

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING AND MIDWIFERY

**PERCEIVED STRESS, DEPRESSION AND ASSOCIATED FACTORS
AMONG UNDERGRADUATE HEALTH SCIENCE STUDENTS AT
ARSI UNIVERSITY, 2019**

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ADDIS ABABA ETHIOPIA

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Study period	February 25- April 15/2019
Study area	Arsi university
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ABBREVIATIONS AND ACRIMONY

BDI	Beck Depression Inventory
CI	Confidence Interval
EME	Ethiopian Ministry of Education
OD	Odd Ratio
PSS	Perceived Stress Scale
RRC	Research Review Committee
SD	Standard deviation
SPSS	Statistical Package Of Social Science
WHO	World Health Organization

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SUMMARY

Background: A mental health problem is significant causes of overall disease burden globally. Among this depression is the predominant mental health problem that affects 350 million worldwide. Stress and depression are the central problem observed among university students due to the transitional nature to campus life. Consequently, the problem has adverse effect on the wellbeing and academic performance of student's.

Objective: To assess perceived stress, depression and associated factors among undergraduate health sciences students at Arsi University, 2019

Methods: An institutional based cross-sectional study design on under graduate health sciences students will be employed for the study from February 25- April 15/2019. Study population will be selected by using stratified random sampling technique and Data will be collected by using self-administered questionnaire of Perceived Stress Scale (PSS-14-) item and Beck depression inventory 21 items. Stratified random sampling method with proportionate allocation will be used to get the required sample size 274. Data will be entered by Epi info version 3.1and analyzed using SPSS software version 20. Frequencies, binary and logistic regression will be used to describe and analyze study variables.

Budget: Allocated total budget for the study is 25000.00Br.

Key terms: perceived stress, depression, under graduate health sciences students

1. INTRODUCTION

1.1 Back ground

Stress is our body's response to pressures from a situation or life event called a 'stressor' (1).

Academic stress is unpleasant feeling of tension and anticipated frustration secondary to academic related demands and expectation from significant others (2).

Depression is a common mental disorder characterized by depressed mood, loss of pleasure, decreased energy, feelings of guilt, low self-worth, disturbed sleep and poor concentration (3).

Mental health problems is significant causes of overall disease burden globally as it account for 21.2% years lived disability worldwide. According to the Global Burden of Disease study, the predominant mental health problem worldwide was depression. Today, depression is estimated to affect 350 million people (4). Report from World Mental Health Survey conducted in 17 countries showed that on average 1 in 20 people has an episode of depression symptoms like depressed mood, loss of interest and enjoyment, and increased fatigability in the previous year in which A depressive episode is categorized as mild, moderate, or severe based on the number and severity of symptoms (5).

Over half of adults (51%) who felt stressed reported feeling depressed. Among those, 16% had self-harmed and 32% had suicidal thoughts and feelings (6).

Nursing students are prone to stress due to the transitional nature to campus life. The main contributing factor of perceived stress was intrapersonal factors such as high self expectation, new responsibility of life, lack of friend, financial problem, change in eating pattern while interpersonal stressor like high parental expectation, poor interpersonal relationship were the following one. In addition to this environmental factors like poor dormitory facility and change in living environment, were also stated as associated factors of stress (7)

Evidence demonstrated that academic stress decreases student's academic performance hinders ability to study efficiently and better time management. Academic stress is higher among juniors' than seniors; as juniors' students are less experienced, have low maturity level and are more victimized by academic stress of university as compared to the seniors who are not only mature and experienced but are also well adapted and well-adjusted to academic stress (8).

This highlights the need for research to assess perceived stress, depression and associated factors among undergraduate health sciences students at Arsi University.

1.2 Statement of the problem

Mental health problems are a growing public health concern. According to world health organization (WHO) report in 2011, untreated mental health problems account for 13% of the total global burden of disease. By 2030, it is projected that mental health problems (particularly depression) will be the leading cause of mortality and morbidity globally. Recently , depression is estimated to affect 350 million people worldwide (4).

Mental illness among university student will have numerous impacts on individual, family, and community as undiagnosed or untreated mentally ill students are at high risk of dropouts from academic program , loss of interest in studies, depression, raising unemployment rate that leading to extra burden on the families , society and community as whole (9).

Findings of Pondicherry University Indian revealed that 9.8% students were suffering from high academic stress while 67.8% were victims of moderate academic stress. A sense of financial insecurity and low social support was considered for high academic stress among the students coming from lower socio-economic background. Students' negative perceptions about university academic environment and living arrangements were associated with depression. In addition to this the students who felt academically stressed were significantly suffering from more depression (10) .

Evidence demonstrated at different universities of Islamabad, revealed that academic stress decreases student's academic performance hinders ability to study efficiently and better time management. Academic stress is higher among juniors' than seniors; as juniors' students are less experienced, have low maturity level and are more victimized by academic stress of university as compared to the seniors who are not only mature and experienced but are also well adapted and well- adjusted to academic stress(8).

Conducted survey brought that, health science streamed students had more stress compared to students studying in other streams mainly due to increased class workload and examinations. Students' experiences high levels of stress have difficulty to learn, memorize, and earn good grades as well as lead to poor physical, emotional, and mental health (11).

Presence and severity depressive symptoms among health professions' students at public university in Riyadh, Saudi Arabia were significantly associated with female gender and the study year of participants(12).

Finding from public university of Srilanka among nursing students showed that an alarming increase for risk of mental health morbidity since study participants claimed mild to extremely severe symptoms of depression (51.1%), and stress (82.6%) (13).

Result of public university of Ghana among midwife and nursing students brought that there is high level of stress experienced by student due Academic and intrapersonal stressor (14).

Mental health problems particularly stress and depression are the central problem observed among university students. Consequently mental health problems have adverse effect on the wellbeing and academic performance of student's if not identified early and managed effectively. In addition to this there is a Limited coping method, awareness about counseling and guidance service and negligible utilization of these services in the campus to decrease risk and improve student psychological wellbeing(7). Despite this fact few studies address mental health issues among health sciences students in higher institutions of Ethiopia. Therefore, the aim of this study is to assess the perceived stress level, depression and associated factors among health science students at Arsi University.

1.3 Justification

Higher education is considered as a challenging time in students' life since they are facing a variety of demands like difficulties in adjusting to the university culture and context, socioeconomic challenges, poor interpersonal relationships, intrapersonal problems, a heavily loaded curriculum and limited institutional support. As result University students are highly vulnerable for stress and depression that leads them to poor performance, drop out of school, absenteeism and decreased productivity thereby it might affect their future carrier.. Therefore assessing the current stress, depression and associated factors among university students at this moment is therefore highly important to recognize and take measures as early as possible.

1.4. Significance of the study

Universities should well position to promote mental health among young people because they encompass several important aspects of students' academic life, health services, residences, social networks and extracurricular activities. Therefore, conducting this research to obtain evidence-based and realist information on assessment of perceived stress, depression and associated factors need to launch on an intervention program appears to be timely agenda on the table. As it will enhances adequate adaptation, achieving expected performance, timely addressing of mental health problems as they arise and minimizes dropouts to the possible minimum in order that student retention and overall cognitive development are enhanced and there by helps to produce skilled man power in the field.

Up to my knowledge, no researches were done in this respect in Ethiopia, so this study will be conducted to add to a body of knowledge gap to consider correction measures to address problems.

Therefore universities will utilize the results of this study to form a basis for proper information and training during university open days before students join the higher institutions of learning. The results of study also helpful for related research as it will use as input. Furthermore; this study helps local health planners, policy makers and organizations working on mental health program for effective planning and implementation of program.

2. LITERATURE REVIEW

2.1 Prevalence of stress and associated factors

Finding from Malaysian University showed that the health sciences students experienced moderate to high level of stress in which stressors were related to academic and social relationship (15).

Study at Malaysian universities among pharmacy students identify those stressor such as exams and grades, fear of future, financial problems, and peer competition were significantly correlated with students' perceived stress(16).

Result of other Study at Malaya University show that there is a high perceived stress level among undergraduate pharmacy students. The most frequently reported source of stress was related to academic followed by personal life issues, financial issues and environmental factors however 2.2% of respondents have reported residential and politics as sources of stress.(17)

Study conducted at Tarnow, Southern Poland revealed that more than half of nursing students were presented with moderate and high perceived stress during their clinical practice. The difficult situations such as discrepancy between theory and practice, insufficient number of performed nursing procedures, and inability to master a technique or already gained skills and interpersonal relations with the patient, their family, and medical personnel were considered as major stressors (18).

Other study finding showed that Stress levels of Turkish nursing students in clinical practice were high. Perceived academic stress were from lack of professional knowledge and skills, stress experienced while providing patient care , stress from assignments and workload, stress caused by instructors and nursing staff and stress from the environment (19) .

Similarly Study at Tanta university of Egypt explored that Senior nursing students' experienced a high level of stress in clinical practice, in which perception of learning environment and their responses to stress were positively correlated. Assignment & work load, teachers and nursing staff were common stressors (20) .

Result of study at University of Baghdad among Undergraduate nursing students indicated that there was moderate level of stress related to different stressor. The prominent associated factors of stress among the students were; environmental related factors, intra and inter personal related factors (21).

Result of study from different universities in Islamabad pointed out that there was no significant difference between male and female university students on scores on the Perceived Stress Scale (PSS) (8).

The survey conducted at pharmacy school in Ghana implies as the majority of participants was stressful. In which academic curriculum load, laboratory report writing, constant pressure to maintain good grades, the lack of leisure time and poor quality of teaching were perceived stressors. Among this 67.3% of the students recognized that stress affected their academic performance (22).

Finding from Makerere University showed that prevalence of stress among health professional students were more than half and stressors of academic and psychosocial origin such as academic curriculum, dissatisfaction with class lectures, lack of time for recreation, performance in examination, high parental expectations and financial problems were considered as major one (23).

Study conducted among health sciences students at Debrebran University explored that prevalence of perceived stress level among health science students were 63.7%. In which Gender, monthly income, social support, study year and relationship with class mates and dorm mates was associated factors among study participants (24).

The prevalence of stress among Debre Birhan governmental regular health science college participants is 3.6% in which sex, environment, presence of disease, and fear of exam were significantly associated with the stress level (25).

2.2 Prevalence of Depression and associated factors

Study among nurse at Sri Lanka University indicated that half of the study participants had a normal level of depressive symptoms while 16.3% and 15.2% of the respondents presented severe and extremely severe depressive symptoms, respectively. The associated factors with depression were academic year of the students, satisfaction with the nursing program and physical well-being factors (13).

Research done at Shahid Beheshti University revealed that 20.6% of the students suffered from mild to moderate depression, while 9.9% of the students suffered from moderate to severe depression. Dissatisfaction with study of field, future career prospects, financial problems, satisfaction with relationships between family members, friends and classmates were associated factors (26).

Findings of current survey, among students in, Faculty of Health Science at Monash University revealed the absence of statistically significant association between depression and students field of the study, gender and year of study (27).

Another Result of Survey at Plovdiv Medical University, pointed out that gender and year of study were not statistical significant with students depression (28).

Prevalence of depression among health science students at University Tunku Abdul Rahman was 43.3%. Intense pressure during the formative assessment, illness and death a family member, being fresh man and gender were considered as strong predisposing factors among the students (29).

Finding of study among Jordanian nursing students indicate as More than one-quarter (26%) of nursing students were presented with depression in which religious factors, family decision, and no other career opportunities were associated with depression (30).

Study of King Saud University indicates an alarming rate of depressive symptoms among health professional students were 44.2 %. The gender of the student was found to be the main factor that is associated with depressive symptoms in which female students have a higher prevalence of depressive symptoms (12).

Study result of university students in Nigeria showed that moderate to severe depression was found among students in which lack of social support, sleeping problem and poor academic performance were associated with depression(31).

2.3 Conceptual frame work

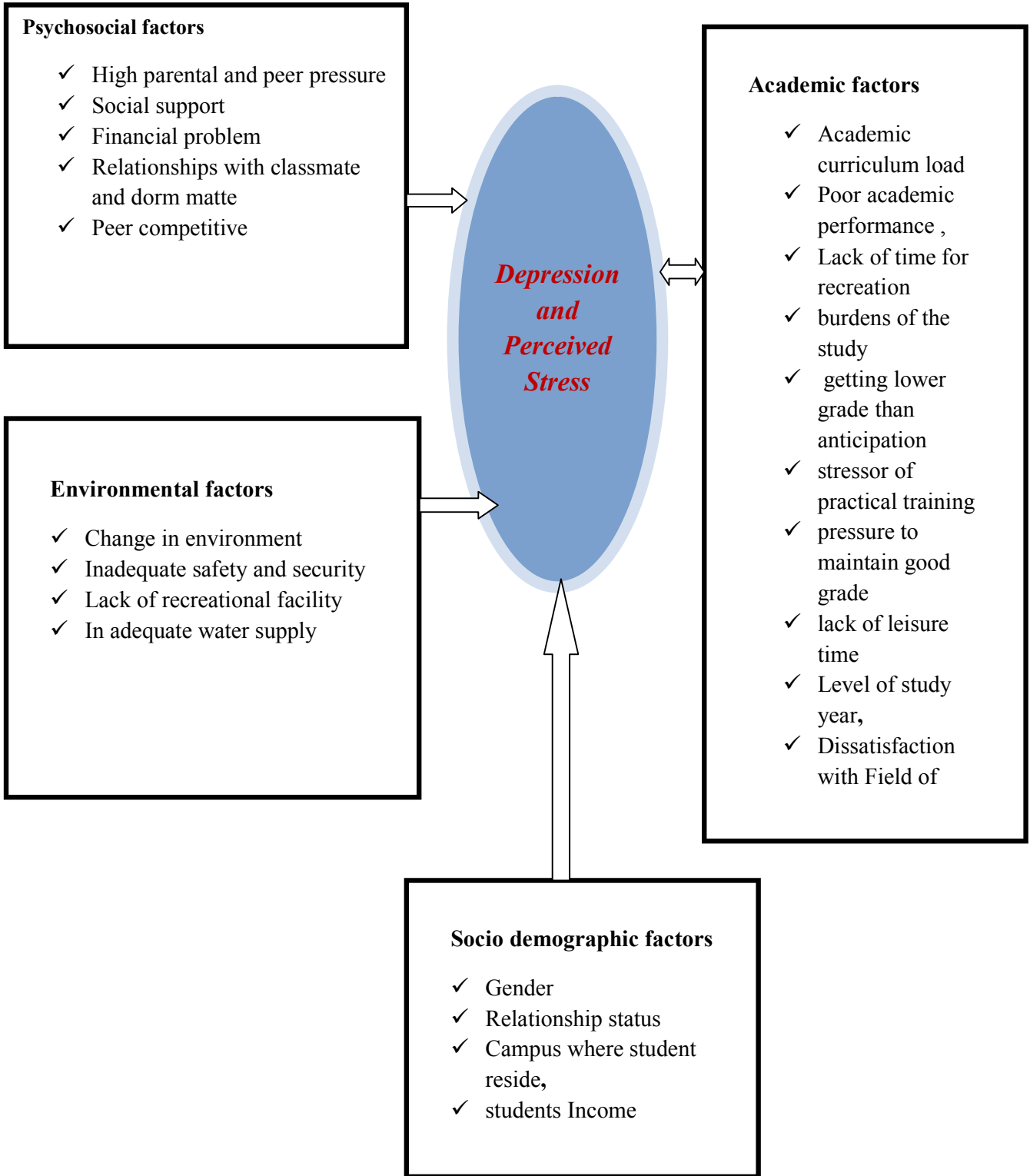


Figure 1: Conceptual framework of perceived stress and depression among health science students at Arsi University

3. OBJECTIVES OF THE STUDY

3.1 General objective

To assess perceived stress, depression and associated factors among undergraduate health sciences students at Arsi University, 2019

3.2 Specific objectives

- I. To determine level of perceived stress among undergraduate health sciences students at ARSI University, 2019.
- II. To identify possible associated factors of perceived stress among undergraduate health sciences students at Arsi University, 2019.
- III. To assess magnitude of depression among undergraduate health sciences at Arsi university, 2019
- IV. To identify associated factors of depression among undergraduate health sciences students at ARSI University, 2019.

4. METHODS

4.1 Study area and period

The study will be conducted among undergraduate health sciences students in Arsi University from February 25 to April 15. Arsi University is located in western Arsi zone Oromia regional state at distance of 159 km away from Addis Ababa. The University is among 3rd generation universities, those newly started education as university in 2006 E.C by the Ethiopian ministry of education (EME). Currently 41 regular under graduates departments are offering studies at six colleges and one school. The total regular students' population of this year is 5076. Among this 2996 and 2080 are male and females respectively.

4.2 Study design

An Institutional cross-sectional study design will be employed

4.3 Population

4.3.1 Source population

All undergraduate health sciences students registered in 20018/2019 academic year at Arsi University.

4.3.2 Study population

A sampled of student from selected department who attended in a regular program during data collection period.

4.3.3 Inclusion: Regular undergraduate health science students who registered from first to fourth year and attend their classes during the study period at Arsi University.

4.3.4 Exclusion: Students who are sick and absent during date of data collection.

4.4 Sample size determination and sampling procedure

The sample size will be determined by using a single population proportion formula with assumptions of; standard normal distribution with confidence interval (CI) of 95% ($Z=1.96$), absolute precision or tolerable margin of error ($d=0.05$), prevalence of perceived stress among health sciences students at Debra Berhan university (63.7%) and considering anticipated proportion of students who experience depression =50 % (P) since there was no similar study with this respect before .Then I calculate sample size for each dependant variable and took maximum sample size.

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

$$n = (1.96)^2 \times 0.5(0.5) / (0.05)^2$$

$$n=384$$

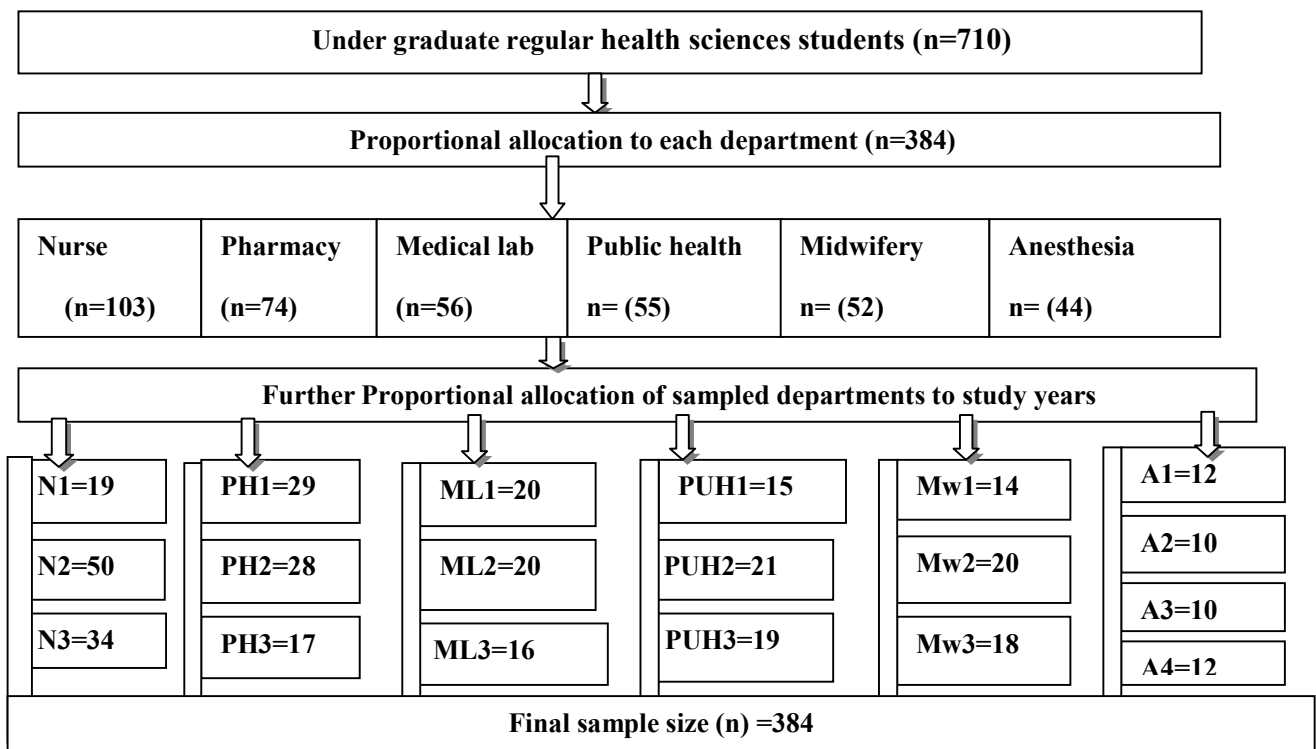


Figure 2: sampling procedure of the study

Key: N1, N2, N3; stands for first, second and third year nursing students respectively.

PH1; PH2 and PH3; stands for first, second and third year pharmacy students respectively

ML1, ML2, and ML3; stands for first second and third year medical laboratory students respectively

PUH1, PUH2 and PUH3; stands for first, second and third year public health students respectively

MW1, MW2, and MW3 stands for first, second and third year midwifery students respectively

A1, A2, A3 and A4; stands for first, second, third and fourth year anesthesia students respectively

4.4.1 Sampling technique

Stratified random sampling method will be used to get the required sample size in which Strata will be based on department of study. Number of study subjects in each stratum will be determined by proportion to population size from each department. Then study subject will be further selected by simple random sampling.

4.4.2 Method of data collection

Data will be collected by using self-administered questionnaire of Perceived Stress Scale (PSS-14-) item and Beck depression inventory 21 items. Perceived Stress is a measure of the degree in a person assesses their life as the stressfulness of the situations in the past month of their lives. The scale yielded a single score with high scores indicating higher levels of stress and lower levels indicating lower levels of stress. The BDI is scored by summing the ratings for the 21 items. Each item is rated on a 4-point scale ranging

from 0-3 the maximum total score is 63. The questionnaires will have four sections that contain socio-demographic data, perceived stress level, Beck Depression Inventory items & questions to assess factors associated to stress & depression. Two instructors will collect data from study participants during data collection period.

4.5 Operational Definitions

Moderate depression: individual scores 21-30 on Beck Depression Inventory scale of 21 items

Severe depression: individual scores 31-40 on Beck Depression Inventory scale of 21 items

Extreme depression: individual scores more than 40 on Beck Depression Inventory scales of 21 items

Perceived stress levels; an individual's perceived response to interaction with his or her environment as measured by the Perceived Stress Scale.

Low perceived stress: Individual scores range from 0-13 on the PSS Scores

Moderate perceived stress: - Individual scores range from 14-26 on the PSS scores

High perceived stress: - Individual scores on the PSS Scores ranging from 27-40

Health sciences students: - in this study it refers to nursing, midwifery, public health officer, pharmacy, medical laboratory and anesthesia.

4.6 Study Variables

4.6.1 Independent variables

Socio-demographic variables: Age, Sex, Religion, Ethnicity, Relationship status, Campus where student reside, and Income.

Academic variables: Academic curriculum load, burdens of the study, Poor academic performance, Lack of time for recreation, stressor of practical training, Level of study year, Satisfaction with Field of study, future career prospect, available career options, Cumulative GPA and Adjustment to university classes.

Psychosocial variables: Social support, Relationship with dorm mates or class mates, High parental and peer pressure, financial problem and Peer competitive

Environmental factors; Change in environment, inadequate safety and security, Lack of recreational facility, inadequate water

4.6.2 Dependent variable: Depression and Perceived stress level

4.7 Data quality assurance

Before the actual data collection, pre test on 5% of the total sample size will be carried out using a self-administered questionnaire on medical sciences students within main study area to ensure that the respondents are able to understand the questions and to check the wording, logic and skip order of the questions in a sensible way to the respondents. Amendments will be made accordingly after pre-testing. Five instructors who will participate on the data collection will take training on data collection. In addition to this closer supervision will be undertaken during data collection and each questionnaire will be checked for completeness by the principal investigator on a daily basis.

4.8 Data processing and analysis

After collection of data, each questionnaire will be checked for completeness and codes will be given before data entry. Then data will be entered into Epi Data version 3.1 and imported to Statistical package for social sciences (SPSS) version 20 software package for data analysis. Descriptive statistics will be done to identify the distribution of socio-demographic, department of study and study year characteristics of the study participants. Different frequency tables, graphs and descriptive summaries will be used to describe the study variables. Bivariate and multivariate logistic regression and odds ratio (OR) with 95% confidence interval will be used to identify the associated factors with dependent variables. Variables with p -value < 0.05 will be used as the cut-off point and independent variables with p -value < 0.05 in bivariate logistic analysis will be fitted in to multivariate logistic regression to identify independently associated factors of outcome variables. Independent variables with P -value ≤ 0.05 with dependent variable will be considered as statistically significant. Finally, findings of the study will be presented on tables, figures and graphs.

4.9 Ethical considerations

Ethical issues will be approved by the Addis Ababa research review committee (RRC). After approval for ethical clearance, communication will be made with Arsi University using the joint letter taken from Addis Ababa University before data collection. Prior to administering the questionnaire, the objectives of the study will be clearly explained to the participants and oral informed consent will be obtained. Participants will be informed that their participation will be voluntary and that they could withdraw from the study at any time if they wished to do so and that this would not affect any service or benefit that they will get from any institution. All the information given by the respondents has been used for research purposes only, and confidentiality will be maintained by omitting the names of the respondents.

4.10 Dissemination of results

The findings of this study will be presented to Department of Nursing and midwifery and then it will be disseminated to Addis Ababa University. In addition to this it will be disseminated to Arsi University where the study will be conducted, through soft and hard copy after presenting it. Finally possible effort will be attempted to publish in a local and international journal for wider dissemination of the result.

5. WORK PLAN

Table 1: GANNT chart showing the work plan of the study

S. No	Activities	Responsible person	Time Period, 2019							
			November	December	January	February	April	March	May	June
1.	Topic selection	PI								
2.	Topic defense	PI								
3.	Proposal writing	PI & Advisor								
4.	Submission of proposal final draft	PI								
5.	Proposal defense	PI								
6.	Correcting comment and submit, obtaining ethical clearance	PI								
7.	Data collection	PI, DC & SP								
8.	Complete data and Thesis report writing	PI & Advisors								
9.	Final draft thesis Submission to advisor	PI								
10.	Submission of first final paper	PI								
11.	Mock defense	PI								
12.	Final draft thesis submission to post graduate coordination unit	PI								
13.	Final thesis defense									

Key; PI: principal investigator, DC: data collector and SP: supervisor

6. Budget break down

Table 2: Budget break down of the study

S.No	Description	Unit	Quantity	Unit cost (ETB)	Total cost (ETB)
I	Personnel cost				
1	Supervisor	Person	1* 22 days	200	4400.00
2.	Data collectors	Person	2*22	200	8800.00
Sub total					13,200.00
II	Equipment and other supplies				
1	Questionnaire printing & Duplication	Per page	10	2*10*384	7680.00
3	Mobile card	pieces	12	50	600.00
4	Pen (Lexy)	Number	12	4	48.00
5	Pencil	Number	6	2	12.00
6	Marker	Number	12	15	180.00
7	Note book	Number	2	50	100.00
8	CD-ROM	Number	2	25	50
9	Printing cost for proposal and Thesis	Per page	450	5.00	850.00
11	Duplication of thesis copy	Per page	1	500	500.00
12	C4 paper	Pack	1	300	180.00
Subtotal					10200.00
III	Transportation & Communication costs				
1	Transport cost for data collection	Days	Trips	4	1600.00
Subtotal					1600.00

Budget summary

Type of costs	Total cost (ETB)
Personnel	13200.00
Equipments and other supplies	10200.00
Transportation & Communication costs	1600.00
Grand total	25,000.00

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8. ANNEX

ANNEX I: INFORMATION SHEET

Title of Research: Assessment of perceived stress, depression and associated factors among undergraduate health sciences students at Arsi University, 2019

Name of Investigator: Deressa Worku(BSC)

Name of the Organization: Arsi University

Name of the Sponsor: Addis Ababa University

Introduction: This information sheet is prepared for Arsi University to make the concerned office clear about the purpose of research, data collection procedures and to get permission to conduct the research.

Purpose of the Research Project: To assess perceived stress, depression and associated factors among undergraduate health sciences students at Arsi University, 2019

Procedure: In order to achieve the above objective, information which is necessary for the study will be taken from under graduate health sciences students.

Risk and /or Discomfort: Since the study will be conducted by taking appropriate information, it will not inflict any harm on the students. The name or any other identifying information will not be recorded on the questionnaire and all information taken from the chart will be kept strictly confidential and in a safe place. The information retrieved will only be used for the study purpose.

Benefits: The research have no direct benefit for one whose document/ record in this research. But the indirect benefit of the research for the participant is clear. This is because if program planners are preparing predicted plan there is a benefit for participants in the program of getting appropriate care and treatment services. Of all, the research work has a paramount direct benefit for health care planners and managers, especially for those on mental health collaborative program planning and management.

Confidentiality: To reassure confidentiality the data on the chart will be collected by those individuals who are working in university and information will be collected without the name of the students. The information collected from this research project will be kept confidential and will be stored in a file. In addition, it will not be revealed to anyone except the investigator and it will be kept in key and locked system with computer password.

Person to contact: This research project will be reviewed and approved by the institutional review board of College of Health Science, Addis Ababa University. If you want to know more information, you can contact the committee through the address below. If you have any question you can contact any of the following individuals (Investigator and Advisors) and you may ask at any time you want.

1. Deressa Worku, AAU University , College of Health Science, Department of Adult health Nursing: principal investigator.

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2. Berhanu Wordofa (assistant professor) , AAU University , College of Health Science, department School of Nursing and midwifery: Main-Advisor

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3. Abdisa boka (BSc, MSc) AAU University ,College of Health sciences , School of Nursing and midwifery: Co- Advisor

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ANNEX II: INFORMED CONSENT SHEET.

Good morning/afternoon, my name is _____ and I am a data collector. The principal investigator is a student in Addis Ababa university for partial fulfillment of degree of masters in Adult health Nursing.

Currently we are conducting a study on perceived stress, depression and associated factors among undergraduate health sciences students at Arsi university .I believe that the study findings will help to improve health of the stressed and depressed individual. If you participate in the study, it will not take more than 15-30 minutes. The information that you give using this questionnaire used only for research purpose and all information you provide to me will be strictly confidential. The study has no risk to you and your family members but mild time consuming. Therefore I politely request your cooperation to respond at all or to withdraw in the meantime, but your input has great value for the success of my objective. Do you agree? Now please tell me if you agree to participate in the filling of the questionnaire.

Yes continue

No good bye

Thank you for your cooperation!!

Data collector name _____ signature _____ Date _____ month _____ year _____

Supervisor name _____ signature _____ Date _____ month _____ year _____

ANNEX III: ENGLISH VERSION QUESTIONNAIRE

Instructions: This format contains a total of 84 questions, which are pertinent to the research objectives. You are kindly requested to answer all as complete as possible and carefully by filling the blank spaces and encircling one appropriate choice from the alternatives given.

IDENTIFICATION

1. Id number of the subject: ----- Date-----

A. SOCIO-DEMOGRAPHIC CHARACTERS

101	How old are you?	Age in completed years _____
102	Sex	1. Male 2. Female
103	What is your current marital status?	1. Single/never married- 2. Married 3. Divorced 4. Widowed
104	Your Monthly income in birr	_____
105	What is your field of study?	1. Nursing 2. Pharmacy 3. Public health officer 4. Midwifery 5. Medical laboratory 6. Anesthesia
106	What is your Educational study year level?	1. 1 st Year 2. 2 nd Year 3. 3 rd Year 4. 4 th Year
107	Are you satisfied with your field of study?	1. Yes 2. no
108	What is your religion?	1. Muslim 2. Orthodox 3. Catholic 4. Protestant 5. Others (Specify) _____

B. STRESS LEVEL SCREENING QUESTIONNAIRE

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling how often you felt or thought a certain way. For each question choose from the following alternatives:

0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

S.NO	Statement	0	1	2	3	4
201	In the last month, how often have you been upset because of something that happened unexpectedly?					
202	In the last month, how often have you felt that you were unable to control important things in your life?					
203	In the last month, how often have you felt nervous and “stressed”?					
204	In the last month, how often have you dealt successfully with irritating life hassles?					
205	In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?					
206	In the last month, how often have you felt confident about your ability to handle your personal problems?					
207	In the last month, how often have you felt that things were going your way?					
208	In the last month, how often have you found that you could not cope with all the					

	things that you had to do?					
209	In the last month, how often have you been able to control irritations in your life?					
210	In the last month, how often have you felt that you were on top of things?					
211	In the last month, how often have you been angered because of things that happened that been outside of your control?					
212	In the last month, how often have you found yourself thinking about things that you have to accomplish?					
213	In the last month, how often have you been able to control the way you spend your time?					
214	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?					

C. STRESSOR SCREENING QUESTIONNAIRE

This questionnaire consists of 32 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during **the last months**. Tick the number beside the statement you have picked. Be sure that you do not choose more than one statement for any group.

1. Yes 2.No

S.NO	Statement	1	2
301	Is that Competition with peers' causes you to be stressed?		
302	Is that large volume (academic curriculum load) to be studied causes to you being stressed?		
303	Is that unrealistic expectation of from parent's cause you to be stressed?		
304	Is that lack of leisure time causes you to be stressed?		
305	Is that assignment and work load causes you to be stressed?		
306	Is that burden of the poor academic performance causes you to be stressed?		
307	Is that burden of the study causes you to be stressed?		
308	Is that performance in examination causes you to be stressed?		
309	Is that getting lower grade than anticipated causes you to be stressed?		
310	Is that pressure to maintain good grade causes you to be stressed?		

311	Is that laboratory report writing causes you to be stressed?		
312	Does that fear about future causes you to be stressed?		
313	Is that dissatisfaction with field of study causes you to be stressed?		
314	Is that year of the study causes you to be stressed?		
315	Is that the practical attachment causes you to be stressed?		
316	Is that lack of professional knowledge & skill causes you to be stressed?		
317	Is that discrepancy between theory and practice causes you to be stressed?		
318	Is that inability to master a technique or already gained skills causes you to be stressed?		
319	Do you feel stress during providing patient care?		
320	Is that instructors and clinical staff during practice causes you to be stressed?		
321	Is that interpersonal relation with the patient, their family, and medical personnel cause you to be stressed?		
322	Is that changing in environment causes you to be stressed?		
323	Is that inadequate safety and insecurity at dormitory causes you to be stressed?		
324	Is that lack of recreational facility in the university causes you to be		

	stressed?		
325	Is that lack of adequate water provision at university causes you to be stressed?		
326	Is that perception of teaching environment causes you to be stressed?		
327	Is that walking long distance for class causes you to be stressed?		
328	Is change in sleep pattern causes you to be stressed?		
329	Is feeling home sick causes you to be stressed?		
330	Is poor relationship with classmate and dorm mate causes you to be stressed?		
331	Is a financial problems cause you to be stressed?		
332	Is lack of social support causes you to be stressed?		

D. DEPRESSION LEVEL ASSESMENT QUESTIONNARY

The questions are a 21-item self-report instrument for measuring the severity of depression with four response options ranging from 0 to 3 for each item. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

401.	0	I do not feel sad
	1	I feel sad
	2	I am sad all the time and I can't snap out of it
	3	I am so sad and unhappy that I can't stand it
402.	0	I am not particularly discouraged about the future
	1	I feel discouraged about the future
	2	I feel I have nothing to look forward to
	3	I feel the future is hopeless and that things cannot improve
403.	0	I do not feel like a failure
	1	I feel I have failed more than the average person
	2	As I look back on my life, all I can see is a lot of failures
	3	I feel I am a complete failure as a person
404.	0	I get as much satisfaction out of things as I used to
	1	I don't enjoy things the way I used to
	2	I don't get real satisfaction out of anything anymore
	3	I am dissatisfied or bored with everything
405.	0	I don't feel particularly guilty
	1	I feel guilty a good part of the time
	2	I feel quite guilty most of the time
	3	I feel guilty all of the time
406.	0	I don't feel I am being punished
	1	I feel I may be punished
	2	I expect to be punished
	3	I feel I am being punished
407.	0	I don't feel disappointed in myself
	1	I am disappointed in myself
	2	I am disgusted with myself
	3	I hate myself
408.	0	I don't feel I am any worse than anybody else
	1	I am critical of myself for my weaknesses or mistakes
	2	I blame myself all the time for my faults
	3	I blame myself for everything bad that happens
409.	0	I don't have any thoughts of killing myself
	1	I have thoughts of killing myself, but I would not carry them out
	2	I would like to kill myself

	3	I would kill myself if I had the chance
410.	0	I don't cry any more than usual
	1	I cry more now than I used to
	2	I cry all the time now
	3	I used to be able to cry, but now I can't cry even though I want to
411.	0	I am no more irritated by things than I ever was
	1	I am slightly more irritated now than usual
	2	I am quite annoyed or irritated a good deal of the time
	3	I feel irritated all the time
412.	0	I have not lost interest in other people
	1	I am less interested in other people than I used to be
	2	I have lost most of my interest in other people
	3	I have lost all of my interest in other people
413.	0	I make decisions about as well as I ever could
	1	I put off making decisions more than I used to
	2	I have greater difficulty in making decisions more than I used to
	3	I can't make decisions at all anymore
414.	0	I don't feel that I look any worse than I used to
	1	I am worried that I am looking old or unattractive
	2	I feel there are permanent changes in my appearance that make me look unattractive
	3	I believe that I look ugly
415.	0	I can work about as well as before
	1	It takes an extra effort to get started at doing something
	2	I have to push myself very hard to do anything
	3	I can't do any work at all
416.	0	I can sleep as well as usual
	1	I don't sleep as well as I used to
	2	I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
	3	I wake up several hours earlier than I used to and cannot get back to sleep.
417.	0	I don't get more tired than usual
	1	I get tired more easily than I used to
	2	I get tired from doing almost anything
	3	I am too tired to do anything
418.	0	My appetite is no worse than usual
	1	My appetite is not as good as it used to be
	2	My appetite is much worse now

	3	I have no appetite at all anymore
419.	0	I haven't lost much weight, if any, lately
	1	I have lost more than five pounds
	2	I have lost more than ten pounds
	3	I have lost more than fifteen pounds
420.	0	I am no more worried about my health than usual
	1	I am worried about physical problems like aches, pains, upset stomach, or constipation
	2	I am very worried about physical problems and it's hard to think of much else
	3	I am so worried about my physical problems that I cannot think of anything else
421.	0	I have not noticed any recent change in my interest in sex
	1	I am less interested in sex than I used to be
	2	I have almost no interest in sex
	3	I have lost interest in sex completely

E.DEPRESSION ASSOCIATED FACTORS QUESTIONNARY

This questionnaire consists of 9 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling. Tick the number beside the statement you have picked. Be sure that you do not choose more than one statement for any group

1. Yes 2.No

S.NO	Statement	1	2
501	Is that poor academic performance causes you to be depressed?		
502	Is that dissatisfaction with field of study causes you to be depressed?		
503	Is that academic year causes you to be depressed?		
504	Is that unavailability of career options causes you to be depressed?		
505	Is that thinking about future career prospects causes you to be depressed?		
506	Is that sleeping problem causes you to be depressed?		
507	Is that lack of social support causes you to be depressed?		
508	Is that financial problem causes you to be depressed?		
509	Is that relationship problem with friends, classmates and family member's causes you to be depressed?		

PLEASE HONESTLY WRITE YOUR LAST YEAR CGPA: _____

THANK YOU FOR YOUR COOPERATION

