

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

**MORAL DISTRESS AND ASSOCIATED FACTORS AMONG
NURSES WORKING IN WEST ARSI ZONE PUBLIC
HOSPITALS, ETHIOPIA, 2023**

PRINCIPAL INVESTIGATOR: LEMMA DESALEGN (BSc)

**A THESIS SUBMITTED TO NURSING DEPARTMENT,
SCHOOL OF NURSING AND MIDWIFERY, COLLAGE OF
HEALTH SCIENCE, ADDIS ABABA UNIVERSITY IN
PARTIAL FULFILLMENT OF REQUIREMENT FOR THE
DEGREE OF MASTERS IN ADULT HEALTH NURSING**

MAY 2023

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APPROVAL SHEET

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ABBREVIATIONS /ACRONYMS

AAU.....	Addis Ababa University
ANA.....	American Nursing Association
CAN.....	Canadian Nursing Association
CI.....	Confidence-Interval
Epi Info.....	Epidemiological Information
IRC.....	Institutional Ethical Review Committee
KM.....	Kilometre
MD.....	Moral Distress
MDS-R.....	Moral Distress Revised Scale
OR.....	Odds Ratio
SD.....	Standard Deviation
SPSS.....	Statistical Package for Social Science
UK.....	United Kingdom
USA.....	United States of America

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ABSTRACT

Background: Healthcare personnel, particularly nurses, are at a significant risk of developing and experiencing moral distress globally. African nurses' moral suffering has not been the subject of many research. Existing publications mostly focused on qualitative studies. Furthermore, data on the prevalence and associated variables of moral distress among Ethiopian nurses and across all working units in public hospitals is scarce.

Objective: The aim of this study was to assess the level and associated factors of moral distress among nurses working in the West Arsi zone, south-east Ethiopia, in 2023.

Methods: An institutional-based cross-sectional study was carried out from February 13 to March 2, 2023. A total of 349 study participants were selected by a simple random sampling method. Data was collected using a structured self-administered questionnaire, entered into EpiData 3.1, and exported to SPSS V.26 statistical software for further analysis. Descriptive statistics and logistic regression analysis were performed. Then, finally, statistical significance was determined using a p value < 0.05 and 95% CI.

Results: A total of 349 participants were enrolled in this study, with a response rate of 98.5%. The mean (SD) age of the participants was 39.2 ± 7.0 . Among all of the participants, 194 (55.6%) were female. The majority of the nurses, 293 (84.0%), hold a bachelor's degree in the nursing profession. The mean year of experience was 7.7 ± 6.9 . The proportion of high moral distress among nurses was 73.1%. Being female nurse [AOR: 0.457, 95% CI (0.283, 0.740)], job dissatisfaction [AOR=7.67, 95% CI: 3.075, 19.121], and unfavourable working environment [AOR=4.069, 95% CI: 1.915, 8.648] were significantly associated with high level of moral distress.

Conclusion and recommendation: According to this study, the proportion of nurses experiencing moral distress was high. Female nurses, job dissatisfaction, and unfavourable working environment were shows significant association with high level of moral distress. More qualitative research is needed to identify the fundamental cause of the problem and its relationship to female nurses, job dissatisfaction, and unfavourable working environment.

Keywords: moral distress, ethical conflict, MDS-R, nurse, Ethiopia

1. INTRODUCTION

1.1. Background

Moral distress can be characterised as the psychological disequilibrium, unpleasant feeling state, and pain experienced by nurses who make a moral decision and then either do not or believe they are unable to carry out the selected action due to institutional restraints (1). Jameton defined moral distress (MD) as "when one knows the right thing to do, but internal and institutional constraints make it practically impossible to pursue the proper path of action" (2). Following that, MD obtained growing attention in nursing research, which was primarily conducted in North America but is now spreading to South America, Europe, the Middle East, and Asia (1).

According to the American Association of Critical Care Nurses, MD happens when a person is aware of the ethically proper action to take but is unable to perform it. You operate in ways that are inconsistent with your personal and professional ideals, undermining your integrity and authenticity (3). Several studies have highlighted the negative effects of MD, finding links between higher levels of MD and negative judgements of the ethical atmosphere (1,4).

When compared to other health workers, nurses are at a higher risk of developing moral distress. This is due to nurses having long periods of direct contact with patients and dealing with several ethical issues (5). MD is a common phenomenon in nursing that can cause issues while connecting with patients and giving appropriate care. Moral distress can have a negative impact on society's health patterns by interfering with efforts to attain healthcare system goals (6). MD is a common occurrence in the nursing profession and is one of the leading reasons for job dissatisfaction, burnout, and nurse resignations (7).

When nurses know what is morally proper to do but are unable to do so owing to a variety of constraints, they experience distinct but not restricted symptoms such as guilt, anger, and frustration. MD can also serve as a stimulus for introspection, growth, and advocacy (8). According to studies conducted in the United States of America (USA), Australia, and Saudi Arabia, the proportion of nurses experiencing moral distress is 93%, 72%, and 75.7%, respectively (9–11). Similarly, research conducted in Ethiopia found that two-thirds of hospital nurses had MDs (5). So far, research has concentrated on assessing moral distress in specialised working units such

as ICUs and emergency rooms (12–15). The limitation of the previous study was not identifying the magnitude of moral distress across the working units, which will be useful to determine which nurses in which working units are more likely to experience moral distress (16). Furthermore, little is known regarding the level of moral distress among Ethiopian nurses, and no similar study has yet been undertaken in the Arsi Zone.

The working environment and perceived organisational support are environmental determinants of MD experience among nurses (5,17). Personal or internal predictors of moral distress include self-doubt, lack of assertiveness, socialisation to obey commands, perceived powerlessness, job unhappiness, perceived inadequate communication, and a lack of comprehension (1,16,18).

MD is associated with a lack of nursing staff, gender, insufficient nursing experience, a lack of organisational and professional support, insufficient nursing education and knowledge, poor physician-nurse collaboration, a lack of ethical awareness and teamwork, a heavy workload, poor quality of care, and moral violence (15,19,20).

1.2. Statement of the problem

Globally, healthcare professionals are known to experience moral distress. Unresolved moral distress may result in burnout, quitting the field, or a withdrawal from the moral aspects of patient care (21). According to a study conducted in America, the magnitude of MD among nurses working for the American Association of Critical-Care Nurses is 93% (9).

A systematic literature review and meta-analysis done in Germany shows nurses experienced a significantly higher level of moral distress than physicians, psychologists, and pastoral counsellors (22). According to a South African study, nurses experienced moderate levels of MD (23). A study shows the frequency and severity of moral distress are high and are serious problems in the nursing profession (24).

Moral distress affects nurses, patients, medical professionals, and the healthcare system negatively. Moral distress can be lessened in the healthcare industry, but it won't ever be totally removed (25). As a major issue affecting nurses in all health care facilities, the nursing profession is experiencing MD. The conflict between knowing what to do and not doing it in the right way results in moral distress for nurses (26). These limitations may be brought on by individual, professional, or organizational circumstances. To put it another way, moral distress is expected when a nurse is compelled to act against their convictions because of restrictions like a lack of resources or power (7).

One of the main causes of professional burnout, job withdrawal, fatigue, and avoiding patient care among nurses is MD, which is widespread in nursing practise (15). The consequences of MD are serious and can lead nurses to burnout and dissatisfaction with the work environment, so that the quality of care provided for the patient faces some problems (20). When nurses view ethical issues as being at odds with their professional values, they experience MD, which is characterized by negative stress symptoms (27).

Moral distress has a deleterious effect on nurses' physical and psychological health that can negatively impact nurses, patients, and health care facilities (19). Nurses experience the common signs of MD, including physical symptoms like headaches, inappetence, palpitations, gastrointestinal problems, and powerlessness, as well as psychological symptoms like anger, frustration, guilt, impotence, and loss of self-esteem (5,8).

Studies conducted in Ethiopia show the proportions of moral distress among nurses are 83.7% and 70.16%, respectively. Sex, working hours, professional commitment, autonomy, and working environment; work experience; perceived poor communication; perceived powerlessness in decision-making; inadequate staffing; and the appropriate provision of care were significantly associated with moral distress (5,16). African nurses' moral suffering has not been the subject of much research. Existing publications are mostly focused on qualitative studies.

According to studies conducted in Ethiopia, the proportion of moral distress among nurses is 83.7% and 70.16%, respectively. Work experience, perceived poor communication, powerlessness in decision-making, inadequate staffing, and improper provision of care were all substantially associated with moral distress (5,16). There have not been many studies on the moral distress of African nurses. Existing articles are primarily focused on qualitative research.

To the best of my knowledge, the working unit has not yet been included as a variable in the published studies on the prevalence of moral distress and associated factors in Ethiopia. Additionally, previous studies were conducted on the referral hospitals and in different zones of this study. Even though moral distress is a popular research topic internationally, there has not been much research on or discussion about it in Ethiopia. As a result, the topic remains mostly unexplored and understudied. Therefore, the primary aim of this research is to assess the level of moral distress and associated factors among nurses in West Arsi zone public hospitals, south-east Ethiopia, in 2023.

1.3. Significance of the study

Identifying the psychological challenge nurses face as a profession can be done by determining the level of moral distress. Finding characteristics linked to moral distress has important significance for identifying viable intervention techniques to treat this negative psychological experience that nurses confront on a regular basis at work. Furthermore, the result of this study will be distributed to many governmental and non-governmental organisations, and nurses' mental health will receive special attention. Aside from that, there have been insufficient studies on moral discomfort in Ethiopia. As a result, both academics and policymakers can benefit from this work. It can also provide knowledge to the scientific community by including the working unit as a variable, which was a restriction of prior studies. This study is significant for me as a researcher since it is my first-hand experience, and I am also the one who is vulnerable as a profession. In general, this study will be useful to nurses, the community, policymakers, researchers, and governmental and non-governmental organisations striving to alleviate moral distress among nurses.

2. LITERATURE REVIEW

Moral distress arises in situations where nurses know or believe the right thing to do but, for various reasons (including fear or circumstances beyond their control), cannot take the right action or prevent a particular harm. When values and commitments are compromised in this way, nurses' identity and integrity as moral agents are affected (28). A high level of moral distress in nurses is a major factor that affects their performance and will cause them to burn out. (24)

2.1. Proportion of moral distress

A cross-sectional study conducted in Australia shows that the level of moral distress among health care providers was 72% (10). According to a study conducted by Corley, 80% of nurses experienced moral distress (26). A survey conducted among members of the American Association of Critical-Care Nurses shows 93% of study participants experienced moral distress (9). Studies conducted in Saudi Arabia, Brazil, and Iran revealed that the magnitude of severe moral distress is 33.8%, 41.5%, and 24.3%, respectively (11,27,29).

According to a cross-sectional study conducted in the south-western part of Ethiopia in 2019, 70.16% of nurses had experienced a high level of moral distress (5). An institutional-based cross-sectional study done in the northern part of Ethiopia among eligible nurses shows that the proportion of moral distress was 83.7% (16).

2.2. Factors Associated with Moral Distress

2.2.1. Socio-demographic factors

A study conducted on the prevalence of severe moral distress among nurses in Saudi Arabia identified a significant association between severe moral distress and age, specifically that younger nurses are more likely to experience moral distress than older nurses (11). A descriptive cross-sectional study conducted in 2019 among Iranian nursing professional's shows that the level of moral distress was significantly higher among those under 30 years of age, female nurses, nurses with less than 10 years' work experience, and nurses with a higher level of education. According to this study, the severity of moral distress decreased as nurses' age and years of experience increased (15).

A descriptive cross-sectional study done in north-west Ethiopia revealed that the proportion of moral distress among single nurses was 87.8% when compared with married nurses (16). An institutional-wide survey revealed that providers working in adult or intensive care unit (ICU) settings had higher levels of moral distress than did clinicians in paediatric or non-ICU settings. A descriptive quantitative study conducted in the USA shows that females reported statistically significantly higher moral distress scores than did males (19). An institutional-based cross-sectional study done in 2019 among nurses revealed the total score of moral distress was significantly higher among male nurses than female nurses (7). A similar study conducted in Ethiopia shows male nurses are 2.4 times more likely to develop moral distress than female nurses (5).

Studies show nurses with a higher level of education experience a higher level of moral distress than nurses with a low level of education (7,15). Nurses who had a high moral distress level were three times more likely to consider leaving their position compared with respondents who had a medium or low moral distress level (8.7% and 2.9%, respectively) (27).

Studies conducted in Iran and Canada show that nurses with work experience less than 10 years' experience moral distress more than nurses with work experience greater than 10 years (15,30). Similarly, researchers discovered that nurses with 11–20 years of experience were twice as likely as nurses with 0–10 years of experience to experience moral distress (16). A study done by

Watson-Subia on moral distress and job satisfaction found that those staff nurses who have a low salary have a high level of moral distress (18).

2.2.2. Environmental factors

2.2.2.1. Working Environment

Moral distress declines and job satisfaction rises when nurses feel supported in a secure, moral atmosphere where their clinical judgement and reasoning are recognised (31). Studies identified a negative work environment as a significant predictor of moral distress (5,32). Similarly, a descriptive-analytical-correlational study conducted among Iranian nurses shows that creating a positive work environment for nurses decreases their moral distress and their tendency to leave their job or even their profession (6). Compared to their counterparts, nurses who felt their work environment was morally distressing were nine times more likely to consider leaving their job (33). A study conducted in Ethiopia also revealed that nurses who worked in unfavourable conditions had higher levels of moral distress than those who did (5).

2.2.2.2. Perceived organisational support

According to a survey conducted in the United States, there is a significant relationship between moral distress and perceived organisational support (34). A correlational descriptive study conducted in 2018 among nurses found a strong association between a low level of perceived organisational support and high moral distress (17).

2.2.3. Personal factors

2.2.3.1. Level of job satisfaction

A study found a negative correlation between moral distress and job satisfaction, meaning that the respondents' job satisfaction decreased as their moral distress increased (35). Lack of job satisfaction for nurses in the health care facility was highly correlated with a high level of moral distress (18). Similarly, according to a study conducted in Iran, nurses who experience a high level of moral distress have low levels of job satisfaction (36). Lower job satisfaction, inadequate staff communications, and an instrumental leadership style were all strongly associated with moral distress among nurses, according to a study on the topic conducted in the Netherlands (37). A study found that there is a high correlation between moral distress and job dissatisfaction. According to this research, 42.8% of research participants expressed a willingness to quit their jobs (9).

2.2.3.2. Autonomy

According to a study conducted among European intensive care nurses, a lower level of autonomy was associated with an increase in the frequency and intensity of moral distress (38). A descriptive correlation study done in Iran revealed that a lack of autonomy makes it difficult for nurses to practise effectively and efficiently, and it even has the potential to cause moral distress (14). However, one study found a substantial correlation between professional autonomy and moral distress. This link was attributed to nurses' increased emphasis on making their own judgements and using their own knowledge, which led to more conflicts and more moral distress (39).

2.2.3.3. Professional commitment

According to a study conducted in the Netherlands, moral distress among caregivers can result from failing to fulfil a professional commitment to provide care when necessary (40). Similarly, a study conducted in south-west Ethiopia reported that nurses who were not committed to their profession experienced more moral distress than the committed ones (5).

2.3. Conceptual framework

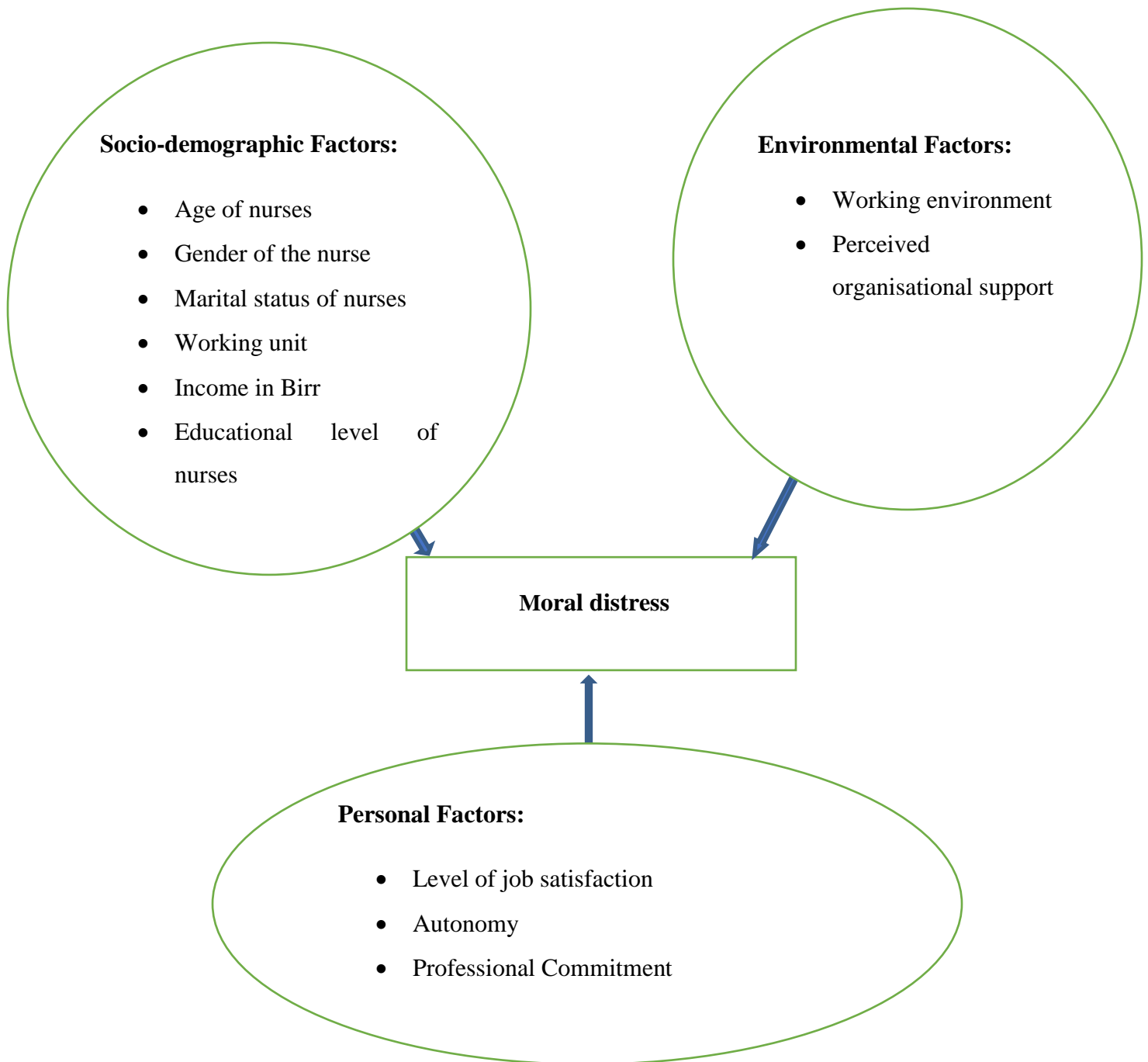


Figure 1: A conceptual framework on the potential determinants of a nurse's moral distress was developed by adapting and modifying various literatures (5,16,19,20,36,37,41,42).

3. OBJECTIVES

3.1. General objective

- To assess the moral distress and associated factors among nurses in West Arsi zone public hospitals, south-east Ethiopia, 2023.

3.2. Specific objective

- To determine the proportion of moral distress among nurses in West Arsi zone public hospitals, south-east Ethiopia, 2023.
- To identify factors associated with moral distress among nurses in West Arsi zone public hospitals, south-east Ethiopia, 2023.

4. METHODOLOGY

4.1. Study area and period

The study was conducted among nurses working at West Arsi zone public hospitals in the Oromia Regional State, which is located in Ethiopia's centre area, from February 13 to March 2, 2023. The study was conducted in four hospitals (Shashemene referral hospital, Dodola general hospital, Melka Oda general hospital, and Loke primary hospital). Shashemene, the administrative centre of the zone, is located 165 km from Addis Abeba and is one of the 20 zones that comprise the Oromia regional state. The West Arsi zone is home to 2,929,894 people. Shashemene Referral Hospital, Melka Oda General Hospital, Dodola General Hospital, Kokosa Primary Hospital, Loke Primary Hospital, and three private/NGO hospitals (Negele Arsi General Hospital, Feyta Primary Hospital, and Gambo Primary Hospital) are located in the zone. There are also 81 functional health centres, 351 functional health posts, 179 private clinics, 1 non-governmental organisation clinic, and 95 pharmacies and drug stores.

4.2. Study design

An institutional-based cross-sectional study was employed.

4.3. Population

4.3.1. Source population

All nurses working in West Arsi Zone public hospitals were the source of population.

4.3.2. Study population

The study population consisted of all nurses working in selected public hospitals in the West Arsi Zone.

4.4. Eligibility

4.4.1. Inclusion criteria

All nurses in selected public hospitals on active duty during the study period were included in this study.

4.4.2. Exclusion criteria

Nurses who provide free services were excluded from this study.

4.5. Sample size determination and sampling procedure

4.5.1. Sample size

The sample size for this study was determined using a single population proportion formula by assuming the following assumptions: By considering the proportion of moral distress among nurses (70.16%, obtained from a study conducted in Jimma referral hospital) (5).

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

Where n= the required sample size.

Z= the standard score corresponding to the 95% CI and was equal to 1.96.

P= the proportion of moral distress, which was assumed to be 70.16%.

d= level of precision (margin of error), which was taken at 5%.

$$n = \frac{z^2 p(1-p)}{d^2} \quad n = \frac{(1.96)^2 0.7016(1-0.7016)}{0.05^2} = 322.$$

By adding 10% non-response rate, $322+32 = 354$.

4.5.2. Sampling Procedure

There are eight public hospitals in the West Arsi zone, with four of them chosen by a simple random sampling procedure. The total number of nurses in these four hospitals was 447 (Shashemene referral hospital = 180, Melka Oda General Hospital = 90, Dodola General Hospital = 97, and Loke Primary Hospital = 60). 354 nurses were chosen from among the 427 participants based on size. The study included 149 patients from Shashemene Referral Hospital, 75 from Melka Oda General Hospital, 80 from Dodola General Hospital, and 50 from Loke Primary Hospital. To identify study participants, a simple random sampling procedure was used. The sample size was allocated proportionally using the following formula: =

$$:nH = \frac{n.NH}{N} =$$

Where; nH = required sample size from each hospital

n= the total sample size (354).

NH= number of nurses in a specific hospital.

N= total number of nurses in three hospitals.

$$n \text{ Shamenene RH} = \frac{n.NH}{N} = \frac{354.180}{427} = 149$$

$$n \text{ Melka Oda GH} = \frac{n.NH}{N} = \frac{354.90}{427} = 75$$

$$n \text{ Dodola GH} = \frac{n.NH}{N} = \frac{354.97}{427} = 80$$

$$n \text{ Loke PH} = \frac{n.NH}{N} = \frac{354.60}{427} = 50$$

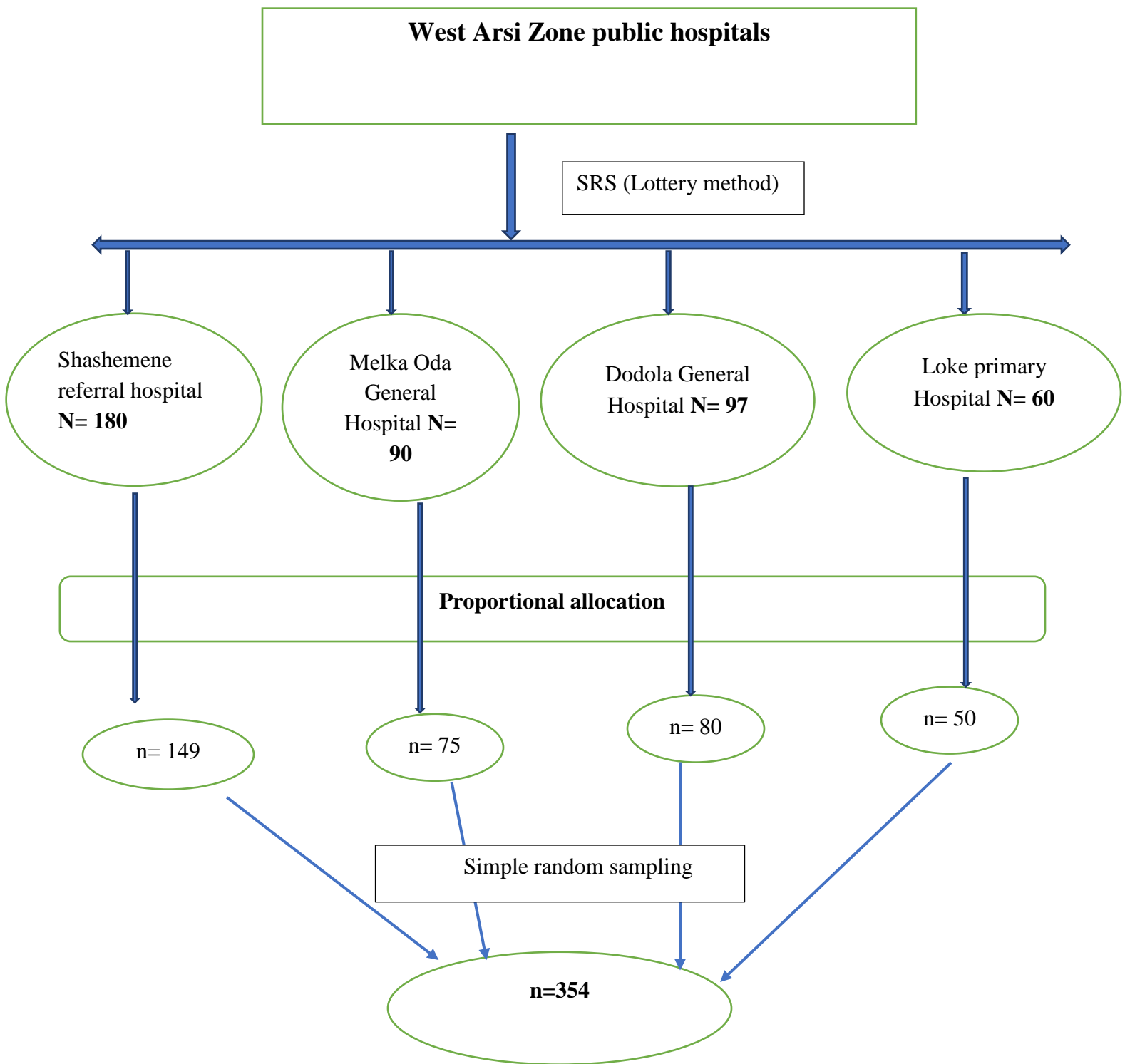


Figure 2: Schematic Presentation of the Sampling Procedure

4.6. Operational definitions

Moral distress is a type of mental distress brought on by moral restraints or conflicts. The participant's level of moral distress was measured by nine items. Based on the mean score, below the mean was considered low moral distress, and greater than or equal to the mean was considered high moral distress (5).

Working environment: a setting where nurses worked clinically with various experts Based on the mean score of participants' responses, it was considered a not conducive working environment for below the mean score and a conducive working environment for greater than or equal to the mean score (43).

Perception of organisational support: This is the nurses' perception of the organisational assistance they received while working in the hospital. Based on the mean score of the participants' responses, it was considered poor perception for a score less than the mean and good perception for a score greater than or equal to the mean (17).

Job satisfaction is treated as a collection of feelings associated with a job situation, or simply how the nurses feel about their job. Based on the mean score of the participants' responses, it was considered not satisfied for scores less than the mean and satisfied for scores greater than or equal to the mean (44).

Professional autonomy is the nurse's freedom or right to make decisions in the clinical environment. Based on the mean score of the participants' responses, it was considered not autonomous for less than the mean score and autonomous for greater than or equal to the mean score (45).

Professional commitment refers to nurses' internal attitude towards their professions. Based on the participants' responses, it was considered not committed for less than the mean and committed for greater than or equal to the mean score (41,46).

4.7. Study variables

4.7.1. Dependent variable

- Moral distress

4.7.2. Independent Variables

Socio-demographic factors: age, sex, marital status, working unit, income, educational level, experience in the past year, and position in the hospital

Personal factors: level of job satisfaction; autonomy; professional commitment.

Environmental factors: working environment, and perceived organizational support

4.8. Data Collection Methods and Instruments

4.8.1. Instruments and measurement

A structured questionnaire was used to collect data from nurses. The questionnaire was prepared based on previous literature. It was constructed by adopting and modifying previous research done on the same topics. The questionnaire was written in English. The questionnaire consisted of four parts and a total of 57 items. The first part contains information about the socio-demographic factors of the nurses; the second part consists of Hamric's Moral Distress Scale-Revised (MDS-R) (43,47), the third part is about environmental factors; and the last one is about personal factors. The socio-demographic characteristics contained nine items. The Moral Distress Scale Revised instrument, which contains nine items, was used. Environmental factors include the working environment, which consists of 16 items, and the perception of organisational support, which consists of 5 items. Totally, the above environmental factors and variables contain 21 items. All the variables was measured on a 4-point Likert scale ranging from 1: strongly disagree to 4: strongly agree. Personal factors are: level of job satisfaction, which consists of 7 items; professional autonomy, which consists of 4 items; and professional commitment, which consists of 6 items. All the above personal factor variables are 17 items. The moral distress scale, working environment scale, perception of organisational support scale, level of job satisfaction scale, professional autonomy scale, and professional commitment scale were adopted from a study done by Beyaffers et al. (5).

4.8.2. Data collector

Data was collected using a structured, self-administered questionnaire by six BSc nurses and supervised by one MSc student. Each selected nurse received a clear explanation of the purpose of the study. The supervisors supervised the data collectors daily. Finally, the principal investigator collected and compiled the collected data.

4.9. Data management and analysis procedures

The data was entered into a computer using EpiData 3.1 software and exported to SPSS V.26 statistical software for cleaning and further analysis of the data. Descriptive statistics were used to describe the study populations using measures of frequency, central tendency, and dispersion that were displayed using tables. Logistic regression was used to determine the association of the different independent variables with the outcome variable. The necessary assumption of logistic regression was checked. Then, finally, statistical significance was determined using a p value < 0.05 and a 95% CI.

4.10. Data quality assurance

To assure quality of the data the following measures was undertaken; during the actual data collection process, supervisor cross checked the data frequently for completeness. The data collection tool was pre-tested in Gambo primary hospital prior to the actual data collection on 5% of the calculated sample size of 18 nurses, those who are not the actual study participants. A pre-test questionnaire containing basic sociodemographic variables, the Hamric's Moral Distress Scale—Revised (MDS-R), environmental factors, and personal factors. The data was cleaned for inconsistencies and missing values and amendment was considered as needed before data analysis.

4.11. Ethical considerations

Ethical approval and clearance were obtained from the Institutional Ethical Review Committee (IRC) of Addis Ababa University college of Health Science and School of Nursing. Permission was also obtained from Oromia health bureau and West Arsi Zone health office. Written informed consent was obtained from nurses after a clear explanation was given about the aim of the study. Confidentiality and privacy were maintained during data collection, analysis, and reporting, in

which the information obtained from the respondents was not shared with anyone other than the data collectors and principal investigator.

4.12. Dissemination of results

The result of this study will be disseminated to the Ministry of Health, the Oromia regional health bureau, the West Arsi zonal health office, and the AAU School of Nursing and Midwifery. The findings will also be disseminated to different concerned organizations that will make contributions to improve the psychological health condition of the nurses through the presentation and publication of the paper

5. RESULT

5.1. Sociodemographic characteristics of study respondents

A total of 349 participants were enrolled in this study with a response rate of 98.5%. The mean and SD age of the respondents was 31.92 ± 7.0 years with the majority of them 276(76.5%) were 18-35 years of age. Among all of the participants, 194(55.6%) of them were females. The majority of the respondents were Oromo 303(86.8%) and almost half of the participants were Muslims 175(50.1%). Out of 349 participants, 293(84.0%) hold a bachelor of degree in nursing profession. The mean and SD year of experience was 7.7 ± 6.9 . Among 349 participants, 275(78.8%) of them have 0-10 years of professional experience. The majority of the respondents 249(71.3%) were senior in their position. (Table 1)

Table 1: Sociodemographic characteristics of nurses working in West Arsi Zone public hospitals, south-east Ethiopia, March 2023 (n = 349).

Variables	Category	Frequency	Percent (%)
Age	18 -35	267	76.5
	36 – 45	59	16.9
	45 -60	23	6.6
Sex	Male	155	44.4
	Female	194	55.6
Ethnicity	Oromo	303	86.8
	Amhara	32	9.2
	Tigre	8	2.3
	Others*	6	1.7

Religion	Orthodox	104	29.4	
	Muslim	175	50.1	
	Protestant	66	18.9	
	Others**	4	1.1	
Marital status	Single	119	34.1	
	Married	215	61.6	
	Divorced	11	3.2	
	Widowhood	4	1.1	
Working unit	Medical ward	52	14.9	
	Surgical ward	56	16.0	
	Emergency	50	14.3	
	ICU	23	6.6	
	Paediatrics ward	47	13.5	
	Gynaecology	39	11.2	
	NICU	34	9.7	
	OPD	48	13.8	
	Educational status	Diploma	43	12.3
		Degree	293	84.0
Msc		13	3.7	
Monthly income	4605-7162.2 ETB	219	62.8	
	7162.3-11305 ETB	130	37.2	

Experiences(years)	0-10	275	78.8
	11-20	52	14.9
	21-30	22	6.3
Position	Junior	71	20.3
	Senior	249	71.3
	Nurse manager	29	8.3

*(Sidama and Wolaita), ** (Adventist and wakefata)

5.2. Level of Moral Distress

Out of 349 participants, 255 (73.1%) and 94 (26.9%) reported high and low levels of moral distress, respectively. The respondents' mean and standard deviation for moral distress was 22.8 + 10.8.

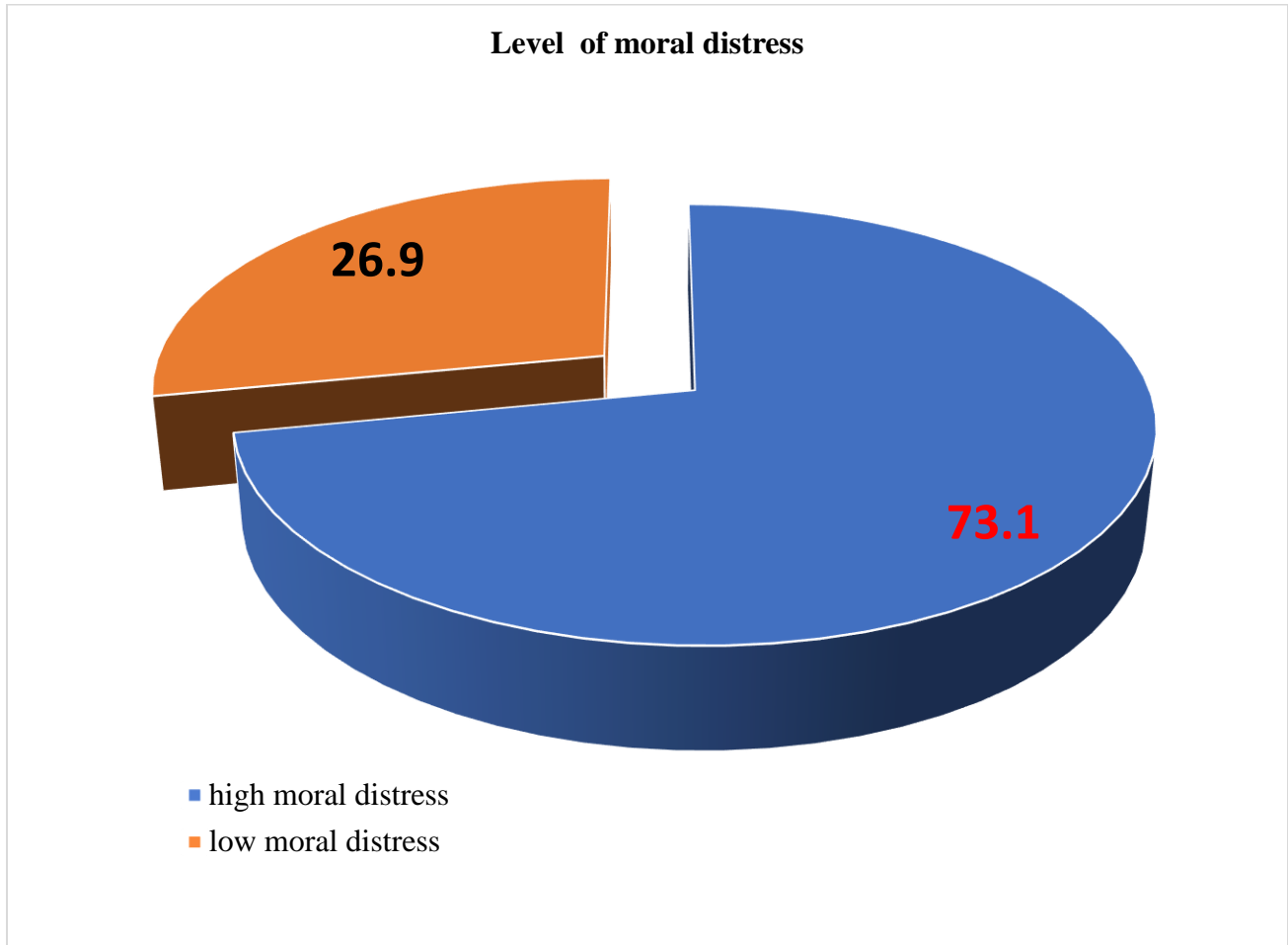


Figure 3: Proportion of moral distress among nurses working in West Arsi Zone public hospitals, south-east Ethiopia, March 2023 (n = 349).

5.3. Personal and environmental Factors

Out of 349 participants 208 (59.6%) not satisfied in their job. Similarly, from 349 participants of this research around 185(53.0%) of them are not autonomous in practicing their profession. One hundred seventy (48.7%) of the 349 participants worked in an unfavourable environment. According to their assessment of organisational support, 206 (59.0%) nurses had a negative perception towards their organisation. (Table 2)

Table 2: Personal and environmental factors of nurses working in West Arsi Zone public hospitals, south-east Ethiopia, March 2023 (n = 349).

Variables	Category	Frequency	Percent (%)
Job Satisfaction	Not satisfied	141	40.4
	Satisfied	208	59.6
Autonomy	Not autonomous	185	53.0
	Autonomous	164	47.0
Professional commitment	Committed	162	46.4
	Not committed	187	53.6
Working environment	Not conducive	170	48.7
	Conducive	179	51.3
Perception of organizational support	Poor perception	143	41.0
	Good perception	206	59.0

5.5. Factors associated with moral distress among nurses

In, bivariate analysis socio demographic characteristics (sex, working unit, monthly salary and years of experience), personal factors (job satisfaction, autonomy, and professional commitment), and Organizational factor (working environment) were had p-value < 0.25 and candidate for the multivariable logistic regression analysis. In, multivariable logistic regression analysis sex, job satisfaction and working environment were associated with moral distress among nurses.

According to this study the nurses who were male were 54% [AOR (95% CI)], [0.46 (0.274 - 0.914)] and (P = .023) less likely to develop high level of moral distress compared to female. The nurses who were not satisfied 8 times [AOR (95% CI)], [7.668(3.075, 19.121)] and (P = .000) more likely to develop high level of moral distress compared with satisfied ones. The nurses who were worked in not conducive environment were 4 times [AOR (95% CI)], [4.069(1.915, 8.648)] and (P = .023) more likely to have high level of moral distress. (Table 4)

Table 3: Factors associated with moral distress among Nurses working in West Arsi zone public hospitals, south east Ethiopia, March, 2023 (n = 349).

Variables	Category	Moral distress		COR	AOR
		High	Low		
Sex	Male	100	55	0.46 (0.28, 0.74)*	0.5 (0.27, 0.91)*
	Female	155	39	1	1
Working unit	Medical ward	35	17	0.48 (0.19, 1.20) *	0.54 (0.18, 1.64)
	Surgical ward	37	19	0.45 (0.18, 1.12) *	0.36 (0.12, 1.06)
	Emergency	41	9	1.05 (0.38, 2.92)	0.99 (0.30, 3.30)
	ICU	18	5	0.83 (0.24, 2.84)	0.55 (0.12, 2.50)
	Paediatrics ward	32	15	0.49 (0.19, 1.27) *	0.46 (0.15, 1.44)

Monthly salary	Gynaecology	24	15	0.37 (0.14, 0.97) *	0.41 (0.13, 1.29)
	NICU	29	5	1.34 (0.41, 4.42)	0.76 (0.19, 3.03)
	OPD	39	9	1	1
	4605-7162.2	168	51	1.63 (1.01, 2.64)	1.59 (0.75, 4.00)
	7162.2-11305	87	43	1	1
Years of experience	0-10	200	75	1.52 (0.61, 3.78)	0.74 (0.21, 2.59)
	11-20	41	11	2.13 (0.71, 6.36) *	1.72 (0.45, 6.58)
	21-30	14	8	1	1
Job satisfaction	Not satisfied	134	7	13.76 (6.13, 30.89)*	7.67 (3.08, 19.12)*
	Satisfied	121	87	1	1
Autonomy	Not autonomous	145	40	1.78 (1.10, 2.87)*	1.16 (0.62, 2.15)
	Autonomous	110	54	1	1
Professional commitment	Not committed	129	33	1.89 (1.16, 3.09)*	0.76 (0.39, 1.47)
	Committed	126	61	1	1
Working environment	Not conducive	157	13	9.98 (5.28, 18.89)*	4.07 (1.92, 8.65)*
	Conducive	98	81	1	1
Perception of organizational support	Poor perception	130	13	6.48 (3.43, 12.23)*	1.78 (0.77, 4.01)
	Good perception	125	81	1	1

*Adjusted odd ration at (95%) of CI with p value < 0.05 were statistical significance.

AOR: Adjusted odd ratio, COR: Crude odd ratio

6: DISCUSSION

In this study we have found the level of moral distress and associated factors among nurses working in Arsi zone public hospitals. This cross sectional study involved 349 nurses from eight working units. The analysis of this study suggested that almost three fourth (73.1%) of the study participants experienced high level of moral distress.

The magnitude of higher moral distress in this study is in line with study conducted in Australia (72%) and Jimma (70.16%) (5,10). This might be due to similarity in study design, number of sample size, method of data collection and tool used to assess the level of moral distress. The result of current study was higher than studies conducted in Saudi Arabia (33.8%), Brazil (41.5%), and Iran (24.3%)(11,27,29). The difference could be attributed to study setting, socio-economic difference, working environment, work load, and technological advancement.

But, it is relatively low compared to studies done in America (80%) and northern part of Ethiopia (83.7%) (16,26). The discrepancy could be due to difference in socio demographic, culture, basic environmental, personal characteristics of the respondents and tools used to measure the level of moral distress.

The study also demonstrated from sociodemographic factors sex of the nurses showed significant association. Comparing female nurses to male nurses while controlling for all other factors, female nurses reported higher levels of moral distress, which is supported by research's from Iran (15) and the USA (19). This could be due to women are more morally sensitive than men and experience guilt when they know the correct thing to do but are unable to carry it out because of differing environmental and personal restrictions (19). However, this finding contradict with the studies done in Ethiopia (5,16). This could be as a result of the socio-cultural influences on the women in the research area.

Controlling the other variables, job satisfaction were the only factor showed significant association with high level of moral distress. Nurses who were not satisfied in their job were nearly eight times more likely to have high moral distress compared to nurses who were satisfied [AOR=7.67, 95% CI: 3.075, 19.121]. This is in line with studies done in USA (9), Philippines (18), south west Iran (35), south eastern united states (36), and Netherland (37) respectively. This might be due to not

being satisfied in their job will lead to sadness and discouragement which finally end up in conflict of an individual's views or inner moral standards and his /her environment.

After controlling for all other variables, the working environment remained the significant variable of environmental factors. The study found that nurses working in an unfavourable working environment were four times more likely to have high moral distress than their counterparts or nurses working in a favourable working environment [AO=4.069, 95% CI:1.915, 8.648]. This study's findings are similar to those of research conducted in Iran (6), Canada (32), Virginia (33), the south-eastern United States (36), and Jimma (5). This might be due to a lack of managerial ability, unhealthy relationship with other professionals, or a reduction in the quality of nursing care. Furthermore, unfavourable working conditions induce moral distress and burnout. This also in turn affects patient centred care, health team communication, patient's family, community, and health institution.

6.1 Strengths and Limitations of the study

6.1.1 Strength of the study

- ✓ Using moral distress revised scale (MDS-R)
- ✓ It was tried to cover the different demographic and social-economic, personal and environmental factors that were supposed to determine moral distress

6.1.1 Limitations of the study

- ✓ Recall bias may occurred
- ✓ Being a cross sectional study design
- ✓ Respondents difference in perception and knowledge on the definition of moral distress, some personal and environmental factors
- ✓ The research was limited to the public hospitals. Thus, the finding did not generalize for health centres

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

From this study we concluded that three fourth of nurse have experienced high level of moral distress. The major predictors of moral distress among nurses were sex, job satisfaction, working environment.

7.2. Recommendation

Based on the study's findings, the following recommendations are given to reduce the proportion of moral distress among nurses.

- According to this study, public hospital administrators and managers should prioritise the prevention and reduction of moral distress among nurses.
- Arsi zone public hospitals should prioritise female nurses, improve working conditions, and increase job satisfaction; and plan training and workshops to provide educational programmes and emotional support in order to identify and reduce the variables that contribute to the development of moral distress.
- We also urge that the Ethiopian Nursing Association undertake initiatives to decrease nurses' moral suffering.
- In reaction to the challenge, the AAU School of Nursing and Midwifery should strengthen its ethical education approaches.
- By using this finding as a base line data and limitation of this study as gap we also recommend researchers to conduct mixed type of research and identify the root cause of this problem.

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9. ANNEXES

ANNEX I:

INFORMATION SHEET

Hello dear?

Dear respondent Hello, my name is _____.I am here to collect data for a study entitled, "Magnitude of Moral Distress and Associated Factors among Nurses in West Arsi Zone Public Hospitals, South East Ethiopia, 2023." The study is being conducted by Lemma Desalegn, an MSc Adult Health Nursing student at Addis Ababa University College of Health Sciences, School of Nursing and Midwifery. For this study, you are selected as a participant, and before getting your consent or permission for your participation, you need to know all necessary information related to the study. Thus, this information will be detailed, as the objective of this study is to assess the moral distress and associated factors among nurses in West Arsi Zone public hospitals, south-east Ethiopia, in 2023. You are being asked to take part in this study and to respond honestly. You are selected to be involved by chance. Your cooperation and willingness are greatly helpful in identifying problems in the mentioned area. This questionnaire may take 15 to 20 minutes to complete. There is no possible risk to participating in this study. Your name will not be written on this form, and all the information you give us will be kept confidential. Your participation is voluntary, and if you feel uncomfortable with any of the questions, it is your right to drop or stop filling out the questionnaire. If you have questions regarding this study or if you wish to know the result after its completion, it would be our pleasure to give you our phone number.

Are you willing to participate in this study? If yes, please proceed to the consent form.

Thank you

Please contact the principal investigator.

Mr. Lemma Desalegn

Tel. no – +251925348798 [Email:lemmadesalegn2015@gmail.com](mailto:lemmadesalegn2015@gmail.com)

ANNEX II: CONSENT FORM

Hello. How are you? My name is Lemma Desalegn. I am a final year Post Graduate Adult Health Nursing Student at Addis Ababa University. The assessment of Magnitude of Moral Distress and Associated Factors among Nurses in Arsi Zone Public Hospitals, South East Ethiopia, 2023, made for the partial fulfilment of my Master's degree in Adult Health Nursing. The aim of this study is to assess Magnitude of Moral Distress and Associated Factors among Nurses in West Arsi Zone Public Hospitals. The results of the study will be used as baseline information to design appropriate interventional strategies to provide comprehensive psychotherapy care for nurses. The information you provide is confidential and is used only for the purpose of this study. Your cooperation and participation until the completion of the questionnaire is very necessary for the successful completion of the assessment. You will neither get harmed nor will you get benefit as a result of participating in this study. I therefore ask your genuine willingness. However, you have the right to decline if you do not volunteer to participate at any time. If you have any question and confusion regarding the questions, you have the right to ask me at any point or you can contact me on the following address.

Email: lemmadesalegn2015@gmail.com

Phone number. +251925348798

Are you willing to participate? Yes, No Data collector: Name_____

Signature_____Date_____

ANNEX III: QUESTIONNAIRE

Part 1: Socio-demographic characteristics

Sr.no	Sociodemographic characteristics	
101	Age in year	_____In years
102	Sex	1.Male 2.Female
103	What is your ethnicity	1. Oromo 2. Amhara 3. Tigray 4. Others (specify)
104	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Others (specify)
105	What is your marital status?	1. Single 2. Married 3. Divorced 4. Widowhood
106	What is your working unit?	
107	What is your educational status?	1. Diploma

		2. Degree 3. Msc and above
108	What is your monthly income?	_____ In birr
109	How many years of experience do you have?	_____ In years
110	What is your position?	1. Junior nurse 2. Senior nurse 3. Nurse manager

Part 2. Moral distress:

The following questions are statements that represent possible feelings that individuals might have about **moral feelings**. With respect to your own feelings about these statements, please indicate the degree of your agreement or disagreement by ticking (✓) on one of the four alternatives beside each statement.

1= strongly disagree 2= disagree 3= agree 4= strongly agree

Sr. No	Number of items	SD=1	D=2	A=3	SA=4
201	Provide less than optimal care due to pressures from administrators or insurers to reduce costs.				
202	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient.				

203	Carry out the physician's orders for what I consider unnecessary tests and treatments.				
204	Continue to participate in care for a hopelessly ill person who is being sustained on a ventilator, when no one will make a decision to withdraw support				
205	Assist a physician providing incompetent care.				
206	Be required to care for patients I don't feel qualified to care				
207	Work with nurses or other healthcare providers who are not as competent as the patient care requires				
208	Witnessed diminished patient care quality due to poor team communication.				
209	Work with levels of nurse or other care provider staffing that I consider unsafe				

Part 3: Environmental factors

I. Working environment: The following questions are statements that represent possible feelings that individuals might have about **the condition of working environment** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4** according to each subheading. **SD = strongly disagree D = disagree A = agree SA = strongly agree**

Sr. No	Number of items	SD=1	D= 2	A=3	SA=4
	Nurse manager, ability leadership and support				

301	A nurse manager or immediate supervisor who is a good manager and leader				
302	A nurse manager who backs up the nursing staff in decision making, even if conflict is with a doctor				
303	A supervisory staff that is supportive of the nurses				
304	Administration to listens and responds to employee concerns				
	Nurse participation in the workplace				
305	Opportunities for advancement				
306	Active staff development or continuing education program for nurses				
307	Nurse are involved in the internal governance of the hospital				
	Staffing and resource adequacy				
308	Enough staff to get work done				
309	Adequate support services allow me to spend time with my patients.				
310	Enough time and opportunity to discuss patient/client/resident care problems with other nurses.				
311	Working with nurses who are clinically competent.				
	Nursing foundations for quality care				
312	Written, up to date nursing care plans for all patients/clients/residents.				
313	Patients/clients/residents care assignments that foster continuity of care				

314	Nursing care is based on a nursing model, rather than a medical model				
	Collegial Nurse physician Relations				
315	Doctors and nurses have good working relationships				
316	Collaboration between nurses and doctors				

II. Perception of organizational support: The following questions are statements that represent possible feelings that individuals might have about **perceived organizational support** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4**.

SD = strongly disagree D = disagree A = agree SA = strongly agree

Sr. No	Number of items	SD=1	D=2	A=3	SA=4
318	The organization that I have worked for have strongly considered my goals and values as an employee				
319	The organization that I have worked for have really cared about my well-being				
320	The organization that I have worked for have taken pride of my accomplishment at work				
321	The organization that I have worked for have tried to make my job as interesting as possible				
322	The organization that I have worked for have made me feel that if I have a problem, help is always available				

Part 4: personal factors

I. Job satisfaction: The following questions are statements that represent possible feelings that individuals might have about **satisfied or not satisfied on their professional job** respect to your own feelings about these questions please indicate the degree of your satisfaction or dissatisfaction with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4**.
1= “very dissatisfied, **2=**“dissatisfied, **3=**“satisfied, **4 =**“very satisfied

Sr. No	Number of items	1	2	3	4
401	The way my boss handles his/her workers.				
402	The competence of my supervisor in making decisions				
403	The chance to do something that makes use of my abilities				
404	My payment and the amount of work I do.				
405	The chances for advancement on this job				
406	The praise I get for doing a good job				
407	The feeling of accomplishment I get from the job				

II. Autonomy: The following questions are statements that represent possible feelings that individuals might have about **autonomy or right to make decision in the hospital** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4**.

SD = strongly disagree D = disagree A = agree SA = strongly agree

Sr.No	Number of items	SD=1	D=2	A= 3	SA=4
408	The program I follow is highly compatible with my choices and interests				
409	I feel very strongly that I have the opportunity to make choices with respect to the way I practice.				
410	I feel extremely comfortable when with the other practice participants				

411	I feel there are open channels of communication with the other practice Participants.				
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III. Professional commitment: The following questions are statements that represent possible feelings that individuals might have about **commitment to their profession** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the five alternatives beside each statement from **1 to**

4. **SD = strongly disagree D = disagree A = agree SA = strongly agree**

Sr.No	Number of items	SD=1	D=2	A =3	SA=4
412	My career is a central interest in my life.				
413	Working in my current profession is important to me.				
414	Pursuing my career is important to my self-image.				
415	I would recommend my profession as a career.				
416	I think my profession is a rewarding career.				
417	I would not want to work outside my profession.				