>	Poor	211(59.8)	142(40.2)	1.37(0.83-2.26)	0.217*	2.30(1.26-4.19)	0.007**
	Moderate	231(74.0)	81(26.0)	0.71(0.43-1.20)	0.202*	0.95(0.52-1.73)	0.87
	High	57(67.1)	28(32.9)	1		1	

Protective Behavior Of COVID	Low	128(61.5)	80(38.5)	1.72(1.04-2.84)	0.035*	1.41(0.79-2.53)	0.25
	Moderate	256(67.4)	124(32.6)	0.83(0.53-1.29)	0.406	0.71(0.43-1.19)	0.19
	High	115(71.0)	47(29.0)	1		1	
Precaution measures COVID-19	Low	206(61.1)	131(38.9)	1.86(1.14-3.03)	0.013*	1.93(1.06-3.51)	0.032**
	Moderate	214(69.7)	93(30.3)	1.27(0.77-2.1)	0.346	1.67(0.91-3.06)	0.097
	High	79(74.5)	27(25.5)	1		1	
Fear of getting COVID-19	Yes	200(64.1)	112(35.9)	1.21(0.89-1.64)	0.234*	1.18(0.79-1.76)	0.42
	No	299(68.3)	139(31.7)	1		1	
Experienced COVID-19	Yes	152(66.1)	78(33.9)	1.03(0.74-1.43)	0.863	-	-
	No	347(66.7)	173(33.3)	1		1	
Relatives suspected By COVID-19	Yes	187(68)	88(32)	0.9(0.66-1.24)	0.517	-	-
	No	312(65.7)	163(34.3)	1		1	
Relatives experienced COVID-19	Yes	313(68)	147(32)	0.84(0.62-1.150)	0.270	-	-
	No	186(64.1)	104(35.9)	1		1	
Relatives died by COVID-19	Yes	103(69.1)	46(30.9)	0.86(0.59-1.27)	0.454	-	-
	No	396(65.9)	205(34.1)	1		1	
Self-distract	$\leq 6.13 \pm 1.15$	287(65.2)	153(34.8)	1.15(0.85-1.57)	0.367	-	-
	$> 6.13 \pm 1.15$	212(68.4)	98(31.6)	1		1	
Substance use	$\leq 5.81 \pm 1.03$	184(64.6)	101(35.4)	1.15(0.85-1.57)	0.370	-	-
	$> 5.81 \pm 1.03$	315(67.7)	150(32.3)	1		1	
Venting	$\leq 5.64 \pm 1.08$	245(68.2)	114(31.8)	0.86(0.64-1.17)	0.341	-	-
	$> 5.64 \pm 1.08$	254(65)	137(35)	1		1	
Blaming	$\leq 5.61 \pm 1.12$	235(67.1)	115(32.9)	0.95(0.7-1.29)	0.741	-	-
	$> 5.61 \pm 1.12$	264(66)	136(34)	1		1	
Denial	$\leq 5.89 \pm 1.03$	144(64.3)	80(35.7)	1.15(0.83-1.60)	0.395	-	-
	$> 5.89 \pm 1.03$	355(67.5)	171(32.5)	1		1	
Disengagemet	$\leq 5.67 \pm 1.17$	201(64.8)	109(35.2)	1.14(0.84-1.55)	0.409	-	-
	$> 5.67 \pm 1.17$	298(67.7)	142(32.3)	1		1	
Planning	$\leq 5.61 \pm 1.13$	234(63.4)	135(36.6)	1.32(0.97-1.79)	0.075*	1.36(0.93-1.99)	0.11
	$> 5.61 \pm 1.13$	265(69.6)	116(30.4)	1		1	
Coping	$\leq 6.01 \pm 1.11$	317(65.5)	167(34.5)	1.14(0.83-1.57)	0.417	-	-
	$> 6.01 \pm 1.11$	182(68.4)	84(31.6)	1		1	

Acceptance	$\leq 5.75 \pm 1.01$	206(73.6)	74(26.4)	0.59(0.43-0.82)	0.002*	0.70(0.46-1.05)	0.84
	$> 5.75 \pm 1.01$	293(62.3)	177(37.7)	1		1	
Information	$\leq 5.66 \pm 1.05$	220(64.9)	119(35.1)	1.14(0.84-1.55)	0.388	-	-
	$> 5.66 \pm 1.05$	279(67.9)	132(32.1)	1		1	
Emotional support	$\leq 5.69 \pm 1.14$	229(68)	108(32)	0.89(0.66-1.21)	0.457	-	-
	$> 5.69 \pm 1.14$	270(65.5)	143(34.6)	1		1	
Reframing	$\leq 5.71 \pm 0.98$	224(68.2)	105(31.9)	0.88(0.65-1.20)	0.462	-	-
	$> 5.71 \pm 0.98$	275(65.3)	146(34.8)	1		1	
Humor	$\leq 5.74 \pm 1.92$	190(64.4)	105(35.6)	1.17(0.86-1.59)	0.321	-	-
	$> 5.74 \pm 1.92$	309(67.9)	146(32.1)	1		1	
Religion	$\leq 5.65 \pm 0.98$	215(72.1)	83(27.9)	0.57(0.42-0.79)	0.008	0.71(0.48-1.03)	0.071
	$> 5.65 \pm 0.98$	284(62.8)	168(37.2)	1		1	

“\*” Indicates factors associated with high perceived stress level in bi-variate analysis,

P value  $\leq 0.25$ ,

“\*\*\*” Indicates factors associated with high perceived stress level in multi-variate analysis, p value  $< 0.05$ , 1= reference category,

Mean and standard deviation was used for categorizing subscales of coping strategy.



## **CHAPTER SIX: DISCUSSION**

The finding of this study revealed that many participants were currently experiencing high perceived stress in Jimma University. The prevalence of high perceived stress is found to be 33.5% with 95%CI: (30%-37%).

The finding of this study is in line with study carried out in Jimma University (35.9%), Banch sheko (32.5%), Taibah University (30.2%) and USA (43,46,69–71).

The finding of this study was higher than studies done in Egypt (14.2%), Saud Arabia (24.28%), Qatar (12.6%), India (13.35%), Cuba (14%), Vietnam (1.6%), France (22%) and Colombia (14.3%) (13,37–40,45,72–74). The discrepancy of this findings was accounted by different factors. The study done in Egypt used an online survey with snowball sampling. The data was collected by Depression Anxiety Stress Scale-21 (DASS-21) tool, which contradicts to our study, which used PSS-10-C and not used online survey. The study done Saud Arabia, recruited undergraduate Medical Students with small sample size and used Kessler 10 Psychological Distress tool to collect the data which is not specific to measure perceived stress associated with COVID-19 and contracted with our study, which is used COVID-19 specific tool with large sample size from all university students. In study done Qatar, recruited small number of participants and they are from high socio-economic status.

The study done in India recruited only BSc Nursing students with small sample size. In that study, they used PSS-10 tool is used to measure stress as general and not specified to measure perceived stress associated with COVID-19. In contrast, our study used large sample size and used tools specified to measure perceived stress level associated with COVID-19. The study done in Cuba recruited respondents from medical students with small sample size, unlike our study recruited all university students with a large sample size. We used the same tool with different cut points. In that study they used 20 cut point to categorize low and high perceived stress level, while our study used 25.

The study done in Vietnam recruited students (public health and preventive medicine only), which might reflect the significant difference from our study population. This might be explained by the fact that, students from public health and preventive medicine may have better knowledge and skills in dealing with health-related problems in compare to other fields of study. But, our study included all university students. There is also a cross-country discrepancies of using perceived stress scale cut-point amid the COVID-19 pandemic, they

used, low (0-13), moderate (14-27) and high (28-40) while we used low (< 25) and high (greater than or equals to 25), which is specified to measure perceived stress related to COVID-19.

The study done in France used an online survey which could have contributed to some bias in the study results. First, there could be selection bias because only students who were familiar with web-based surveys would have responded. It may led to an overestimation or underestimation of the prevalence of students with high perceived stress level. Additionally, they took sample from single of France and difficult to generalize their results to all France university students. In contrast, our study used multi-stage sampling method and offline survey which have high probability of generalizing our result.

The study done in Colombia used lower sample size than our study and unlike our study, that study recruited professors, students, and health professionals by snow ball method, while our study enrolled only students and used large sample size which was selected by multi-stage random sampling techniques. Additionally, that study recruited employed adults and it might be a protective factors for stress.

But, the finding of this study is lower than studies done in and Pakistan (53.5%) and California (49.6%) (31,42). The study done in Pakistan also show that, increased prevalence and it might be due to the fact that, students from dental medicine have high contact with patient's oral area and the COVID-19 is highly transmitted by physical contacts. In addition, the study used a voluntarily filled online questionnaire which has high risk to over determination of the result. On the other hand, Dental professionals are at increased risk but equally play an important role in reducing transmission with others (75).

The study done in California recruited both college and high school students by using PSS-4, unlikely to our study which used PSS-10-C. In that study, they used small sample size and an internet-based survey was used in contrast to our study. Additionally, this high prevalence might be due to California population was one of the first states to get more affected by COVID-19 and may be a consequence of potentially more stringent lockdown measures.

Regarding factors associated with prevalence of high perceived stress level, this study finding revealed that females, having family history of chronic medical illness, alcohol use, low precautionary measures, low resilience level and poor social support.

From the result of this study, females (AOR=1.66(1.15-2.40)) were nearly one and half times more likely develop high perceived stress than males. Most study support that females are more

prone to develop high perceived stress during COVID-19 and consistent result was found from study done in Egypt, Kingdom of Saud Arabia, South - east Serbia, Turkey, France and New Jersey (38,45,69,70,72,76). The reason might be due to the females are more emotionally perceived about stress than males (77). The global survey of higher education also indicate that, females are more affected by effects of this pandemic in their personal and emotional lives (78). Another reason might be due to their hormonal variation from males and their thoughts about their social situation. Thus, they may perceive a more significant impact of stressful life events like the COVID-19 pandemic (77–79).

Like wise, this study revealed that, participants with having family history of chronic physical illness (AOR=1.64(1.14-2.35)) were nearly one and half times more likely develop high perceived stress during COVID-19 pandemic than their quarter parts. This result is consistent with study done in Egypt, Turkey and World Health Survey (45,74,76). The reason might be weakening of immune system and physical strength are a factor that exacerbate COVID-19 disease (80). The other reason might be that, COVID-19 increases the likelihood of morbidity and mortality in individuals with chronic diseases (81).

Similarly, alcohol use (AOR=1.82(1.20-2.77)) was significantly associated and they were nearly two times more likely develop high perceived stress than non-alcohol users. This finding is supported with study done in France (38). It might be due to remained possible to purchase alcohol at any supermarket in France for the duration of the lockdown despite the closures of restaurants, bars and night clubs. Similarly, during this study, there is no restriction to use alcohol and it is easily available. Other evidence might be that, many students relied on negative coping methods, such as drinking to overcome stress and self-management (82,83) and among higher education students, socializing is the most important driving factor for alcohol consumption (84,85). But, the COVID-19 pandemic reduced the opportunity for socializing among higher education students, and their living situations was highly disturbed, socialization disturbed which is more likely contrubed to high perceived stress among higher education students during the COVID-19 pandemic.(86).

Additionally, our study finding show that participants with low precautionary measures (AOR=1.41(0.79-2.53)) were nearly one and half times more likely develop high perceived stress than those with high precautionary measures. This result is supported by the study done in Turkey (76). During the COVID-19 pandemic, the application of high precautionary and protective measures by individuals reduce the level of possible perceived stress. Individuals

with high precautionary measures relies that the only way to reduce the effects of COVID-19 is using precautionary and protective measures and reversibly, those who not strictly used precautionary measures may have suspiciousness toward every things he contacted and alarmed to stress (87) .

Similarly, participants with poor social support (AOR=2.30(1.26-4.19)) were significantly associated with high perceived stress. The result indicate that participants with poor social support were almost two times more likely develop high perceived stress than those with high level of social support. This result has an agreement with study done in Thailand (88). The reason might be that, from participant's report of our study, many students were came from family with low family income and possibly, in addition to many predisposing factors in life situation, the COVID-19 restrict socialization (difficult to work together, buying and selling things), which is a means of helping their children in many family (89) .

Lastly, in this study, participants with low resilience levels (AOR=1.71(1.02-2.87)) were nearly one and half times more likely develop high perceived stress than participants with high resilience level. This finding is consistent with study done in Turkey, Spain and systematic review (90–92). The reason might be that resilience is pivotal to cope with stress and vital to stay in balance (93). Students with high perceived stress level were experiences more likely have low level of resilience, adaptive coping strategy and social support (45). Resilient peoples are more capable of dealing with fears from COVID-19 stresses, experiencing positive emotions and thoughts, and seeking the necessary social support from family, friends, and teachers, all of which allows them to actively cope with stress (94).

### **6.1 Weakness of this study**

Recall bias was major limitation, as dependent variables depends on self-report of events or experience, there could have been inability of recalling events. There might be social desirability bias and result under or over reporting, particularly data related to the consumption of products or the COVID-19 related practice.

## **CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION**

### **7.1 conclusion**

In our study the prevalence of perceived stress was high as compared with study done in abroad and consistent with study done in entire the country. The finding of this study indicates one in three regular undergraduate students were found to have high perceived stress which is related to COVID-19 pandemic in Jimma University. This implies that high perceived stress related to this pandemic is a public health concern because, it leads to psychological, social and academic problems. According to the result of our study factors such as being female, family history of chronic physical illness, alcohol use, poor social support, low resilience level and low precautionary measures towards COVID-19 were significantly associated with high perceived stress level.

Knowing and understanding of the the magnitude of perceived stress related to this pandemic and its multifactorial risk is very important in managing students life situation of daily life. University is a special context in which students have to manage stressful situations and maintain a state of psychological equilibrium by using different personal strategies with consideration of the cultural context in which individual's culture affects our stress perception and individual choice of coping strategies (95).

### **7.2 Recommendation**

**To Jimma University:** It is better to consider as an input to formulate resilience training program which is important to improve student's ability to respond to stressful events and other negative psychological and emotional distress like this COVID-19 pandemic.

It is good to give training as a fundamental course related with COVID-19 pandemic for university students and females may get benefit from additional support and guidance during the COVID-19 pandemic.

As substance free group may decrease the prevalence of substance use, facilitating and encouraging substance free groups in the university environment is very important to reduce substance related stress during COVID-19

**To ministry of health:** To consider this research as an input for formulating health system strategies to provide crisis-oriented psychological services for students.

**For researchers:** it is good to conduct prospective cohort study to identify cause and effect of high perceived stress and associated factors.

## Annexes

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## WRITTEN CONSENT AND INFORMATION SHEET

My name is Beshir Mammiyo. I am doing this research for the partial fulfillment of the requirements for a master's of science degree in integrated clinical and community mental health. Your cooperation and honest participation in filling questionnaires will provide me valid result and help me to make recommendation of different type of relevant intervention; hence I request you to participate honestly. Your participation in filling the prepared questionnaires and every aspect of the study is completely voluntary. You may skip any question that you prefer not to answer, but I would appreciate your cooperation.

You may also ask question to clarify if you do not understand them. If you do not want to participate on this study for different reason that makes you not to participate you do so either at the beginning you can stop participating during the participation period. However I advise you to participate as your involvement in the study is precious and indirectly you are helping other students like you to get the necessary health services in the country. Your name will not be written in this form (your participation is anonymous) and your responses to our questions are identified only by code number. All information that you give me will be kept confidential and the release of information will be general not by each individual. Do you agree to participate in this study?

1. Yes

2. No

Name of supervisor \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Name of principal investigator \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_



## Questionnaires

**Part 1:** Socio-eco-demographic characteristics of participants and its related questionnaires.

Instruction: the following question asks about Socio-Demographic Characteristics of Respondents and their family. Please, encircle the option that represent the participant's experience.

S. No	Socio-Demographic Characteristics	
SD.101	Sex	<ol style="list-style-type: none"> <li>1. Male</li> <li>2. Female</li> </ol>
SD.102	Age (years)	<ol style="list-style-type: none"> <li>1. <math>\leq 20</math></li> <li>2. 21-24</li> <li>3. <math>&gt; 24</math></li> </ol>
SD.103	Religion	<ol style="list-style-type: none"> <li>1. Muslim</li> <li>2. Orthodox</li> <li>3. Protestant</li> <li>4. Others</li> </ol>
SD.104	Marital status	<ol style="list-style-type: none"> <li>1. Single</li> <li>2. In relation</li> <li>3. Married</li> <li>4. Separated</li> </ol>
SD.105	Ethnicity	<ol style="list-style-type: none"> <li>1. Oromo</li> <li>2. Amhara</li> <li>3. Tigre</li> <li>4. Gurage</li> <li>5. Yem</li> <li>6. Others</li> </ol>
SD.106	Residence	<ol style="list-style-type: none"> <li>1. Urban</li> <li>2. Rural</li> </ol>
SD.107	Are you living with your family or parents?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
SD.108	College of study	_____
SD.109	Year of study	_____
SD.110	The family monthly income (by ET Birr)	_____

SD.111	Do you have a chronic medical illness? like Diabetes mellitus, Heart disease, asthma, TB, Hypertension,	1. Yes 2. No
SD.112	Do you have any history of mental illness?	1. Yes 2. No
SD.113	Do you use any kind of substance such as Khat, alcohol, cigarette, for at least once in the last three months?	1. Yes 2. No
SD.114	Your family size (in number)	1. One 2. Two 3. Three and above
SD.115	Do you have any family history of mental illness?	1. Yes 2. No
SD.116	Do you have any family history of physical illness	1. Yes 2. No
SD.118	Do you have experienced COVID-19 symptoms?	1. Yes 2. No
SD.119	Do you have fear of infected by other things?	1. Yes 2. No
SD. 120	Do you have experienced COVID-19 symptoms?	1. Yes 2. No
SD.120	Do you have COVID-19 suspected relative?	1. Yes 2. No
SD.121	Do you have relatives who had died due to COVID-19?	1. Yes 2. No
SD.122	Do your relatives have experienced COVID-19?	1. Yes 2. No

**Part two:** This section is related to student's experience of COVID-19 related stress and encircle the numbers of your events or experience.

S.no	Questionnaires	Never	Almost never	Some times	Fairly often	Very often
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1.	I have felt affected as if something serious will happen unexpectedly with the pandemic.	0	1	2	3	4
2.	I have felt that I am unable to control the important things in my life due to the pandemic.	0	1	2	3	4
3.	I have been nervous or stressed by the epidemic.	0	1	2	3	4
4.	I have been confident about my ability to handle my personal epidemic related problems	0	1	2	3	4
5.	I have felt that things are going well (optimistic) with the pandemic	0	1	2	3	4
6.	I have felt unable to cope with the things I have to do to control the possible infection.	0	1	2	3	4
7.	I have felt that I can control the difficulties that could appear in my life due to the Infection.	0	1	2	3	4
8.	I have felt that I have everything under control in relation to the pandemic.	0	1	2	3	4
9.	I have been upset that things related to the epidemic are out of my control.	0	1	2	3	4
10.	I have felt that the difficulties accumulate in these days of the epidemic and I feel unable to overcome them	0	1	2	3	4

**Part 3:** this part contains resilience measuring questionnaires and it also, measures your personal experience after experiencing stressors.

S.no	Please respond to each item by marking one box per row	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I tend to bounce back quickly after hard times	1	2	3	4	5
2.	I have a hard time making it through stressful events.	1	2	3	4	5
3.	It does not take me long to recover from a stressful event.	1	2	3	4	5

4.	It is hard for me to snap back when something bad happens.	1	2	3	4	5
5.	I usually come through difficult times with little trouble	1	2	3	4	5
6.	I tend to take a long time to get over set-backs in my life	1	2	3	4	5

**Part 4:** Coping strategy related information

Instructions: The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style.

s.no	Items	Never	Some times	Ofte n	Most ly
1.	I've been turning to work or other activities to take my mind off things	1	2	3	4
2.	I've been concentrating my efforts on doing something about the situation I'm in.	1	2	3	4
3.	I've been saying to myself "this isn't real"	1	2	3	4
4.	I've been using alcohol or other drugs to make myself feel better	1	2	3	4
5.	I've been getting emotional support from others	1	2	3	4
6.	I've been giving up trying to deal with it.	1	2	3	4
7.	I've been taking action to try to make the situation better.	1	2	3	4
8.	I've been refusing to believe that it has happened.	1	2	3	4
9.	I've been saying things to let my unpleasant feelings escape.	1	2	3	4
10.	I've been getting help and advice from other people.	1	2	3	4

11.	I've been using alcohol or other drugs to help me get through it.	1	2	3	4
12.	I've been trying to see it in a different light, to make it seem more positive.	1	2	3	4
13.	I've been criticizing myself.	1	2	3	4
14.	I've been trying to come up with a strategy about what to do	1	2	3	4
15.	I've been getting comfort and understanding from someone.	1	2	3	4
16.	I've been giving up the attempt to cope	1	2	3	4
17.	I've been looking for something good in what is happening.	1	2	3	4
18.	I've been making jokes about it	1	2	3	4
19.	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	1	2	3	4
20.	I've been accepting the reality of the fact that it has happened.	1	2	3	4
21.	I've been expressing my negative feelings	1	2	3	4
22.	I've been trying to find comfort in my religion or spiritual beliefs	1	2	3	4
23.	I've been trying to get advice or help from other people about what	1	2	3	4
24.	I've been learning to live with it	1	2	3	4
25.	I've been thinking hard about what steps to take	1	2	3	4
26.	I've been blaming myself for things that happened	1	2	3	4
27.	I've been praying or meditating	1	2	3	4
28.	I've been making fun of the situation.	1	2	3	4

**Part 5:** social support related information

This part is related to social support information and OSLO-3 consists of three items is used to assessing the level of social support.

s.no	Items					
1.	How many people are so close to you that you can count on them if you have great personal problems?	1) none	2) 1-2	3) 3-5	4) >5	
2.	How much interest and concern do people show in what you do?	1. None	2.Little	3.Uncertain	4.Some	5. A lot
3.	How easy is it to get practical help from neighbors if you should need it?	1.very difficult	2. difficult	3. possible	4. easy	5.very easy

My score\_\_\_\_\_

**Part 6:** Protective Behaviors towards COVID-19 Scale is used to measure student's protective behaviors. Please, encircle the option that represents the participant's experience.

1: Not at all like me, 2: Not like me, 3: Not Sure, 4: Like me, 5: Just like me.

1	I keep my hands clean during the outbreak.	1	2	3	4	5
2	I cancel various parties in the event of COVID-19 outbreak immediately.	1	2	3	4	5
3	I cancel unnecessary travel plans in the event of COVID-19 outbreak immediately.	1	2	3	4	5
4	I do not visit any relatives or friends during the outbreak.	1	2	3	4	5
5	I cover my mouth and nose whenever I go out or in public.	1	2	3	4	5
6	If I get in contact with someone from COVID-19 outbreak area, I should isolate myself.	1	2	3	4	5
7	I shall report the health authorities if I have a family member who just came from COVID-19 outbreak area.	1	2	3	4	5
8	If my family member or my friend is in health condition after they come back from outbreak area, there is no need to take protective measures.	1	2	3	4	5
9	In my opinion, quarantine can be terminated in advance if there are no abnormal symptoms.	1	2	3	4	5
10	I should quarantine myself immediately if I have suspicious symptoms.	1	2	3	4	5

11	I can take medicine without doctor's suggestion as long my suspicious are still mild.	1	2	3	4	5
12	If I have suspicious symptoms, I should try to get medical help immediately from professional doctors.	1	2	3	4	5
13	Concealing medical history is not good for myself and others.	1	2	3	4	5
14	If there is a suspicious infection or a confirmed case at home, I should notify the health authorities as soon as possible.	1	2	3	4	5

**Part 7: COVID-19 Precautionary measure tool**

S. No	Question	Frequency	
		YES	NO
1.	Do you participate in meeting in any crowded place in areas with ongoing community transmission?		
2.	In recent days, have you worn a mask when leaving home?		
3.	If you yes, do you touch the front of the mask when taking it off?		
4.	Do you reuse the mask?		
5.	Do you wash your hands with soap and water frequently for at least 20 second or use sanitizer/60% sanitizer?		
6.	Do you touch your eyes, nose, and mouth frequently with unwashed hands?		
7.	Do you clean and disinfect frequently touched objects or surfaces?		
8.	Do you practice "physical distancing" by 2 meters away at all time?		
9.	Do you use other workers phone, desk office, or other equipment?		

10.	Do you limit contact (such as handshake)?		
11.	Do you eat or drink in bar and restaurant?		
12.	Do you cover your mouth and nose during coughing and sneezing with elbow or tissue, then throw the tissue in the trash?		
13.	Do you prefer to stay at home, in room with window open during the transmission period?		
14.	Do you stay at home when you are sick due to common cold-like infection during the transmission period?		
15.	Do you listen and follow the direction of your state local authorities?		

Over all practice \_\_\_\_\_



## Afan Oromo Version Questionnaire

## Guca waligaltee

Dhibeen sammuu yeroo amma dhibeen COVID-19 jedhamu Kun babaldhachaa jirutti dargaggootaa fi shammarran yuniversity barataa jiran irratti yeroodhaan barame yoo hin yaalamin sadarkaa olaanaadhaan dhukkuboota argaman keessaa isa tokko ta'a jedhame yaadama. Kanaafu bu'aan qu'anno kanaa isin barattoota yuniversity kaayyo keessan galmaan ga'udhaaf akkasumas barattoonni dhibee kanaaf saaxilaman yoo jiraatan gargaarsa ogeessa fayyaa akka argatan ni goodhama. Qu'anno kana Kan adeemsisuf barumsa sadarkaa maastarsi integrated clinical and community mental health galmaan ga'uf. Kaayyon qu'anno kanaa sadarkaa dhibee stress jedhamu barattoota yuniversity Jimmaa Kan bara 2021 irratti adamsifama. Eyyamummaan fi haqummaan gaaffi kana guutuuf hirmaachun keessan bu'aa dhugaa ta'e naaf kenna akkasumas rakkoo kana furuf na qarqaara. Kanaafuu haqummaan akka hirmaataan kabajaan isin gaafadha. Hirmaannan gaaffile kana guutuu fi qabiyyeen qu'anno kanaa guutumaa gututti feedhi keessan irratti Kan murtaa'e dha. Gaaffile debisu hin barbaanne yoo jiraate irra darbu dandessu garu gargaarsa keessan ni barbaanna. Gaaffilen isinif hin galle yoo jiraate ibsa nu gaafachu dandessu. Sababa adda addaatiin qu'anno kanarratti yoo hirmaachu hin barbaanne yeroo kamittu addaan kutuu ni dandeessu. Haa ta'u malee, hirmaannaan keessan Kan qarshitti hin shallagamne fi karaa biroottiin namoota dhibee kanarraa rakko adda addaa dabarsaa jiran gargaaraa jiraachu keessan akka hubattan barbaanna. Qu'anno kanarratti goonkumaa maqaan keessan hin barraa'u akkasumas ragaan isin kennitan lakkofsa isinif kennameen addaan baafama. Ragaawwan isin kennitan goonkumaa Nama birootti hin himamu/kennamu. Bu'aan qu'anno kanaa Kan ibsamu waligalaan malee gonkuma dhunfaadhaan hin dhihaatuu/ibsamu. Qoranno kana irratti hirmaachuf eyyamamo dha?

1. Eyyeen

2.Lakki

Maqaa to'ataa.....Mallatoo.....Guyyaa.....

Maqaa Dursaa Qoraticha.....Mallatoo.....Guyyaa.....

## Ajaja 1ffaa.

### Gaaffile dhimma hawaasumma fi enyummaa addaan baasan

Gaaffile armaan gadi deebii filattan irra marsudhaan akkasumas gaaffile tokko tokkof bakka duwwaa irratti gutudhan deebisaa

Lakk.	Enyummaa fi hawaasumma	
SD.101	Sala	1. dhiira 2. dubara
SD.102	Umri (waggaadhan)	1. $\leq 20$ 2. 21-24 3. $> 24$
SD.103	Amantii	1. Muslima 2. Orthodoxi 3. Protestanti 4. Kannen biro
SD.104	Haala maatii /sadarkaa fuudhaaf heerumaa	1. fuudheera 2. hinfuune 3. hiikeera 4. adda baheera
SD.105	Saba kami	1. Oromo 2. Amhara 3. Tigre 4. Gurage 5. Yem 6. Kanneen biro
SD.106	Iddoo jireenyaa	1. Magaalaa 2. Baadiyaa
SD.107	Maatii wajjiin jiraattaayi?	1. eyyeen 2. lakki
SD.108	Kollejii kamitti baratta?	_____
SD.109	Waggaa meeqaffaadha?	_____
SD.110	Maatiin kee baatitti gaalii hangam argatu? (ET Birr)	_____

SD.112	Maatii/fira kee keessa namni dhibee qaamaa kanneen akka dhibee sukkaara, Aasmaa... dhibamee beeku jiraa?	1. Eyyeen 2. Lakki
SD.113	Maatii/fira kee keessaa namni dhibee sammuu dhibamee beeku jira?	1. Eyyen 2. Lakki
SD.114	Baatii darbe keessa wantoota suusii nama qabsiisan fayyadamtee beektaa?	1. Eyyeen 2. Lakki
	Maal fayyadamte?	1. Alkoolii 2. Caatii/jimaa 3. Sigaaraa 4. Shiishaa
SD.115	Maatiin keessan hammam (lakkofsan)	1. 1-4 ( neuclar) 2. >4 (joint)
SD.118	Dhibee COVID-19 qabamtee beektaa?	1. Eyyeen 2. Lakki
SD.119	Dhibee COVID-19 ni qabama jettee sodaattee beektaa?	1. Eyyeen 2. Lakki
SD.120	Maatiin kee dhibee COVID-19n shakkamanii beekuu?	1. Eyyeen 2. Lakki
SD.121	Maatiin/firri kee dhibee COVID-19n du, anii jiruu?	1. Eyyeen 2. Lakki

### Ajaja 2ffaa:

Dhimma waa, ee wanta sammuu isaanii rakkisani fi ta, iiwwan barattooni baatii darbe keessa dabarsan ilaallata.

Lakk.	Gaafilee	gonk umaa	Yeeroo murasaa	altokko tokko	Yeeroo Bay,ee	Yeeroo hunda
1.	Baatii darbe keessa, sababa wantootni osoo ati itti hin yaadin raawwatamanin hammam aartee beekta?	0	1	2	3	4

2.	Baatii darbe keessa, hammam wanti raawatamu hunduu too, anna kiyyaa ol jettee sitti dhagayamee beeka?	0	1	2	3	4
3.	Baatii darbe keessa, hammam miirri aarii cimaan sitti dagahamee beeka?	0	1	2	3	4
4.	Baatii darbe keessa hammi miirri gahuumsa qabaachuu sitti dhagahamee beeka?	0	1	2	3	4
5.	Baatii darbe keessa hammam wanti raawwatamaa jiru akka fedha keetiti deemaa ture	0	1	2	3	4
6.	Baatii darbe keessa hammam wanta raawwatamaa jiru kana dandamachu hin danda, u jettee yaaddee beekta?	0	1	2	3	4
7.	Baatii darbe keessa hammam miira aarii kee to, attee beekta?	0	1	2	3	4
8.	Baatii darbe keessa hammam wanta ta, amaa jiru too, annaa jala galfattee?	0	1	2	3	4
9.	Baatii darbe keessa hammam aartee turte sababa wantootni too, annaa keetii ol ta, aniif?	0	1	2	3	4
10.	Baatii darbe keessa hammam wantootni ta, amaa jiran hundi human keeti oli jette sitti dhagahamee?	0	1	2	3	4

**Ajaja 3ffaa:**

Kutaan Kun waa, ee dandamannaa fi dhiphinna sammuu irraa fooyya, uu ilaallata.

Lakk.	Gaafilee	Baay,ee walii hin gallu	Walii hin gallu	Homaa	Walii galla	Baay,ee waliigalla
1.	Rakkinna na qunname booda, dafeeti haaala koo duraatti deebia	1	2	3	4	5
2.	Rakkina haala ulfaataa dhaan dabarsa	1	2	3	4	5
3.	Rakkinna booda, dafeet haala gaaritti deebia	1	2	3	4	5
4.	Rakkinna booda, dafeet haala gaaritti deebi,uun natti ulfaata	1	2	3	4	5
5.	Rakkinna booda, yeeroo hunda baay, ee natti ulfaata.	1	2	3	4	5
6.	Jireenya kiyya keessatti rakkinna irraa dubatti deebiuun baay, ee natti ulfaata.	1	2	3	4	5

**Ajaja 4ffaa:**

Gaafilee waa, ee dhiphinna sammuu irraa dandamachuu barattootaa ilaalata.

Lakk.	Gaafilee	Gonk umaa	Altokko tokko	Yeeroo baay,ee	Yeeroo hunda

1.	Rakkina booda dafeeti gara hojii kootti deebia, sammuu kiyya boqachiisuuf	1	2	3	4
2.	Wanta hojjachaa jiru xiyyeefannaadhan hojjadha.	1	2	3	4
3.	Wanti ta,aa jiru dhugaa miti jedhee sammuu koo of amansiisa	1	2	3	4
4.	Dhugaatii kanneen akka alkooli fayyadama sammuu koo dandamachiisuuf	1	2	3	4
5.	Gargaarsa yaadaa hiriyyota koo irraa fudha	1	2	3	4
6.	Waa,ee rakkinna Sanaa yaaduu dhiisa	1	2	3	4
7.	Rakkinna sana furuuf tankaaffi mataa kootii fudha.	1	2	3	4
8.	Rakkinni inuma taanee jedhee amana	1	2	3	4
9.	Haasawaan miira gaddaa ofirraa ballessa	1	2	3	4
10	Gargaarsaa fi gorsa namarraa fudha	1	2	3	4
11	Dhugaatii akka alkooli fa,a fayyadamee miira gaddaa ofirra dabarsa	1	2	3	4
12	Rakkinna raawwatamu akka positiviitti fudha	1	2	3	4
13	Of qeeqaa	1	2	3	4
14	Wan hojjadhu itti yaadee strategiidhan hojjadha	1	2	3	4
15	Mijaa,innaa fi hubannoo namarraa fudha	1	2	3	4
16	Dhaabsisuuf yaaluu itti dhiisa	1	2	3	4

17	Waan ta,amu keessa waan gaarii tokkon barbaada ture	1	2	3	4
18	Kolfaa fi taphaan ofirra dabarsa	1	2	3	4
19	Rakkinna dagachuu dhaf wannen akka TV, fiilmii fa,a ilaala	1	2	3	4
20	Rakkinnich dhuguma raawwatame jedhee of amansiisa	1	2	3	4
21	Fedhii koo isa hamaa agarsiisaa ture	1	2	3	4
22	Karaa amantiitin/hafuuraatin mijaayina barbaadaa ture	1	2	3	4
23	Gargaarsa namoota biro irraa barbaadaa ture	1	2	3	4
24	Rakkina danda,ee wajjiin jiraachuu barachaa jira	1	2	3	4
25	Tarkaaffi akkamii akka fudhadhu sirritti itti yaadaa jira	1	2	3	4
26	Wantoota ta,aniif of komadhaa	1	2	3	4
27	Salaataa ykn du,aayii godhataa ture	1	2	3	4
28	Itti baacaa ture	1	2	3	4

### Ajaja5ffaa:

Haala walqunnamtii hawaasummaa barattootaa ilaallata

Lakk.	Walqunnamti hawaasummaa	Deebii			
		1) Homaa na hin qaqqaban	2) 1-2	3) 3-5	4) >5
1.	Namoota meeqatu yeroo rakkoon isin qunname isin qaqqaba jeettani yaaddu?				

2.	Namoota meeqatu wanta isin dalagdaniif dhimmama ykn yaaddawa?	1.homaa	2.baay,e e xinnoo	3.hin barre	4.mura asa	5. heddu
3.	Hiriyyoota keessan keessaa ykn namoota siree wajjin hirattan irraa gargaarsa qabatama qabu argachuun keessan akkami?	1.baay,ee rakkisa	2. rakkisaa	3. gidduga leessa	4. salphaa	5.baay, ee salphaa

### Ajaja 6ffaa:

Dhimma waa, ee ofirraa ittisa dhibee COVID-19 ilaallata.

1: gonkuma akka Koo miti, 2: akka Koo miti, 3: sirritti hin beeku, 4: akka kooti, 5: sirrimatti akka kooti

1.	Yeeroo dhukkubni ka,ee jiru kanatti harka koo sirritti dhiqadha	1	2	3	4	5
2.	Yeeroo COVID-19 kana Paartii garagaraas hin deemuu, dafee yaada koo jijjiradha.	1	2	3	4	5
3.	Yeeroo COVID-19 kana deemsa barbaachisaa hin taanes hin deemu dafee yaada koo jijjiradha	1	2	3	4	5
4.	Yeeroo COVID-19 kana firaa fi hiriyyota koos deemee hin ilaalu	1	2	3	4	5
5.	Yeeroo COVID-19 kana yeeroo gara alaa bahu, afaanii fi funyaan kiyya haguugadhee deema	1	2	3	4	5
6.	Yemmuu nama naannoo COVID-19 itti baay, atu irraa dhufe wajjiin qaamaan wal tuqe dafee kophaa of baasa.	1	2	3	4	5
7.	Fira koo keessa namni naannoo COVID-19 itti baay, atu irraa dhufe argamnaan dafee buufata fayyaatti gabaasa.	1	2	3	4	5
8.	Yemmuu firri/hiriyyaan naannoo COVID-19 itti baay,atu irraa dhufe fayyaa qaamaa qabaate of eegannoo gochuun hin barbaachisu	1	2	3	4	5



9.	Akka yaada kootiti, kophaa of baasuun hafuu qaba yoo mallattoon dhukkubbii nama irraa bade.	1	2	3	4	5
10.	Yoo mallattoole dhukkubicha ofirratti arge dafee kophaa of baasuu qaba	1	2	3	4	5
11.	Mallatto dhukkubi ofirratti yoo shakke, gorsa ogeessa fayyaatiin alatti dawaa eegala	1	2	3	4	5
12.	Mallatto dhukkubi ofirratti yoo shakke, gorsa ogeessa fayyaatiin dawaa eegala	1	2	3	4	5
13.	Raga yaala fayyaa kootii dhoksuun anaa fi namoota biros ni miidha	1	2	3	4	5
14.	Dhukkubootni daddarbaan maatii keenya keessatti argamnaan dafee gara buufata fayyatti gabaasa	1	2	3	4	5

### Ajaja7ffaa:

Waa, ee dhimma of eeggannoo dhibee COVID-19.

Lakk.	Gaafilee	baayinna	
		Eyye	Lakki.
1.	Naannoo nammotni hedduminaan argamanitti walgayii irratti hirmaattee beektaa?		
2.	Guyyoota dhihoo kana keessatti, haguuggi afaanii uffattee manaa bahaa jirtaa?		
3.	Eyyen, yoo jette ofirraa baasuudhaaf fuuldura haguugichaa qabatee ofirraa baastaa?		
4.	Haguuggi afaanii fi funyaanii irra deebiidhaan itti fayyadamtaa?		

5.	Harka kee irra deddebiidhan bishaanii fi saamunaan rigdee hanga secondi 20f ni diqattaa ykn saniizerii ni fayyadamtaa?		
6.	Harka osoo hin dhiqatin irra deddebiidhan afaan, funyaanii fi ija kee ni tuttuqxaa?		
7.	Yemmuu waa tuqxe yeeroo yeerotti of qulqulleesitaa?		
8.	Fageenya meetra 2 namoota biraa iraa fagaachuu hojii irra oolchaa jirtaa?		
9.	Wantoota nama biroo kanneen akka bilbila harkaa fa, a ni fayyadamtaa?		
10.	Tuttuqi qaamaa kanneen akka harka wal fuudhuu dhiistee jirtaa?		
11.	Nyaata hoteela yookin restoranti irraa ni nyaattaa?		
12.	Yeeroo haxxifattuu fi qafaatu softiidhaan afaan haguugattee softicha iddoo namni biro hin tuqnetti ni gattaa?		
13.	Foddaa banaa gootee mana taa, uu ni jaalattaa?		
14.	Yeeroo dhukkubni daddarbaan akka qufaa si qabe mana taa, uu ni jaalattaa?		
15.	Tarsiimoo mootummaan siif kaaye dhageefattee ni hordoftaa?		

**የተፃፈ የይዘት እና የመረጃ ወረቀት**

ስሜ በሽር ማሟሎ እባላለሁ ። በተቀናጀ ክሊኒካዊ እና በማህበረሰብ የአእምሮ ጤና ውስጥ ለሳይንስ ማስተርስ የሚያስፈልጉትን መስፈርቶች በከፊል ለማሟላት ይህንን ምርምር እያደረግሁ ነው ። መጠይቆችን በመሙላት ረገድ የእርስዎ ትብብር እና በሐቀኝነት መሳተፍዎ ትክክለኛ ውጤት ያስገኛልኛል እናም የተለያዩ አይነት ተዛማጅ ጣልቃገብነቶችን ለመምከር ይረዳኛል; ስለሆነም በሐቀኝነት እንድትሳተፉ እጠይቃለሁ ። የተዘጋጁትን መጠይቆች እና እያንዳንዱ የጥናቱ ገጽታ በመሙላት ላይ ያለዎት ተሳትፎ ሙሉ በሙሉ በፈቃደኝነት ነው ። መልስ ላለመስጠት የመረጡትን ማንኛውንም ጥያቄ መዝለል ይችላሉ ፤ ግን ትብብርዎን አደንቃለሁ ።

እርስዎ ካልገባዎት ለማብራራትም ጥያቄን መጠየቅ ይችላሉ ። እንዳይሳተፉ በሚያደርግዎት በዚህ ምክንያት በዚህ ጥናት ላይ ለመሳተፍ የማይፈልጉ ከሆነ በመጀመሪያም እንዲሁ በተሳትፎ ወቅት መሳተፍዎን ማቆም ይችላሉ ። ሆኖም በጥናቱ ውስጥ ያለው ተሳትፎ ውድ ስለሆነ እና በተዘዋዋሪ እንደ እርስዎ ያሉ ሌሎች ተማሪዎች በአገሪቱ ውስጥ አስፈላጊ የጤና አገልግሎቶችን እንዲያገኙ እየረዳዎት ስለሆነ እንዲሳተፉ እመክራለሁ ። ስምዎ በዚህ ቅጽ አይፃፍም (ተሳትፎዎ የማይታወቅ ነው) እና ለጥያቄዎቻችን የሚሰጡ ምላሾች በኮድ ቁጥር ብቻ ተለይተው ይታወቃሉ ። የሚሰጡኝ ሁሉም መረጃዎች በሚስጥራዊነት ይቀመጣሉ እናም የመረጃ ልቀቱ አጠቃላይ የሚሆነው በእያንዳንዱ ግለሰብ አይደለም ። በዚህ ጥናት ውስጥ ለመሳተፍ ተስማምተዋል?

- 1. አዎ
- 2. አይደለም

**ክፍል-1: የስነ መሀበራዊ እና ስነ ህዝብ መለያ መጠይቅ**

መመሪያ 1: ይህ የስነ መሀበራዊ እና ስነ ህዝብ መለያ መጠይቅ ነው። እባክዎ እርሶዎን የሚወክለውን ምርጫ ያክብቡ እንዲሁም ተገቢውን መልስ በባዶ ቦታው ላይ ይሙሉ።

ቁጥር የስነ መሀበራዊ እና ስነ ህዝብ መለያ መረጃ መልስ

- SD.101 ፆታ 1. ወንድ 2. ሴት
- SD.102 እድሜ 1. ≤ 20 2. 21-24 3. > 24
- SD.103 ሀይማኖት 1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት  
4. ሌላ ከሆነ ይግለጹ \_\_\_\_\_
- SD.104 የትዳር ሁኔታ: 1. ያላገባ (ች) 2. የፈታ (ች) 3. ያገባ (ች) 4. የተለያየ (ች)
- SD.105 ብሄር: 1. ኦሮሞ 2. አማራ 3. ትግሬ 4. ጉራጌ  
5. የም 6. ሌላ ከሆነ ይግለጹ \_\_\_\_\_
- SD.106 የት ነበር የሚኖሩት? 1. ገጠር 2. ከተማ
- SD.107 እርስዎ ከጅም ነዎት ወይም ከጅም ውጭ ነዎት? 1. አዎ 2. አይደለም
- SD.108 የጥናት መስክ \_\_\_\_\_
- SD.109 የጥናት ዓመት \_\_\_\_\_
- SD.110 የወላጅዎ አመካይ የወር ገቢ መጠን ስንት ይሆናል ብለው ይገምታሉ? \_\_\_\_ ብር
- SD.111 በወር ባጠቃላይ ስንት የኪስ ብር ይላክሎታል? \_\_\_\_\_ ብር
- SD.112 ሥር የሰደደ የሕክምና በሽታ አለብዎት? እንደ የስኪር በሽታ ፣ የልብ ህመም ፣ አስም ፣ ቲቢ ፣ የደም ግፊት ፣ 1. አዎ 2. አይደለም
- SD.113 የአእምሮ ህመም ታሪክ ይኖርዎታል? 1. አዎ 2. አይደለም
- SD.114 ባለፉት ሶስት ወሮች ውስጥ ቢያንስ አንድ ጊዜ እንደ ጫት ፣ አልኮሆል ፣ ሲጋራ ያሉ ማንኛውንም ዓይነት ንጥረ ነገሮችን ይጠቀማሉ? 1. አዎ 2. አይደለም
- SD.115 የቤተሰብ ብዛት (በቁጥር) 1. አንድ 2. ሁለት 3. ሶስት እና ከዚያ በላይ
- SD.116 ማንኛውም የአእምሮ ህመም የቤተሰብ ታሪክ ይኖርዎታል? 1. አዎ 2. አይደለም
- SD.117 የአካል ህመም ያለዎት ማንኛውም የቤተሰብ ታሪክ አለዎት 1. አዎ 2. አይደለም
- SD.118 የ COVID-19 ምልክቶችን አጋጥመዎታል? 1. አዎ 2. አይደለም

- SD.119 ሌሎች ሰዎችን ለመበከል ይፈራሉ? 1.አዎ 2. አይደለም
- SD.120 COVID-19 የተጠረጠረ ዘመድ አለዎት? 1.አዎ 2. አይደለም
- SD.121 በ COVID-19 ምክንያት የሞቱ ዘመዶች አለዎት? 1.አዎ 2. አይደለም
- SD.122 ዘመዶችዎ ከዚህ በፊት COVID-19 አላቸው? 1.አዎ 2. አይደለም

**ክፍል ሁለት-** ይህ ክፍል ባለፈው ወር ከተፈጠረው የጭንቀት ተሞክሮ ጋር የተዛመደ ሲሆን ባለፈው ወር ውስጥ የተከናወኑትን ክስተቶች ወይም የልምድ ቁጥሮች ይዘጋል ።

ቁጥር መጠይቆች, በጭራሽ, በፍጹም, አንዳንድ ጊዜ, በአግባቡ ብዙውን ጊዜ, በተደጋጋሚ

- 1.ባለፈው ወር ባልታሰበ ነገር ሳቢያ ስንት ጊዜ ተሰላጭተሃል? 0 1 2 3 4
- 2.ባለፈው ወር በሕይወትዎ ውስጥ አስፈላጊ ነገሮችን መቆጣጠር እንደማትችሉ ምን ያህል ጊዜ ይሰማዎታል? 0 1 2 3 4
- 3.ባለፈው ወር ውስጥ ስንት ጊዜ የመረበሽ ስሜት እና ጭንቀት ይሰማዎታል? 0 1 2 3 4
- 4.ባለፈው ወር ውስጥ የግል ችግሮችዎን የመቋቋም ችሎታዎ ምን ያህል በራስ የመተማመን ስሜት ይሰማዎታል? 0 1 2 3 4
- 5.ባለፈው ወር ውስጥ ነገሮች በእርስዎ መንገድ ሲጓዙ ምን ያህል ጊዜ ተሰምቶዎታል? 0 1 2 3 4
- 6.ባለፈው ወር ውስጥ ማድረግ ያለብዎትን ነገሮች ሁሉ መቋቋም የማይችሉበት ምን ያህል ጊዜ አግኝተዋል? 0 1 2 3 4
- 7.ባለፈው ወር ውስጥ በህይወትዎ ውስጥ ብስጭቶችን ለመቆጣጠር ምን ያህል ጊዜ ነዎት? 0 1 2 3 4
- 8.ባለፈው ወር ውስጥ በነገሮች ላይ እንደሆነክ ምን ያህል ጊዜ ተሰማህ? 0 1 2 3 4
- 9.ባለፈው ወር ከቁጥጥርዎ ውጭ በሆኑ ነገሮች ምክንያት ስንት ጊዜ ተቆጥተዋል? 0 1 2 3 4
- 10.ባለፈው ወር ውስጥ እነዚህን ችግሮች ማሸነፍ እስኪያቅትዎት ድረስ ችግሮች ሲበዙ ምን ያህል ጊዜ ይሰማዎታል? 0 1 2 3 4

የተገነዘበ የጭንቀት ሚዛን ውጤት \_\_\_\_\_

**ክፍል 3:** ይህ ክፍል የመቋቋም ልኬቶችን መጠይቆችን ይ containsል እንዲሁም ጭንቀቶችን ካጋጠሙ በኋላ የግል ተሞክሮዎን ይለካል ።

ቁጥር መጠይቆች, በጣም አልስማማም, አልስማማም, ገለልተኛ እስማማለሁ-በጣም, እስማማለሁ

1. ከከባድ ጊዜ በኋላ በፍጥነት ወደ ኋላ የመመለስ አዝማሚያ አለኝ 1 2 3 4 5
2. በአስጨናቂ ክስተቶች በኩል ለማድረግ በጣም ተቸግሬያለሁ ። 1 2 3 4 5
3. ከአስጨናቂ ክስተት ለማገገም ብዙ ጊዜ አይወስድኝም ። 1 2 3 4 5
4. መጥፎ ነገር ሲከሰት መልሶ መምታቱ ለእኔ ከባድ ነው ። 1 2 3 4 5
5. ብዙውን ጊዜ በትንሽ ችግር ውስጥ በአስቸጋሪ ጊዜያት ውስጥ እመጣለሁ 1 2 3 4 5
6. በሕይወቴ ውስጥ ከኋላ-ጀርባዎችን ለማሸነፍ ብዙ ጊዜ እወስዳለሁ 1 2 3 4 5

የእኔ ውጤት: \_\_\_\_\_ ንጥል አማካይ / 6

**ክፍል 4.** ከስትራቴጂ ጋር የተያያዙ መረጃዎችን መቋቋም

መመሪያዎች- የሚከተሉት ጥያቄዎች በህይወትዎ ውስጥ የሚያጋጥሙትን ችግሮች ለመቋቋም እንዴት እንደረገጡ ይጠይቃሉ ። መግለጫዎቹን ያንብቡ እና እያንዳንዱን የመቋቋም ዘዴ ምን ያህል እንደተጠቀሙ ያመልክቱ።

ቁጥር መጠይቆች በጭራሽ, አንዳንድ ጊዜ, ብዙ ጊዜ, በአብዛኛው,

1. አእምሮዬን ከ ነገሮች ላይ ለማራገፍ ወደ ሥራ ወይም ወደ ሌሎች ሥራዎች ዘሬ ነበር: 1 2 3 4
2. በገባሁበት ሁኔታ ላይ አንድ ነገር ለማድረግ ጥረቴን አተኩሬያለሁ ። 1 2 3 4
3. ለራሴ “ይህ እውነት አይደለም” እያልኩኝ ነበር 1 2 3 4
4. ጥሩ ስሜት እንዲሰማኝ አልከል ወይም ሌሎች አደንዛዥ እጾችን እጠቀም ነበር: 1 2 3 4
5. ከሌሎች ስሜታዊ ድጋፍ እያገኘሁ ነው 1 2 3 4
6. እሱን ለመቋቋም መሞቴን ትቼ ነበር ። 1 2 3 4
7. ሁኔታውን የተሻለ ለማድረግ ለመሞከር እርምጃ እየወሰድኩ ነበር ። 1 2 3 4
8. ተከስቷል ብዬ ለማመን አሻፈረኝ አልኩ ። 1 2 3 4
9. ደስ የማይል ስሜቴን እንዲያመልጥ ነገሮችን እየተናገርኩ ነበር ። 1 2 3 4
10. ከሌሎች ሰዎች እርዳታ እና ምክር እያገኘሁ ነበር ። 1 2 3 4

11. አልኮልን አልያም ሌሎች አደንዛዥ እጾችን እንድወስድ ይረዱኝ ነበር :: 1 2 3 4
12. የበለጠ አዎንታዊ እንዲመስል ለማድረግ በተለየ ሁኔታ ለማየት ሞክራለሁ :: 1 2 3 4
13. እራሴን ተችቻለሁ. 1 2 3 4
14. ምን ማድረግ እንዳለብኝ ስትራቴጂ ለማምጣት እየሞከርኩ ነበር 1 2 3 4
15. ከአንድ ሰው መፅናናትን እና መረዳትን እያገኘሁ ነው :: 1 2 3 4
16. ለመቋቋም ሙከራውን እተወዋለሁ 1 2 3 4
17. በሚሆነው ነገር ውስጥ አንድ ጥሩ ነገር እፈልግ ነበር:: 1 2 3 4
18. እኔ በእሱ ላይ ቀልድ እየሠራሁ ነበር 1 2 3 4
19. ስለ ፈልገዎቻችሁ መሄድ ፣ ቴሌቪዥን ማየት ፣ ማንበብ ፣ ማለም ፣ መተኛት ወይም መገብደት ያሉ ነገሮችን ባነሰ ሁኔታ ለማሰብ አንድ ነገር እያደረግሁ ነበር 1 2 3 4
20. የተከሰተበትን እውነታ እየተቀበልኩ ነው :: 1 2 3 4
21. አፍራሽ ስሜቶቼን እየገለፅኩ ነበር 1 2 3 4
22. በሃይማኖት ወይም በመንፈሳዊ እምነቶቼ መፅናናትን ለማግኘት እየሞከርኩ ነበር 1 2 3 4
23. ምን እንደሆነ ከሌሎች ሰዎች ምክር ለማግኘት ወይም ለማገዝ እየሞከርኩ ነበር 1 2 3 4
24. አብሬው መኖርን ተምራለሁ 1 2 3 4
25. ምን እርምጃዎችን መውሰድ እንዳለብኝ በጥልቀት እያሰብኩ ነበር 1 2 3 4
26. ለተከሰቱ ነገሮች እራሴን እወቅሳለሁ 1 2 3 4
27. እየጸለይኩ ወይም እያሰላሰልኩ ነበር 1 2 3 4
28. በሁኔታው ላይ እየቀለድኩ ነበር :: 1 2 3 4

**ክፍል 5** ማህበራዊ ድጋፍን የሚመለከቱ መረጃዎች

ይህ ክፍል ከማህበራዊ ድጋፍ መረጃ ጋር የተዛመደ ሲሆን OSLO-3 ሶስት ነገሮችን ያቀፈ ሲሆን ማህበራዊ ድጋፍን ደረጃ ለመገምገም ይጠቅማል ::

1. ምን ያህል ሰዎች ለእርስዎ በጣም ቅርብ ስለሆኑ ታላቅ የግል ችግሮች ካሉዎት በእነሱ ላይ ሊተማመኑ ይችላሉ? 1. የለም 2) 1-2 3) 3-5 4) >5

2. ሰዎች በሚያደርጉት ነገር ምን ያህል ፍላጎት እና አሳቢነት ያሳያሉ? 1. የለም 2. ትንሽ 3. እርግጠኛ ያልሆነ አንዳንድ 4. ብዙ

4. ከፈለጉ ከጎረቤቶች ተግባራዊ እርዳታ ለማግኘት ምን ያህል ቀላል ነው? 1. በጣም ከባድ  
2. ከባድ 3. ይቻላል 4. ቀላል 5. በጣም ቀላል

**ክፍል 6:** ወደ COVID-19 ሚዛን የሚጠበቁ ባህሪዎች የተማሪዎችን የጥንቃቄ ባህሪዎች ለመለካት ያገለግላሉ። እባክዎን የአሳታፊውን ተሞክሮ የሚወክል አማራጭን ይክፈቱ።

1: በጭራሽ እንደ እኔ 2: እንደ እኔ አይደለም 3: እርግጠኛ አይደለም, 4: እንደ እኔ, 5: ልክ እንደ እኔ

1. ወረርሽኝ በሚከሰትበት ጊዜ እጆቼን በንጽህና እጠብቃለሁ ። 1 2 3 4 5

2. በ COVID-19 ወረርሽኝ ወዲያውኑ የተለያዩ ፖርቲዎችን እሰርዛለሁ ። 1 2 3 4 5

3. በ COVID-19 ወረርሽኝ ወዲያውኑ አለስፈላጊ የጉዞ ዕቅዶችን እሰርዛለሁ ። 1 2 3  
4 5

4. በወረርሽኝ ወቅት ማንኛውንም ዘመድ ወይም ዳደሻ አልጎበኝም ። 1 2 3 4 5

5. ወደ ውጭም ሆነ በአደባባይ በወጣሁ ቁጥር አፊን እና አፍንጫዬን እሸፍናለሁ ። 1 2 3  
4 5

6. ከ COVID-19 ወረርሽኝ አካባቢ ከሚገኝ ሰው ጋር ከተገናኘሁ እራሴን ማግለል አለብኝ ። 1 2 3  
4 5

7. አሁን ከ COVID-19 ወረርሽኝ አካባቢ የመጣው የቤተሰብ አባል ካለኝ ለጤና ባለሥልጣናት አሳውቃለሁ ። 1 2 3 4 5

8. የቤተሰቤ አባል ወይም ዳደሻዬ ከተከሰተበት አካባቢ ከተመለሱ በኋላ በጤና ሁኔታ ላይ ከሆኑ የመከላከያ እርምጃዎችን መውሰድ አያስፈልግም ። 1 2 3 4 5

9. በእኔ አስተያየት ያልተለመዱ ምልክቶች ከሌሉ የኪራንቲን አስቀድሞ ሊቋረጡ ይችላሉ 1 2  
3 4 5

10. አጠራጣሪ ምልክቶች ከታዩኝ ወዲያውኑ እራሴን ለብቻ ማድረግ አለብኝ ። 1 2 3  
4 5

11. ተጠራጣሪዎቼ አሁንም ቀላል እስከሆኑ ድረስ ያለ ሐኪም ሀኪም ያለ መድሃኒት መውሰድ እችላለሁ ። 1 2 3 4 5



12. አጠራጣሪ ምልክቶች ካሉኝ ወዲያውኑ ከሙያ ሐኪሞች የህክምና እርዳታ ለማግኘት መሞከር አለብኝ። 1 2 3 4 5

13. የሕክምና ታሪክን መደበኛ ለራሴ እና ለሌሎች ጥሩ አይደለም። 1 2 3 4 5

14. በቤት ውስጥ አጠራጣሪ ኢንፌክሽን ወይም የተረጋገጠ ጉዳይ ካለ በተቻለ ፍጥነት ለጤና ባለሥልጣኖች ማሳወቅ አለብኝ። 1 2 3 4 5

**ክፍል 7: COVID-19 የጥንቃቄ እርምጃዎች**

ጥያቄ

1. ቀጣይነት ያለው የህብረተሰብ ስርጭት ባሉባቸው አካባቢዎች በየትኛውም የህዝብ ብዛት በሚሰበሰቡበት ቦታ ይሳተፋሉ? 1. አዎ 2. አይ

2. በቅርብ ቀናት ውስጥ ከቤት ሲወጡ ጭምብል ለብሰዋል? 1. አዎ 2. አይ

3. አዎ ከሆነ ፣ ሲያወጡት ጭምብሉን ከፊት ለፊት ይንኩ? 1. አዎ 2. አይ

4. ጭምብልን እንደገና ይጠቀማሉ? 1. አዎ 2. አይ

5. ቢያንስ ለ 20 ሰዎች ያህል እጅዎን በሳሙና እና በውሃ በተደጋጋሚ ይታጠባሉ ወይም በንፅህና አጠባበቅ / 60% ሳኒቲሽን ይጠቀማሉ? 1. አዎ 2. አይ

6. ባልታጠበ እጅ ዓይኖቻዎን ፣ አፍንጫዎን እና አፍዎን በተደጋጋሚ ይዳስሳሉ? 1. አዎ 2. አይ

7. በተደጋጋሚ የሚነኩ ነገሮችን ወይም ንጣፎችን ያጸዳሉ እና በፀረ-ተባይ ያፀዳሉ? 1. አዎ 2. አይ

8. ሁል ጊዜ “አካላዊ ርቀትን” በ 2 ሜትር ርቀት ይለማመዳሉ? 1. አዎ 2. አይ

9. ሌሎች ሰራተኞችን በስልክ ፣ በዴስክ ጽ / ቤት ወይም በሌላ መሳሪያ ይጠቀማሉ? 1. አዎ 2. አይ

10. ግንኙነትን (ለምሳሌ እጅ መጨበበጥ) ይገድባሉ? 1. አዎ 2. አይ

11. በቡና ቤት እና ምግብ ቤት ውስጥ ትበላለህ ወይ ትጠጣለህ? 1. አዎ 2. አይ

12. በሳል ወይም በማስነጠስ ወቅት በክርን ወይም በጨርቅ በማስነጠስ ጊዜ አፍዎን እና አፍንጫዎን ይሸፍኑታል ፣ ከዚያም ህብረ ህዋሱን ወደ ቆሻሻው ይጥሉታል? 1. አዎ 2. አይ

13. በሚተላለፉበት ጊዜ በመስኮቱ ክፍት በሆነ ክፍል ውስጥ ቤት ውስጥ መቆየት ይመርጣሉ? 1. አዎ 2. አይ

14. በሚተላለፉበት ጊዜ በተለመደው ቀዝቃዛ መሰል በሽታ ምክንያት በሚታመሙበት ጊዜ በቤትዎ ይቆያሉ? 1. አዎ 2. አይ

15. የክልል የአካባቢዎ ባለሥልጣናትን መመሪያ ያዳምጣሉ እና ይከተላሉ? 1. አዎ 2. አይ

**DECLARATION**

**I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.**

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Name of the institution:** \_\_\_\_\_

**Date of submission:** \_\_\_\_\_

**This thesis has been submitted for examination with my approval as University advisor**

**Name and Signature of the first advisor:** \_\_\_\_\_

\_\_\_\_\_

**Name and Signature of the second advisor** \_\_\_\_\_

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