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# MANAGERIAL DECISION MAKING INVOLVEMENT AND ITS ASSOCIATED FACTORS AMONG NURSE MANAGERS IN SELECTED PUBLIC HOSPITALS, TIGRAY, NORTH ETHIOPIA, 2015.

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## APPROVED BY THE BOARD OF EXAMINATION

This thesis by Desta Siyoum is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of Masters of Science in Adult health Nursing.

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## Acronyms

AAU- Addis Ababa University

AOR-Adjusted odds ratio

BSC- Bachelor of Science

CEO- Chief Executive officer

CI –Confidence interval

COR-Crude odds ratio

CSA-Central Statistical Agency

DM-Decision making

EFY-Ethiopian Fiscal Year

ETB-Ethiopian Birr

FMOH – Federal Ministry of Health

IRB -Institution Review Board

MSC- Master of science

PI –Principal Investigator

SPSS-Statistical Package for the Social Sciences

TRHB -Tigray Regional Health Bureau

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## Abstract

**Background**: Nurse Managers are nurses in management level positions in hospitals such as matron, head nurse as well as coordinators. Effective nursing management and leadership are essential for the provision of desired patient care that will contribute to the improvement of any country's health indicators.

**Objective:** To assess managerial decision making involvement and associated factors by nurse managers at selected public hospitals, Tigray, north Ethiopia, in 2015.

**Methods**: Institution based cross sectional study design was used. Sample size was 113 and selected using simple random sampling technique. Odds Ratio and 95% Confidence interval were calculated. A binary logistic regression with its statistical significance and multivariate analysis was employed.

**Result:** Of the total respondents majority, 71(68.9%) of them didn't involve in managerial decision making. Those nurse mangers who were working in surgical ward 15.74 were more times likely to be involved in managerial decision making than those working in medical ward:[AOR =15.74 (95%CI: 1.32-186.99)]. Those nurse mangers who were working in ICU 86.6 times were more likely to be involved in managerial decision making than those working in medical ward :[AOR =86.6 (95%CI: 2.71 -2764.78)]. Matrons were 18.61 times more likely to be involved in managerial decision making than head nurse: [AOR= 18.61 (95CI%:1.03-335.41)] The odds of involvement of decision making among the respondents who had poor knowledge and skill were 2.56 lower than the odds of the respondents who hadn't poor knowledge and skill towards decision making: [AOR = 0.39( 95% CI (0.14-0.78)]

**Conclusion and recommendation**

Majority respondents were not involved in managerial decision making. Efforts of MOH, RHB, and administrators of the hospitals may be needed to improve managerial decision making of nurse managers and use their power regularly

**Key words**: nurse manager, decision making, power, public hospital

# 1. Introduction

## 1.1 Back ground

Marriner-Tomey states that ‗decision-making is a continuing responsibility of the nurse manager'(1). Decision making is a behavior exhibited in making a selection and implementing a course of action from alternatives (2). Conway defines decision-making as the process through which the values of an organization are identified and the means for achieving its goals are prescribed (3). Nurse Managers have an appointed management position within the organization with responsibilities to perform specific tasks (4).

Effective nursing management and leadership are essential for the provision of desired patient care that will contribute to the improvement of any country's health indicators. The nurse manager is the key individual whose leadership can directly influence functions of the nursing service department and ensure that desired quality of nursing services is achieved. The nursing service department globally is one of the disciplines that form a bigger part of the health care delivery system in a hospital where nurses constitute more than half of the health service work force (5).

To identify the appropriate course of action and effectively function, professionals must have understanding and control over the entire spectrum of activities associated with the job at hand. However, it may be that nurses are frequently unable to use their professional preparation, which focuses on autonomous practice and independent decision making, because they are powerless relative to organizational administrators and medical staff. Having control over the content of nursing practice may not be enough to provide power for nurses (6).

To effectively influence decision-making, nurse managers must be versatile in the exercise of multiple forms of power. Researchers who study decision-making within organizations are concerned with distribution and application of power across positions or level (7). Several definitions of power have been used in nursing. Power has been defined as having control, influence, or domination over something or someone (8).Another definition by Kanter views power as "the ability to get things done, to mobilize resources, to get and use whatever it is that a person needs for the goals he or she is attempting to meet"(9).

The role of the nurse in charge of the patient care unit has changed over the past several decades from being the ―head nurse" in the 1980's, who was the expert clinician, to becoming a manager of one or several units in the 1990's. Currently, the role has expanded even more to include more leadership behaviors such as counseling staff, orienting physicians, and facilitating teamwork on the units (10).

For the purpose of this study, the term "nurse managers" refers to nurses in management level positions in hospitals such as matron, head nurse as well as coordinators. Nurse Managers include those nurses, who contribute to the nursing profession by directing and coordinating the work of others (11).

## 1.2 Statement of the Problem

Nurses are the largest professional group within health service organizations. They are expected to provide good-quality care by diagnosing and treating human responses to health and illness (12). But whether and how nurses can provide such care has been identified as being dependent on their professional power (13). Tomey and Ellis and Hartley have also emphasized that no profession can provide suitable and qualified services unless its members feel power and have control over their own functions (1, 14). Thus, nurses need to be empowered themselves before embarking on a process of empowering others(15). Many members of the public perceive nursing as powerless and this belief is reinforced by nurses' perceptions of themselves as powerless (16). Some authors have identified characteristics in the nursing profession that reflect a powerless (17).

The dynamic and uncertain nature of health care environment requires nurses to be competent decision-makers in order to respond to clients' needs. Nurse Manager‘s decision making is an essential component of professional nursing care, nurses' ability to make effective decisions is the most important factor affecting the quality of care. In other words, they should be able to sift and synthesize information, make decisions and appropriately implement these decisions to solve their clients' problems in the context of a multidisciplinary team (18).

Changes in patient needs, medical technology, and financial resources create uncertainty in health care organizations' and require redesign of its structure and its process of care. Redesign changes have increased nurses' responsibilities in caring for patients. As a result, nurses require greater autonomy and participation in decision making. Greater participation in decision making by nurses results in better outcomes. However, nurse participation in decision making in an organization varies depending on many factors, including the influence of nurse manager

leadership and collaboration with physicians (19). The nursing profession remains committed to the provision of quality nursing care; however the practice of nursing seems to be shaped more and more by organizational decisions in which many nurse managers feel they have little opportunity to participate(11).

Also many research studies have focused on nurses' clinical functioning; most of these studies have linked the problem to the nurses' knowledge and skills (20). Despite the widely recognized relevance of understanding the concept of managers‘ decision- making, the studies in nursing has focused mainly on clinical and upper management levels and very little has been written about the nurse managers (21, 22). Study done in Iran University of Medical Sciences and Health Services showed that participation level of managers (head nurses) in decision making was low 34.0% and moderate 40.4% with satisfaction level of decision making low 28.7% and moderate 55.4%. (23)

Nurse Manager‘s involvement in managerial decision-making and its associated factors have little been studied particularly in Ethiopia. In addition the few studies done on decision making among nursing mangers done only head nurse and have inconsistence findings and the factor that associated it is not clearly stated. Thus, an important area for this study is to assess nurses' mangers involvement on managerial decision-making and its associated factors. Therefore this study was done in order to fill this gap.

### 1.3 Significance of the study

One of the most compelling arguments for the study nurse manager‘s involvement decision making and its associated factors is the potential benefit for the patient and nursing practice. Investigation of the nurse managers involvement in decision making is important not only to a broader understanding of nurse mangers decision-making involvement , but also to the development of nursing because one characteristics of a profession is that professionals have power over the practice of their discipline which is often referred to as professional autonomy.

The finding of this research has an input for hospital administrators, policy makers and for further studies regarding nurse managers‘ decision making.

# 2. Literature Review

## 2.1 Decision-making by nurse mangers

A cross-sectional Study done in Iran University of Medical Sciences and Health Services showed that participation level of managers (head nurses) in decision making none 10.6%,low 34.0%, moderate 40 .4%, high 10.6% and very high 4.4%. Managers (head-nurses') satisfaction level with participative decision making, none 5.3%,low 28.7%, moderate 55.4%, high 8.5% and very high 2.1% (23).

A descriptive cross-sectional study with a quantitative approach conducted on profile and competencies of nurse managers at accredited hospitals in São Paulo, Brazil indicated that about 76.9% had worked in other roles in the hospital before assuming their position. The study also indicated that about 27.3% did not have previous experience in nursing management, 18.2% had minimum experience and 54.5% the previous professional experience. In the evaluation performed by the nurse managers' superiors concerning their competencies, nurse Managers possess 81.9% decision-making competence (24).

A quantitative, correlational study done on barriers to nurse manager decision-making in Australia indicated that nurses believed they should be able to participate more in decision-making than they currently do. Nurses wanted more decision-making authority, responsibility and control and that there was a discrepancy between the decision-making in which nurses actually participated and those in which they wanted to participate (25).

A descriptive cross-sectional Comparative Study done in Egypt and South Africa showed that the dominant managerial decision making style among head nurses that in Egypt, it illustrated that high percent (81.3%, 68.8%) of head nurses were high authoritarian and democratic leadership

styles respectively. In addition, the majority 87.5% of them were moderate laissez- fair. While, in South Africa an equal value 54.5% were high authoritarian and democratic leadership styles. Similar to Egypt, more than two thirds of head nurses were moderate laissez- fair. Regarding nurses' perceptions regarding decision making autonomy, in Egypt, more than fifty percent (57.1) of the nurses disagreed for independent in autonomy which can be attributed to their limited authority and physician's dominance in decision making process. On the other hand, in KSA the majority (74.4 %) of nurses agreed autonomy decision making (26).

Non-experimental quantitative, cross-sectional, descriptive survey indicated that about 50% of middle managers reported that their work was challenging, 45% reported that their work gave them a chance to gain new skills and knowledge, and fewer than half (41%) reported that their work used all of their skills. Less than 49% of participants reported that they had sufficient access to information from top management regarding the state of the hospital, values, and leadership's goals. Some access to support was evident: 38% reported receiving information about things done well, 52% reported receiving specific comments about things that they could improve, and 57% reported receiving helpful hints or problem-solving advice. The largest percentage of respondents (38%–57%) reported that they lacked access to the support they needed to do their job as managers. Many respondents (36%–38%) reported that they lacked resources to meet their managerial job requirements. Only 36% reported that temporary help was readily available when needed (27).

Cross-sectional study done in Medical Center at Tanta city suggested that many nurse managers receive little or insufficient education and support for the manager role. The study also revealed that nursing leaders did not involve their employees in the decision-making process (28).

### 2.2 Factors associated to decision making by nurse mangers

Study done on nursing participation in hospital decision-making revealed that nurses had considerable power in decisions related to nursing operations yet had less influence in strategic and financial planning decisions. 85% of nurse mangers were moderately or maximally involved in decisions concerning patient care services, 98% preferred that degree of involvement. The study showed nurse executives have not had equal status with other hospital managers with comparable responsibilities. The authority of hospitals rested primarily in the hands of hospital administrators, physicians, and trustees; regulations are formulated by this group without consulting nurses (11).

Qualitative study done in Iranian staff nurses and nurse leaders identified 6 themes or factors that the nurses associated with power. These included having professional knowledge and skills, authority, self-confidence, professional unity, supportive management and organizational structure and culture, viewed as an important factor that affected nurses‘ power and their participation in decisions (29).

A quantitative, correlational study done on barriers to nurse manager decision-making in Australia showed that some factors were restricting participation in decision-making while others were increasing participation. There was a significant positive relationship between professional values and decisions making ($r=O.332$, $p<O.01$). Professional values led to an increased participation in decision-making and a desire to participate further. There was a significant positive relationship between education and decision-making ($r=O.561$, $p<0.01$). Those with higher levels of education wanted to participate more in decision-making. There was also a significant positive relationship between level of appointment and perceived decisions ($r=0.338$, $p<O.O1$). Holding paramedical values was related to decreased participation in decision-making.

There was also a significant negative relationship between area of clinical practice and decision-making, 'r=0.309, p<O.01, with those in surgical areas participating less than those in medical areas (25).

A cross-sectional Study done in Iran University of Medical Sciences and Health Services, results of statistical analysis revealed that only one variable (i.e. the hospital kind) was correlated to the participation level of managers (head-nurses) in decision making (p = 0.05) . Several variables (i.e. sex, educational level and employment type) affect the relation between managers (head-nurses') participation level in decision making. Excluding the variables studied, a statistically significant correlation was observed between the head-nurses' participation level in decision making and their satisfaction level with decision making. In most age groups, there wasn't any statistically significant difference regarding the coefficients of correlation, but a strong and statistically significant correlation was found between the two main variables of the research. Regarding sex, a strong and statistically significant correlation was observed between the managers (head-nurses') participation level in decision making and their satisfaction level in females (p = 0.000, r = 0.647), but this correlation between the two main variables of the research wasn't statistically significant in males (p = 0.173, r = 0.638) (24).

A descriptive cross-sectional Comparative Study done in Egypt and South Africa demonstrated that no statistical significant relationships are existed between nurse‘s demographic characteristics and autonomy to decide (26)

Cross-sectional study done on Nurses managers' decision making styles and it's effect on staff nurses' job performance at Main Assiut University Hospital shows that there is a statistical significant difference as regard to age, level of education (*P*<0.04), and years of experience (*P* <0.004) in nurse managers used decision-making style(30).

A descriptive- analytical study done in Iran Tabriz University of Medical Science showed that

rate of decision making has differed significantly within various age groups (p=0.003). There is statically significant relationship among decision making and nurses‘ age (p=0.003). During several decades of work career, rate of clinical decision making has differed significantly (p=0.025); in other words, the longer rate of work experience a nurse had, the more he/ she has participated in decision making. Regarding education level, the majority portion of studied nurses (97.9%) had Bachelor‘s degree and only (1.1%) of nurses had Master‘s degree and also (1.1%) of them had Associate‘s degree. Participation in decision making has not significantly varied at various educational levels (p=0.39)(31).

Another study concluded that five principles factors influence decision making; internal factors includes variables such as decision maker's physical and emotional state, personal philosophy, interests, experience, knowledge, and risk taking and risk avoidance behavior. And external factors include environmental conditions, time, and resources (32).

Qualitative study done Iranian staff nurses and nurse leaders identified 6 themes or factors that the nurses associated with power. These included having professional knowledge and skills, authority, self-confidence, professional unity, supportive management and organizational structure and culture, was viewed as an important factor that affected nurses‘ power and their participation in decisions (33).

### 2.3 Conceptual framework

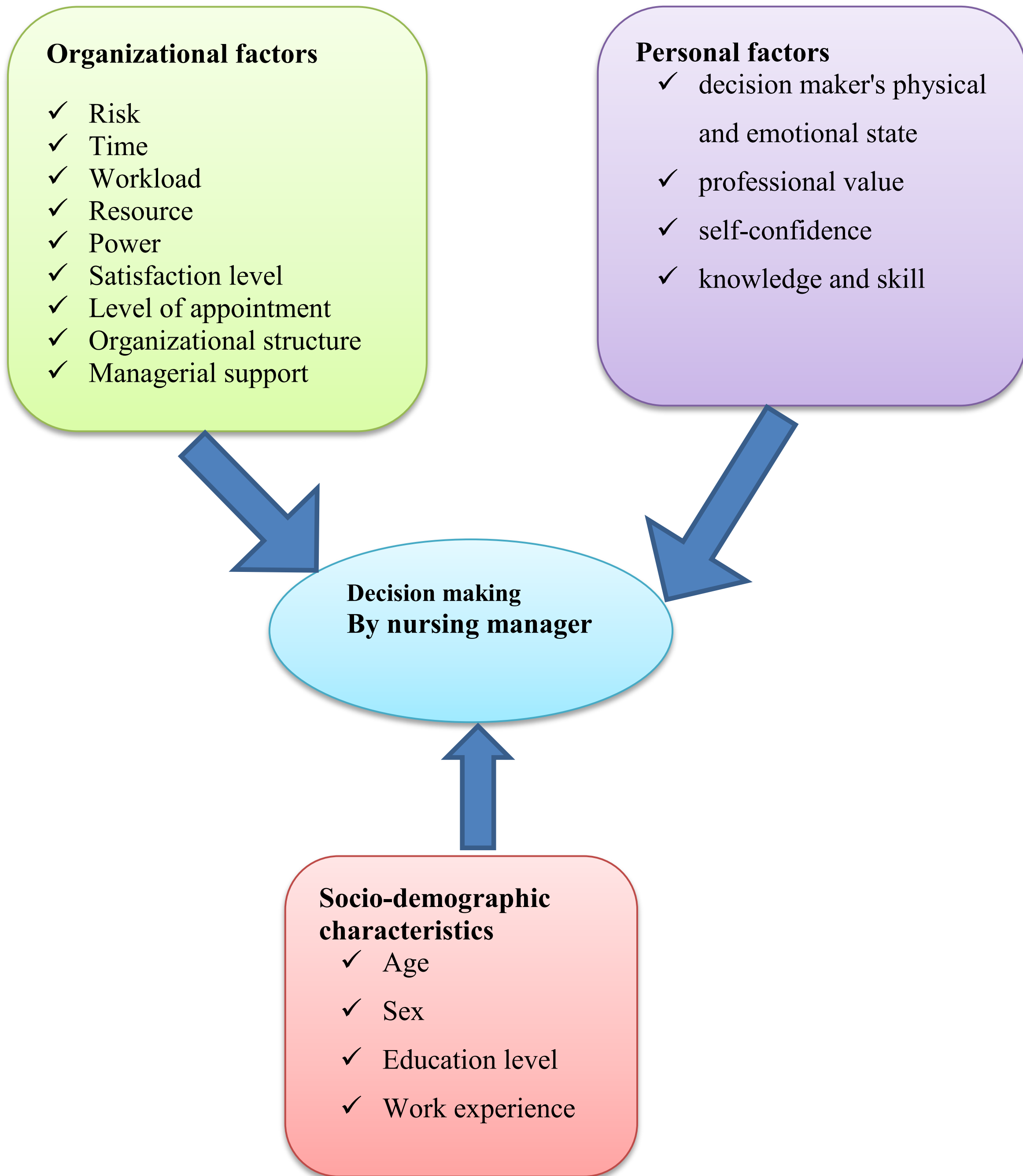


Figure 1: Conceptual framework on managerial decision making involvement and its associated factors among nurse managers
Source – developed by reviewing different literatures (25, 32, 33)

# 3. Objectives

## 3.1 General objective

- ✓ To assess managerial decision making involvement and its associated factors among nurse managers in public hospitals, Tigray, north Ethiopia, in 2015.

## 3.2 Specific objectives

- ✓ To assess managerial decision making involvement of nursing managers
- ✓ To identify factors associated with managerial decision making involvement of nurse managers

# 4. Methods and materials

## 4.1 Study area

This study was conducted in Tigray regional state is located on the north part of Ethiopia and is one of the 9 regional states and city administrations of the country. The total area of Tigray is about 54,569.25 km². Tigray is administratively divided into 7 Zones (one especial Zone, Mekelle).The region's climatic zones are lowland/*kola*/, temperate/*weina dega*/ and highland/*dega*/.. The daily weather condition runs from 11ºc to 23ºc. Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), the Region has an estimated total population of 4,314,456, of whom 2,124,853 are men and 2,189,603 women. According FMOH Health and Health Related Indicators *2005 EFY* the region has 14 general hospital namely Adigrat hospital, Mekelle hospital, St. Marry hospital, Quiha hospital, Sihul hospital, Abiadi hospital, Wukro hospital, korem hospital, Mearig hospital , Humera hospital, Lemlem Karl hospital Maichew,Alamata hospital and Adwa hospital as well as 1 specialized hospital , Ayder referral hospital Mekelle university with total number of 4562 nurses, 97specilist (all type) and 93 General Practitioner**.** The study was conducted from January to June 2015.

## 4.2 Study design

- Institution based cross sectional study design were used

## 4.3 Source of population

- Nursing managers working in all health institutions of Tigray regional state

## 4.4 Study population

- All nursing managers working in the selected hospitals of Tigray regional state

## 4.5 Eligibility criteria

### 4.5.1. Inclusion criteria

- All nursing managers in the selected hospitals with six months and above work experience

### 4.5.2. Exclusion criteria

- All nurse managers with below six months work experience

- All midwives working as head nurse, coordinators and matron

### 4.6 Sample size

The actual sample size for the study was determined using the formula of single population proportion formula for single proportion population.

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

Where n = estimated sample size

$Z\alpha/2$ = Critical value at 95% confidence level of certainty (1.96)

P = prevalence

d = marginal error

To determine the sample size the following assumption was be used.

- ✓ Since there were no previous studies which estimate the participation of nurse mangers in managerial decision making, a prevalence level that estimate maximum sample size (50%) was considered.

- ✓ A 95% confidence level, d (0.05).

$$n= \frac{(1.96)^2 \times 0.5(1 - 0.5)}{(0.05)^2} = 384$$

Since the total number of nurse mangers in selected hospitals is 143, a finite population correction formula was applied.

Therefore, $n_f = \frac{n}{1+n_i/N} = \frac{384}{1+384/143}$

The calculated sample size was 104.

### 4.7 Sampling procedures

Six hospitals were selected randomly out of 15 public hospitals found in Tigray region using lottery method. The sample size was distributed to each hospital proportional to the number of nurse manager in respected hospitals. Then final sample were selected from respected hospitals by simple random sampling techniques (fig 2).

Proportional to size allocation formula

$$= \frac{n_i * n_f}{N}$$

Where $n_i$- number of nurse mangers in hospital

$n_f$ -final sample size of the study

N-total number of nurse mangers in the selected hospitals

Ayder referral hospital $= \frac{35*104}{143} = 25.6 \sim 26$

Mekelle hospital $= \frac{22*103}{143} = 15.8 \sim 16$

Adigrat hospital $= \frac{21*104}{143} = 15.1 \sim 15$

Adwa hospital $= \frac{21*104}{143} = 14.3 \sim 15$

St. Marry hospital $= \frac{22*104}{143} = 15.84 \sim 16$

Lemlem Karl hospital $= \frac{22*104}{143} = 15.8 \sim 16$

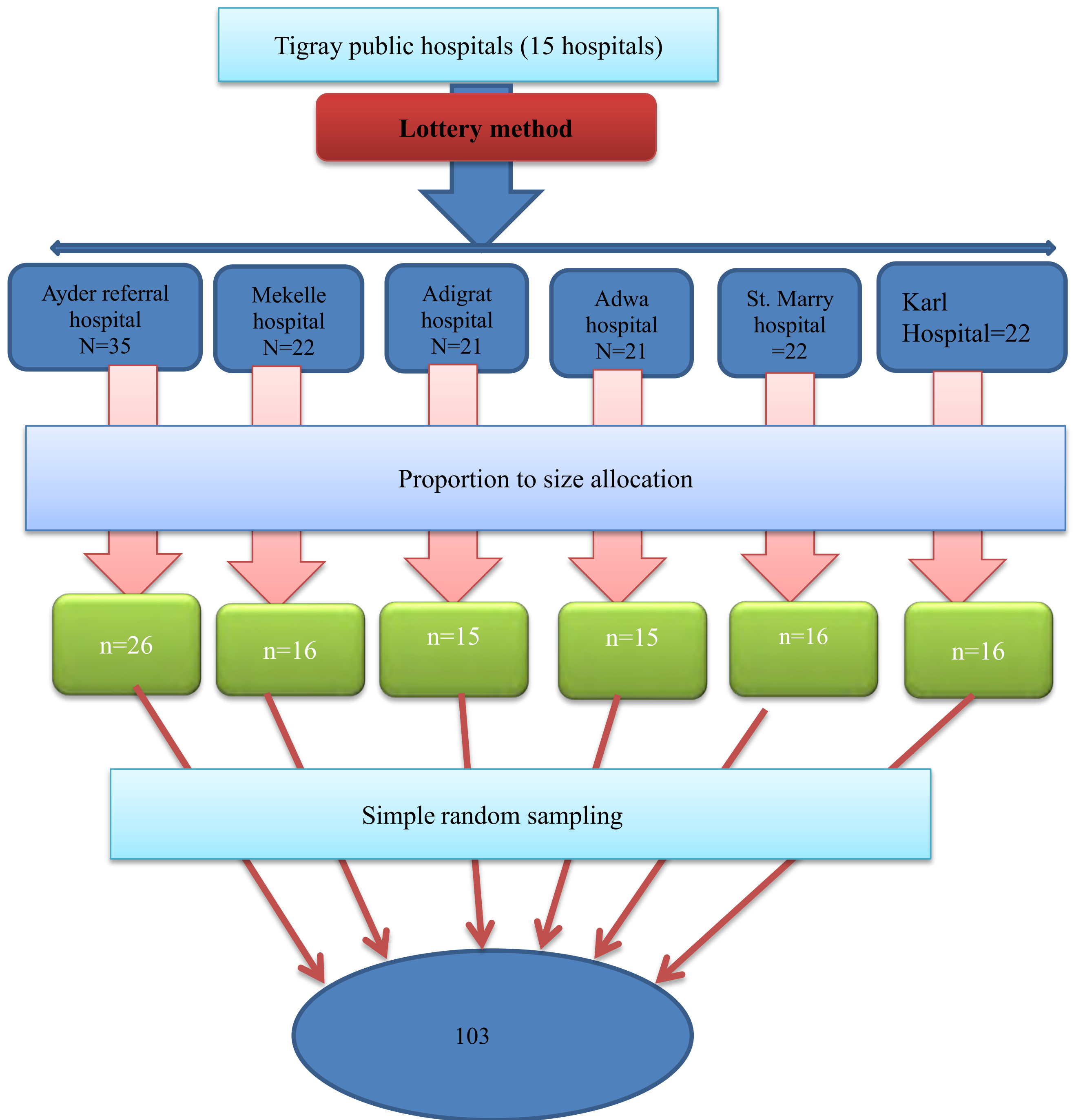


Figure 2. Schematic presentation of sampling procedure on managerial decision making involvement and its associated factors by nurse managers at selected public hospitals

## 4.8 Operational definition

- Nurse Managers: nurses in management level positions in hospitals such as matron, head nurse as well as coordinators
- Coordinator: Serves as facilitator in sub units under the supervision of department head

## 4.9 Data collection tools and process

Self-administered semi structured questionnaire was prepared and designed by reviewing different similar literatures, modified in such a way that can meet the objectives of this study. The questionnaire consist all the variables that directly meet the objective of the study. The questionnaire includes socio-demographic characteristics, decision making as well as it associated factors related to nurse managers was used as a tool for data collection process. Data collection was conducted by the trained six data collectors and two supervisors. Training was given to data collectors and supervisors for one day. Six nurse data collectors and two supervisors were recruited based on previous experience of data collection.

After identifying the study subjects, informed consent was obtained to confirm participants' willingness. Confidentiality was ensured to all of the study subjects.

## 4.10 Variables

### 4.10.1 Dependent variable

- Managerial decision making involvement

### 4.10.2 Independent variables

- Socio-demographic characteristics:
    - Age
    - Sex

    - Education level
    - Work experience ….
  - Personal factors
    - decision maker's physical and emotional state
    - professional value
    - self-confidence
    - knowledge and skill
  - Job related factors
    - Risk
    - Workload
    - Resource
    - Power
    - Satisfaction level
    - Level of appointment
    - Organizational structure
    - Managerial support

### 4.11 Data quality control

In order to assure the quality of data the following measures were undertaken. Validity of the questionnaire was maintained by using questionnaire adopted from different literatures that were used by other researchers. Training was given on the objective of the study, data collection process and relevance of the study to both data collectors and supervisors a week before the commencement of the main research for one day. Pre-test was done on 10% of the sample Wukro

hospital. The principal investigator and supervisors was actively involved in supervision of the data collection and the completed questionnaire was cross checked daily for inconsistencies.

Throughout the course of the data collection, data collectors was supervised at each site, regular meetings was held between the data collectors, supervisors and the principal investigator in which problematic issues arising in data collection was discussed and decisions were reached. Two more additional visits have made if a respondent couldn‘t be found in the first visit. The collected data were reviewed and checked for completeness before data entry; the incomplete were discarded from the study.

### 4.12 Data processing and analysis

The collected data were checked for completeness, inconsistencies, and then data was coded, entered and cleaned using SPSS Version 20.0 statistical software package for analysis. Descriptive statistics tables and frequency were used to present the information. To see the association, strength and the direction of association logistic regression analysis were computed. Odds Ratio (OR) and 95% CI were calculated for each independent variable against the dependent variables using binary logistic regression for testing the strengths of the associations with its statistical significance.

Finally, multivariate analysis was employed using multivariate logistic regression. Categorical variables having significant association in the adjusted odds ratio were considered as associated factor with the outcome variables managerial decision making involvement. Significance was obtained at Odds ratio with 95% CI and $p< 0.05$

### 4.13 Ethical consideration

Ethical clearance and approval was obtained from of Addis Ababa University, College of Health Science, School of Allied Health Sciences, Department of Nursing and Midwifery. Following the

approval, Official letter of co-operation was written to selected hospitals from Department of Nursing and Midwifery of AAU.

Only those who were interested and willing to do so were participated in study. Confidentiality was kept in place and personal identification like name of the respondent was not asked. Information sheets and consent forms was provided to each participant.

### 4.15. Dissemination of the result

The result of the study will be submitted to Addis Ababa University, college of health sciences school of allied health sciences department of nursing and midwifery. The study findings will also be disseminated to TRHB and selected hospitals. The result will also be disseminated through publication in scientific journals and will be presented in different conferences and workshops.

# 5. Results

## 5.1. Socio-demographic characteristics

From the total study participants, a total of 103 nurse managers of six public hospitals; named as: Ayder referral hospital, Mekelle hospital, Adigrat hospital, Adwa hospital, St Marry hospital and Lemlem Karl hospital were participated in the study with a total response rate of 99%. Of the total study participant‘s more than half 53 (51.3%) of them were males. Most , 95(92.2%) of them were Orthodox followers. About 62 (60.2%) of them were married. Out of the total study participants 83(80.6%) were BSc in their educational status. Regarding the type nurse manger 75 (72.8%) of them were head nurses. About 36 (35 %) of the respondents were between the age group of 26-30 years. Out of the study participants 41(39.8%) of them are with 6-10 years‘ work experience. About 26 (25.2%) of them work at Ayder referral hospital. Among the total respondents 48 (46.6%) of them get monthly salary of 3148 to 4725 Birr. 13 (12.6%) of them are work in medical ward (table 1).

Table 1 Socio-demographic characteristics of nurse mangers at selected public hospitals

| Variables | Frequency | Percentage |
|---|---|---|
| **Gender** | | |
| Male | 53 | 51.5 |
| Female | 50 | 48.5 |
| Total | 103 | 100 |
| **Age** | | |
| 20-25 | 5 | 4.9 |
| 26-30 | 36 | 35 |
| 31-35 | 18 | 17 |
| 36-36 | 23 | 22.3 |
| 40-45 | 10 | 9.7 |
| ≥46 | 11 | 10.7 |
| Total | 103 | 100 |
| **Hospital** | | |
| Ayder referral hospital | 26 | 25.2 |
| Mekelle hospital | 16 | 15.5 |
| Adwa hospital | 15 | 14.6 |
| St.marry hospital | 16 | 15.5 |
| Adigrat hospital | 15 | 14.6 |
| Lemlem karl hospital | 15 | 14.6 |
| Total | 103 | 100 |
| **Experience (years)** | | |
| 6 month-5 years | 22 | 21.4 |
| 6-10 years | 41 | 39.8 |
| 11-15 years | 15 | 14.6 |
| 16-20 years | 9 | 8.7 |
| ≥21 years | 16 | 15.5 |
| Total | 103 | 100 |
| **Monthly income (Birr)*** | | |
| 1663-2618 | 10 | 9.7 |
| 2619-3147 | 16 | 15.5 |
| 3148-4725 | 48 | 46.6 |
| ≥4825 | 29 | 28.2 |
| Total | 103 | 100 |
| **Religion** | | |
| Orthodox | 95 | 92.2 |
| Muslim | 7 | 6.8 |
| Protestant | 1 | 1 |

| | | |
|---|---|---|
| Total | 103 | 100 |
| **Ethnicity** | | |
| Amara | 3 | 2.9 |
| Tigraway | 100 | 97.1 |
| Total | 103 | 100 |
| **Marital status** | | |
| Single | 37 | 35.9 |
| Married | 62 | 60.2 |
| Divorced | 4 | 3.9 |
| Total | 103 | 100 |
| **Educational status** | | |
| Diploma | 19 | 18.4 |
| BSc | 83 | 80.6 |
| MSc | 1 | 1 |
| Total | 103 | 100 |
| **Current position** | | |
| Head nurse | 75 | 72.8 |
| Matron | 6 | 5.8 |
| Coordinator | 22 | 21.4 |
| Total | 103 | 100 |
| **Place of work** | | |
| Medical ward | 13 | 12.6 |
| Surgical ward | 13 | 12.6 |
| Pediatric ward | 11 | 10.7 |
| Obstetric ward | 12 | 11.7 |
| OPD | 12 | 11.7 |
| OR | 8 | 7.8 |
| Ophthalmic clinic | 4 | 3.9 |
| Dental clinic | 3 | 2.9 |
| Psychiatric clinic | 5 | 4.9 |
| Matron | 6 | 5.8 |
| ART clinic | 6 | 5.8 |
| ICU | 4 | 3.9 |
| Others | 6 | 5.8 |
| Total | 103 | 100 |

*New nurse governmental monthly salary

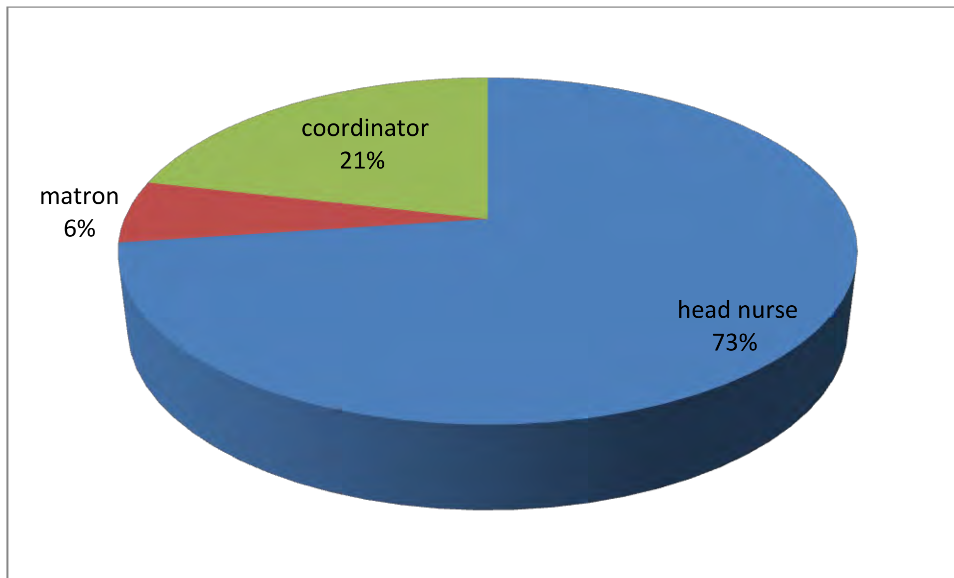


Figure 3 Current position of respondents

## 5.2: Training and experience of the respondents

Majority of the study participants, 81(78.6%) had worked in other roles in the hospital before assuming their current position. The study also revealed that about 51(49.5%) of them did not have previous experience in nursing management. About 82(79.6%) of them didn‘t take training. Of the respondents 59(57.3%) of them they get sufficient information from top management regarding the state of the hospital, values, and management‘s goals (table 2).

Table 2 Training and experience of nurse mangers at selected public hospitals

| Variables | Frequency | Percentage |
|---|---|---|
| **Work in other role before current position** | | |
| No | 22 | 21.4 |
| Yes | 81 | 78.6 |
| Total | 103 | 100 |
| **Previous experience in nursing management** | | |
| No | 51 | 49.5 |
| Yes | 52 | 50.5 |
| Total | 103 | |
| **Training about managerial decision making process** | | |
| No | 82 | 79.6 |
| Yes | 21 | 20.4 |
| Total | 103 | 100 |
| **Sufficient access to information from top management** | | |
| No | 44 | 42.7 |
| Yes | 59 | 57.3 |
| Total | 103 | 100 |

### 5.3 Managerial decision making involvement

Of the total respondents majority, 71(68.9%) of them didn't involve for managerial decision making. About 86(83.5%) of them reported that autonomy in managerial decision making is necessary. The study also showed about 54(52.4%) of nurse managers have not had equal status with other hospital managers with comparable responsibilities. About 58(56.3%) of them were consulted for regulation in hospital. About 50(48.5%) nurse managers stated that authority of hospitals rests primarily in the hands of chief executive officers relative to nurse mangers. 43(41.7%) of them stated that low level on managerial decision making. About 18(17.5%) of them were not satisfied on participation decision making process. About 72 (69.9%) of them believed that they should be able to participate more in managerial decision-making than they currently do. About 69(67%) of them receive feedback about they done well. Of the respondents 84(81.6%) of them involve their peers in the decision-making process. About 76(73.8%) of had considerable power in decisions related to nursing activities. The involvement of nurse mangers in managerial decision making is about 31.1%. (Table 3).

Table 3 Managerial decision making involvement of nurse mangers at selected public hospitals

| Variables | Frequency | Percentage |
|---|---|---|
| **Autonomy in decision making is necessary** | | |
| No | 17 | 16.5 |
| Yes | 86 | 83.5 |
| Total | 103 | 100 |
| **Authority in decision making of hospitals rests primarily relative nurse mangers** | | |
| CEO | 50 | 48.5 |
| Physicians | 32 | 31.1 |
| Board of hospitals | 17 | 16.5 |
| Others | 4 | 3.9 |
| Total | 103 | 100 |
| **Consulted when regulation are formulated in their hospital** | | |
| No | 45 | 43.7 |
| Yes | 58 | 56.3 |
| Total | 103 | 100 |
| **Equal status with other hospital managers with comparable responsibilities** | | |
| No | 54 | 52.4 |
| Yes | 49 | 47.6 |
| Total | 103 | 100 |
| **involve other nurse under supervision in the decision-making process** | | |
| No | 19 | 18.4 |
| Yes | 84 | 81.6 |
| Total | 103 | 100 |
| **power in decisions related to nursing activities** | | |
| No | 27 | 26.2 |
| Yes | 76 | 73.8 |
| Total | 103 | 100 |
| **power in strategic and financial planning decision in your hospital** | | |
| No | 72 | 26.2 |
| Yes | 31 | 69.9 |
| Total | 103 | 100 |
| **Involved in making managerial decision** | | |

| **making** | | |
|---|---|---|
| No | 32 | 31.1 |
| Yes | 71 | 68.9 |
| Total | 103 | 100 |

Regarding managerial decision making style the study showed that dominant managerial decision making style were high authoritarian 66(64.1%) and moderate laissez- fair decision making style 42(40.8%) (Table 4).

Table 4 Managerial decision making style of nurse mangers at selected public hospitals

| **Variables** | **Response** | | **Percentage of response** |
|---|---|---|---|
| | Frequency | percentage | |
| Authoritarian moderate DM style | 66 | 26.7% | 64.1% |
| Authoritarian high DM style | 8 | 3.2% | 7.8% |
| Democratic moderate DM style | 31 | 12.6% | 30.1% |
| Democratic high DM style | 40 | 16.2% | 38.8% |
| Democratic very high DM style | 32 | 13.0% | 31.1% |
| Laisser-faire moderate DM style | 43 | 17.4% | 41.7% |
| laisser-faire high DM style | 25 | 10.2% | 24.3% |
| laisser-faire very high DM style | 2 | 0.8% | 1.9% |

*Multiple response frequency

### 5.4. Reasons for not involved in managerial decision making

**Organizational Factor**. About 81(78.6%), 78(75.7%) and 67(65%) nurse mangers mentioned that lack of power, poor organizational structure and low level of appointment as main organizational factors for not involved in managerial decision making respectively (table 5)

**Table 5** organizational factors reasons for not involved in managerial for decision making at selected public hospital

| Variables | Response | | Percentage of cases |
|---|---|---|---|
| | Frequency | percentage | |
| Lack of Power | 81 | 11.5% | 78.6% |
| poor organization structure | 78 | 11.1% | 75.7% |
| Low Level of appointment | 67 | 9.5% | 65.0% |
| Poor Managerial support | 63 | 9.0% | 61.2% |
| Lack of recognition and rewards | 55 | 7.8% | 53.4% |
| Fearing of risk | 59 | 8.4% | 57.3% |
| Low satisfaction level | 49 | 7.0% | 47.6% |
| Workload | 44 | 6.3% | 42.7% |
| Lack of resource | 39 | 5.5% | 37.9% |

*Multiple response frequency

**Personal Factors** Of the respondents 56(54.4%) mentioned that poor knowledge and skill and 52(50.2%) poor professional value as main personal factors for not involved in managerial decision making (table 6).

Table 6 personal factors reasons for not involved in managerial decision making at selected public

| Variables | Response | | Percentage of cases |
|---|---|---|---|
| | Frequency | percentage | |
| Poor knowledge and skill | 56 | 8.0% | 54.4% |
| Poor professional value | 52 | 7.4% | 50.5% |
| Lack self-confidence | 39 | 5.5% | 37.9% |
| Poor physical and emotional state | 21 | 3.0% | 20.4% |

*Multiple response frequency

## 5.5. Factors associated with involved in managerial decision making

### 5.5.1 Socio-demographic factors

**Bivariate analysis**

Bivariate logistic regression analysis showed that the common socio demographic characteristics religion, ethnicity, age, experience, gender, educational status, position, monthly salary, and marital status were not found to be significantly associated with the involvement of nurse mangers in managerial decision making (Table 7).

Bivariate analysis on place of work showed that those nurse mangers who were working in surgical ward 10.28 times more likely to be involved in managerial decision making than those working in medical ward :[AOR =10.28 (95%CI: 1.01-103.98)]. Those nurse mangers who were working in ICU 36 times more likely to be involved in managerial decision making than those working in medical ward :[AOR =36 (95%CI: 1.71 -759.78)].(Table 7)

**Multivariate analysis**

The multivariate analysis on place of work showed that those nurse mangers who were working in surgical ward 15.74 times likely to be involved in managerial decision making than those working in medical ward:[AOR =15.74 (95%CI: 1.32-186.99)].

Those nurse mangers who were working in ICU were 86.6 times more likely to be involved in managerial decision making than those working in medical ward :[AOR =86.6 (95%CI: 2.71 - 2764.78)]. Multivariate analysis also showed that matrons were 18.61 times more likely to be involved in managerial decision making than head nurse: [ AOR= 18.61 (95CI%:1.03-335.41)] (Table 7)

Table 7 Association of managerial decision making involvement and socio-demographic characteristics among nurse managers at selected public hospitals

| Variables | Involved in managerial decision making | | COR (95%CI) | AOR (95%CI) | p-value |
|---|---|---|---|---|---|
| | No | Yes | | | |
| **Hospital** | | | | | |
| Ayder | 18 | 8 | 1* | | |
| Mekelle | 13 | 3 | 0.519(0.11-2.34) | | |
| Adwa | 9 | 6 | 1.5(0.39-5.65) | | |
| St.marry | 10 | 6 | 1.35(0.36-5) | | |
| Adigrat | 11 | 4 | 0.818(0.19-3.36) | | |
| Lemlem | 10 | 5 | 1.12(0.28-4.37) | | |
| **Gender** | | | | | |
| Male | 36 | 14 | 1* | | |
| Female | 35 | 18 | 0.756(0.32-1.75) | | |
| **Age** | | | | | |
| 20-25 | 4 | 1 | 1* | 1* | |
| 26-30 | 28 | 8 | 0.910(0.11-11.72) | 1.28(0.74-22.42) | 0.86 |
| 36-36 | 12 | 11 | 3.66(0.35-38.2) | 3.86(0.12-120.05) | 0.78 |
| 40-45 | 7 | 3 | 1.71(0.131-22.51) | 1.46(0.02-88.52) | 0.85 |
| ⩾46 | 8 | 3 | 1.5(0.11-11.43) | 0.59(0.1-42.17) | 0.81 |
| **Experience (years)** | | | | | |
| 6month-5 | 16 | 6 | 1* | 1* | |
| 6-10 | 31 | 10 | 0.86(0.26-2.79) | 0.3(0.04-1.98) | 0.21 |
| 11-15 | 8 | 7 | 2.33(0.58-9) | 0.72(0.05- 9.27) | 0.8 |
| 16-20 | 6 | 3 | 1.33(0.25-7.1) | 0.76(0.02-22.01) | 0.87 |
| ⩾21 | 10 | 6 | 1.6(0.4-6.36) | 1.47(0.05-36.82) | 0.81 |
| **Monthly salary (Birr)** | | | | | |
| 1663-2618 | 8 | 2 | 1* | | |
| 2619-3147 | 10 | 6 | 2.4(0.37-15) | | |
| 3148-4725 | 32 | 1 | 2(0.38-10.53) | | |
| ≥4825 | 21 | 8 | 1.52(0.265-8.77) | | |
| **Religion** | | | | | |
| Orthodox | 65 | 30 | 1* | | |
| Muslim | 5 | 2 | 0.86(0.15-4.72) | | |
| **Marital status** | | | | | |
| Married | 41 | 21 | 1* | | |
| Single | 26 | 11 | 0.82(0.34-1.99) | | |

| | | | | | |
|---|---|---|---|---|---|
| **Educational status** | | | | | |
| Diploma | 14 | 5 | 1* | | |
| Degree | 57 | 26 | 1.22(0.41-3.92) | | |
| **Current position** | | | | | |
| Head nurse | 51 | 24 | 1* | 1* | |
| Matron | 2 | 4 | 0.472(0.72-24.83) | 18.61(1.03-335.41)** | 0.03 |
| **Place of work** | | | | | |
| Medical ward | 12 | 1 | 1* | 1* | |
| Surgical ward | 7 | 6 | 10.28(1.01-103.98) | 15.74(1.32-186.99)** | 0.02 |
| Pediatric ward | 9 | 2 | 2.66(0.2-34.19) | 2.71(0.1-41.62) | 0.47 |
| Obstetric ward | 9 | 3 | 4(0.35-45) | 5.65(0.42-79.53) | 0.19 |
| OPD | 4 | 4 | 6(0.56-65.98) | 3.66(0.28-46.85) | 0.31 |
| OR | 6 | 2 | 4(0.29-53.46) | 5.40(0.33-87.18) | 0.23 |
| Ophthalmic clinic | 2 | 2 | 12(0.7-203.13) | 12.48(.57-273.27) | 0.99 |
| Psychiatric clinic | 4 | 1 | 3(0.15-59.89) | 4.18(0.17-102.06) | 0.1 |
| ART clinic | 4 | 2 | 6(0.42-85.24) | 8.99(0.47-171.88) | 0.38 |
| ICU | 1 | 3 | 36(1.71-759.79) | 86.6(2.71-2764.75)** | 0.01 |
| Others | 4 | 2 | 6(0.42-85.24) | 7.08(0.42-121.69) | 0.17 |

AOR=Adjusted odds ratio

COR=Crude odds ratio

*1.00 indicates the reference group

** Statistically significant, P<0.05

### 5.5.2 Organizational and personal factors

Bivariate binary logistic regression analysis showed that power, recognition and reward, workload, lack of resource, satisfaction level, organizational structure and managerial support were not found to be significantly associated with the involvement of nurse mangers in managerial decision making (Table 8).

The multivariate analysis on level appointment the odds of involvement of decision making among the respondents who said ‗yes' for low level of appointment were: 52% lower than the odds of the respondents who said ‗no' for low level of appointment: [AOR=0.48 (95% CI: (0.19-0.87] (Table 8).

The multivariate analysis on knowledge and skill the odds of involvement of decision making among the respondents who had poor knowledge and skill were 71% lower than the odds of the respondents who hadn't poor knowledge and skill towards decision making: [AOR = 0.39( 95% CI (0.14-0.78)].(table 9)

Table 8 Association of managerial decision making involvement and organizational and personal factors among nurse managers

| Variables | Involved in managerial decision making No | Yes | COR (95%CI) | AOR (95%CI) | p-value |
|---|---|---|---|---|---|
| Fearing of risk | | | | | |
| No | 24 | 9 | 1* | | |
| Yes | 47 | 23 | 0.4(0.52—3.25) | | |
| Workload | | | | | |
| No | 42 | 17 | 1* | | |
| Yes | 29 | 15 | 1.27(0.55-2.96) | | |
| Lack of resource | | | | | |
| No | 43 | 21 | 1* | | |
| Yes | 28 | 11 | 0.8(0.33-1.92) | | |
| Low satisfaction level | | | | | |
| No | 35 | 19 | 1* | | |
| Yes | 36 | 13 | 0.66(0.28-1.54) | | |
| Poor organizational structure | | | | | |
| No | 19 | 6 | 1* | | |
| Yes | 52 | 26 | 1.58(0.56-4.44) | | |
| Poor managerial support | | | | | |
| No | 26 | 14 | 1* | | |
| Yes | 45 | 18 | 0.74(0.31-1.73) | | |
| Lack of Power | | | | | |
| No | 18 | 4 | 1* | 1 | |
| Yes | 53 | 28 | 2.37(0.73-7.7) | 1.13(0.24-5.2) | 0.14 |
| Low Level of appointment | | | | | |
| No | 34 | 19 | 1* | 1 | |
| Yes | 37 | 13 | 0.62(0.27-0.92) | **0.48(0.19—0.87)*** | 0.03 |
| Lack of recognition and rewards | | | | | |
| No | 36 | 12 | 1* | 1 | |
| Yes | 35 | 20 | 1.71(0.73-4.02) | 2.15(0.76-6.04) | 0.12 |

| | | | | | |
|---|---|---|---|---|---|
| Poor physical and emotional state | | | | | |
| No | 31 | 15 | 1* | | |
| Yes | 41 | 17 | 0.87(0.34-2.03) | | |
| Poor professional value | | | | | |
| No | 42 | 9 | 1* | 1* | |
| Yes | 29 | 23 | 3.37(1.49-9.14) | 1.99(0.67-5.44) | 0.06 |
| Lack self-confidence | | | | | |
| No | 49 | 15 | 1* | 1* | |
| Yes | 22 | 17 | 2.54(1.07-5.94) | 0.98(0.33-2.87) | 0.16 |
| Poor knowledge and skill | | | | | |
| No | 23 | 14 | 1* | 18 | |
| Yes | 48 | 18 | 0.61(0.62-0.46) | **0.39(0.14-0.78)**** | **0.05** |

AOR=Adjusted odds ratio

COR=Crude odds ratio

*1.00 indicates the reference group

** Statistically significant, P<0.05

# 6. Discussion

The study was trying to address issues related to decision making by nurse manager and associated factors.

Effective nursing management and leadership are essential for the provision of desired patient care that will contribute to the improvement of any country‘s health indicators. The nurse manager is the key individual whose leadership can directly influence functions of the nursing service department and ensure that desired quality of nursing services is achieved (4).

The total response rate of this study is 99%.

Of the total respondents 68.9% of them were not involved in managerial decision making. This was higher than study done in Iran, where 10.6% not involved in decision making (23).This may be due to socio-economic and methodological differences

About 78.6% mentioned that they didn‘t possess power to make a managerial decision. Of the respondents 54%, 52 % mentioned that poor knowledge and skill and poor professional value respectively as main personal reasons for not involved in managerial decision making. This study were supported by a qualitative study done in Iranian staff nurses and nurse leaders identified and strengths this result 6 themes or factors that the nurses associated with power. These included having professional knowledge and skills, authority, self-confidence, professional unity, supportive management and organizational structure and culture, viewed as an important factor that affected nurses‘ power and their participation in decisions (29).

Reasons for not involved in decision making were also similar with a study concluded that five principles factors influence decision making; internal factors includes as decision maker's personal philosophy, physical and emotional state, interests, experience, knowledge, and risk taking and risk avoidance behavior (32).

Another finding were about 78.6% of the respondents had worked in other roles in the hospital before assuming their current position. This finding were consistent with a descriptive, quantitative cross-sectional study conducted on profile and competencies of nurse managers at accredited hospitals in Sao Paulo, Brazil indicated that about 76.9% had worked in other roles in the hospital before assuming their position(23).

Another finding of this study were about 49.5% of them did not have previous experience in nursing management. Our study found higher compare to study done at Brazil, Sao Paulo hospital, in which indicated that about 27.3% did not have previous experience in nursing management (24). This gap may be our study was conducted on different selected public hospitals with different individuals with their different experience; on the other hand the study done at Brazil, Sao Paulo hospital was only done at a single hospital which seems difficult to generalize the result.

About 79.6% of them didn‘t take training. Similar information were gathered from a cross-sectional study done in Medical Center at Tanta city suggested that many nurse managers receive little or insufficient education, support and training for the manager role (28).

This study also reveals about 83.5% of them reported that autonomy in managerial decision making is necessary. The study also showed that about 52.4% nurse managers have not had equal status with other hospital managers with comparable responsibilities. This result is consistent with a result showed as nurse executives have not had equal status with other hospital managers with comparable responsibilities (11).

About 56.3% of them consulted when regulation were formulated in hospital. About 48.5% nurse managers revealed that authority of hospitals rests primarily in the hands of chief executive officers as compared to them. This result is similar with the authority of hospitals rested primarily in the hands of hospital administrators and physician (11). This indicates majority of the

authority is controlled by other authorities without consulting nurse managers in which further strengths the factor for low decision making process.

About 69.9% of them believed they should be able to participate more in managerial decision-making than they currently do. This result were consistent with a quantitative study done on barriers to nurse manager decision-making in Australia indicated that nurses believed they should be able to participate more in decision-making than they currently do (25).

About 67% of them get feedback related to things they done well. About 57.3% of the participants had sufficient access to information from top management regarding the state of the hospital. This result is similar with a study result showed around 49% of participants reported that they had sufficient access to information from top management regarding the state of the hospital, values, and leadership‘s goals (27).

Other important finding of this study, 81.6% nurse mangers involve their peer in the decision-making process. On the contrary other study indicates nursing leaders did not involve their employees in the decision-making process (28).

This study also showed that more than half, 64.1% of them used high authoritarian managerial decision making style. This finding were found to be similar with a cross-sectional Comparative Study done in South Africa showed that the dominant managerial decision making style were 68.8% of head nurses were high authoritarian leadership styles(26)

Another finding based on the analysis using binary logistic regression the variable of socio demographic characteristics religion, ethnicity, age, experience, gender, position, educational status , monthly salary , and marital status were statistically insignificant with the outcome variable involvement of managerial decision making . This is congruent with a descriptive cross-sectional Comparative Study done in Egypt and South Africa demonstrated that no statistical significant relationships are existed between nurse‘s demographic characteristics and autonomy

to decide (26).

Multivariate logistic regression analysis was done to assess associated factors for the involvement managerial decision making by nurses. Accordingly, the significant variables were: working in surgical ward and ICU with a reference of working at medical ward. Respondents who were matron with reference of head nurse and respondents who had poor knowledge and skill, respondents who said ‗yes' for low level of appointment were the significant variables.

Another finding were the odds of involvement of decision making among the respondents who were Matron were 18.61 times the odds of the respondents who were head nurse:[ AOR=18.61 95% CI (1.03-335.41)]. On contrary a finding on cross sectional study done in Iran university of medical sciences health services showed that, a statistically significant correlation was observed between the head-nurses' participation level in decision making and their satisfaction level with decision making .Iran head nurse more involved in decision making but in our study head nurse is influenced by matron since head nurse under supervision of matron

The odds of involvement of decision making among the respondents who said ‗yes' for low level of appointment were: 2 times lower than the odds of the respondents who said ‗no' for low level of appointment: [AOR=0.48 (95% CI: (0.19-0.87].Similar finding was reported from a qualitative study done in Iranian staff nurses and nurse leaders identified having professional knowledge and skills, authority, self-confidence, affected nurses' power and their participation in decisions(29).

The odds of involvement of decision making among the respondents who had poor knowledge and skill were 2.56 lower than the odds of the respondents who hadn't poor knowledge and skill towards decision making: [AOR = 0.39( 95% CI (0.14-0.78)].This is also similar with other study, in which indicates significant positive relationship between level of appointment and perceived decisions (p<O.O1) (25).

## Strength and limitation of the study

### Strength of the study

- ✓ Unlike other similar study's others nurse mangers like matron and coordinators beside head nurse was included in the study
- ✓ High response response rate

### Limitation of the study

- ✓ Lack of adequate similar studies to make more comparative discussion.
- ✓ Like any cross-sectional study it is difficult to know whether determinant or outcome occurred first.
- ✓ Includes public hospitals only.

## 7. Conclusion and recommendations

### 7.1 Conclusion

- Majority respondents were not involved in managerial decision making.
- Majority of them mentioned that they didn‘t have accepted power to make a decision (organizational factors), low satisfaction and poor knowledge and skill (personal factors) considered as the main reasons to hinder them in decision making.
- Nearly half of them did not have previous experience in nursing management.
- Majority of them didn‘t take training related managerial decision making.
- Nearly half of them revealed that authority of hospitals rests primarily in the hands of chief executive officers.
- More than half of them believed they need to participate more in managerial decision-making than they currently do.
- Majority of the respondents involve their employees in the decision-making process.
- In general the significant variables were: working in surgical ward and ICU with a reference of working at medical ward. Respondents who were matron with reference of head nurse and respondents who had poor knowledge and skill, respondents who said _yes‘ for low level of appointment were the significant variables.

### 7.2 Recommendations

- Efforts of MOH, RHB, and administrators of the hospitals may be needed to improve managerial decision making of nurse managers and use their power regularly
- Each hospitals regulation needs to consider previous experience regarding to managerial decision making before selection of individuals as leaders
- The MOH may be required to prepare training regarding to managerial decision making

before selecting individuals, this increases confidence and their work will not be challenging to them

- Structures of each hospital needs to be revised in which authority, issues, activities and decision makings regarding nurses in the hospitals need to incorporate and consulted nurse managers.
- The MOE should open master in  nursing leadership and management

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## Annex

### Annex I: Questionnaire

**Addis Ababa University, College of Health Sciences, School of Allied Health Sciences, Department of Nursing and Midwifery**

A research questionnaire on managerial decision making involvement and its associated factors by nurse managers in selected public hospitals, Tigray, north Ethiopia, 2015.

**Name of principal investigator**: Desta Siyoum (BSc in Nursing)

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**Address**: Addis Ababa**,** Ethiopia

**Tell No**: ______________________

**I. Information sheet**

Good morning/afternoon, my name is ------------------------------------ I am working on behalf of research study, which is conducted by Desta Siyoum, he came from Addis Ababa University, College of Health Sciences, School of Allied Health Sciences, Department of Nursing and Midwifery and he has permission from the university and this hospital. The reason why he came here is to conduct a research on managerial decision making involvement and its associated factors by nurse managers in this hospital. The purpose of this study is to assess decision making and its associated factors by nurse managers in selected public hospitals, your participation is very important to the outcome of the study. If so, you would like to participate on this self-administer questionnaire. This may take 30 minutes. All the information that you are going to provide me will remain confidential and you don‘t need to mention your name. For this reason, I kindly request you to give me your sincere and truthful answer. All this is completely on voluntary bases and you have the right to refuse from participation. Participation or non-participation and refusal to answer questions will have no effect on your life. If you have further questions or would like to know the results of this study, please feel free to contact the principal investigator; with the following address.

Desta Siyoum Belay

Cell phone: +251 -912692285

**E-mail:** **destasiyoum33@yahoo.com**

**II. Consent form**

I have read all the process and the objective of the study and I have understood the same as written that includes informed about the purpose, advantage, and disadvantage of this study titled decision making and its associated factors by nurse managers in public hospitals**.** I also understood that the research imposes no risk and no composition would be provided to me and my family. I have been told that if I fill discomfort to respond to any of the question, I fill free to drop it any time I wish to do so. I have understood the information given and the participation is completely voluntary based. I have been told that my answers to the questions will not be given to anyone and not expect to write my name. Now I am giving my consent to participate in the study voluntarily.

Could I have your permission to continue?

1. Yes
2. No, Stop

Witness: Signature___________ Date ____________

**Data collector:**

Name___________________ Signature______ Date__________________

Result: 1. Questionnaire completed _________

2. Questionnaire partially completed ________________

3. Participant refused ____________

4. Others (please Specify) ___________

**Checked by Supervisor:** Name _________________ Supervisor's Signature _____________

Date _______________

III. Questionnaire

**Part I. Socio demographic characteristics**

| S.no. | Question | Response | Skip |
|---|---|---|---|
| 101 | Sex | 1. Male<br>2. Female | |
| 102 | Age | __________years | |
| 103 | Religion | 1. Orthodox<br>2. Muslim<br>3. Catholic<br>4. Protestant<br>5. Others(specify)____________ | |
| 104 | Ethnicity | 1. Amara<br>2. Oromo<br>3. Tigraway<br>4. if others specify______________ | |
| 105 | Marital status | 1. Married<br>2. Single<br>3. Divorced<br>4. Cohabitated<br>5. if others specify______________ | |
| 105 | Education status | 1. Diploma<br>2. Degree<br>3. Master<br>4. if others specify______ | |

| 106 | Year of experience | ________________months/years | |
|---|---|---|---|
| 107 | Salary monthly | _____________birr | |
| 108 | Place of work | 1. Medical ward<br>2. Surgical ward<br>3. Pediatrics ward<br>4. Obstetrics and gynecology ward<br>5. OPD<br>6. OR<br>7. Ophthalmic clinic<br>8. Dental<br>9. Psychiatric clinic<br>10. Matron<br>11. ART clinic<br>12. ICU<br>13. Others(specify) | |
| 109 | Position that have currently working | 1. Head nurse<br>2. Matron<br>3. Coordinator<br>4. Others(specify)____________ | |

| **Part II. Decision making by nurses mangers** | | | |
|---|---|---|---|
| 201 | Did you worked in other roles in the hospital before assuming your current position | 1. No<br>2. Yes | |
| 202 | Do you have previous experience in nursing management | 1. No | |

| | | | |
|---|---|---|---|
| | before your current position | 2. Yes | |
| 203 | Autonomy in managerial decision making is necessary | 1. No<br>2. Yes | |
| 204 | Your Participation level in managerial decision making your hospital | 1. none<br>2. low<br>3. moderate<br>4. high<br>5. very high | |
| 205 | Your satisfaction level in managerial decision making your hospital | 1. none<br>2. low<br>3. moderate<br>4. high<br>5. very high | |
| 206 | Do you believe that you should be able to participate more in managerial decision-making than you currently do in your hospital? | 1. No<br>2. Yes | |
| 207 | Do you have sufficient access to information from top management regarding the state of the hospital, values, and management's goals? | 1. No<br>2. Yes | |
| 208 | Do you get feedback related to things you done well? | 1. No<br>2. Yes | |
| 219 | Did you involve other nurse under your supervision in the decision-making process? | 1. No<br>2. Yes | |

| 210 | Have you taken training about managerial decision making process | 1. No<br>2. Yes | |
|---|---|---|---|
| 211 **your decision making style** | | | |
| Style | Response | | Skip |
| 211.1 Authoritarian | 1. Moderate<br>2. High<br>3. Very High | | |
| 211.2 Democratic | 1. Moderate<br>2. High<br>3. Very High | | |
| 211.3 Laissez-faire | 1. Moderate<br>2. High<br>3. Very High | | |
| **Part III Factors associated Decision making** | | | |
| 301 | Do you have power in decisions related to nursing activities? | 1. No<br>2. Yes | |
| 302 | Do you have power in strategic and financial planning decision in your hospital | 1. No<br>2. Yes | |
| 303 | Do you have equal status with other hospital managers with comparable responsibilities? | 1. No<br>2. Yes | |
| 304 | The authority in decision making of hospitals rests primarily in the hands of | 1. hospital administrators | |

| | | | | |
|---|---|---|---|---|
| | | 2. physicians<br>3. board of the hospital<br>4. Others __________ | | |
| 305 | Do you consulted when regulation are formulated in hospital? | 1. No<br>2. Yes | | |
| 306 | Do you involved in managerial decision making your hospital? | 1. No<br>2. Yes | | |
| 307 | What the reasons for nurse mangers are for not involved in managerial decision making?<br>(you can choose more than one answer) | 1. Fearing of Risk | 1. No | 2. yes |
| | | 2. Workload | 1. No | 2. yes |
| | | 3. Lack of resource | 1. No | 2. yes |
| | | 4. I didn‘t have Power | 1. No | 2. yes |
| | | 5. Low Satisfaction level | 1. No | 2. yes |
| | | 6. Low Level of appointment | 1. No | 2. yes |
| | | 7. Poor Organizational structure | 1. No | 2. yes |

| | | | | |
|---|---|---|---|---|
| | | 8. Poor Managerial support | 1. No | 2. yes |
| | | 9. Lack of recognition and rewards | 1. No | 2. yes |
| | | 10. My physical and emotional state | 3. | 4. |
| | | 11. Poor professional value | 5. | 6. |
| | | 12. Lack self-confidence | 7. | 8. |
| | | 13. Poor knowledge and skill | 9. | 10. |

| **Thank you for your cooperation!!!** |
|---|

## Declaration

I, the undersigned, declare that this thesis is my original work in partial fulfillment of the requirement for the Degree of Masters of Adult heath nursing and has not been presented for a degree in this or any other university. All source of materials used for this thesis have been duly acknowledged.

Name: Desta Siyoum

Signature: ______________________

Place: _______________________

Date of submission: ___________

This thesis has been submitted for examination with our approval as the university advisors.

Name of the advisor: Brehane Gebrekidan (RN, BSc, MSc, Assistant professor)

Signature______________________

Date ________________________