

# University of Gadareif

## The Impact of Long Working Hours on the Nurses and his Performance at Work at Hussein Mustafa Pediatric Hospital

Faculty of Medicine & Health Sciences  
High Nursing Science  
Batch (3)

A Thesis Research Submitted in Partial Fulfill Requirements for the  
Bachelor Degree in Nursing Program

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## **DEDICATION**

For the source of strength of my life my mother and father.

For those who had been the wind beneath my wings until I complete this work.

My brothers and sister.

For those I love and respect my friends and college.

For the candles that lighting my way my teachers.

## **ACKNOWLEDGMENT**

Foremost all, our thank to our God before and after.

I acknowledge Dr Hala Shamsadin my supervisors for their guidance and useful comment.

I would like to appreciate the encouragement I received from my colleagues, also like to remember many other people who contributed either directly or indirectly in my research although I have not mentioned their names, thank you for every support you accorded research.

Lastly, and most importantly, I wish to thank my mother who devoted her life to see our success I dedicate this research to her and to my father.

## ABSTRACT

➤ **Introduction :**

Long working hours is killing hundreds of thousands of people years, and one of the reason of unhealthy behaviors associated with working overtime such as increase alcohol consumption and lack of exercise in addition employees working long hours may not have the time to seek proper medical treatment when they fall ill.

➤ **Objective:**

The aim of this study is to know the effect of long working hours on nurses in terms of their effect on their sleep, and whether working hours cause them to make mistakes during work and their impact on their lifestyle as well.

➤ **Method:**

A descriptive study in Hussein Mustafa Children's Hospital, in which about 50 nurses working in the hospital participated for long hours, Data analysis manually and computerized using (Microsoft Office Excel).

➤ **Result:**

This study found that about 50% of the participants in this study are not satisfied with working long hours, and about 62% make a lot of mistakes, and these mistakes are that about 87% are late in providing nursing care, and 78% suffer from insomnia, 86% suffer from fatigue, in addition to affecting their performance. Their lifestyle represented that 56% Of the nurses who suffer from constipation, 98% do not eat meals regularly 54% do not drink enough water.

➤ **Conclusion:**

Long working hours greatly affect the nurses, and this effect is represented in dissatisfaction with work, the impact on daily life and their performance at work It also causes insomnia and fatigue and affects their lifestyle represented by sitting for long hours, not drinking enough amounts of water, not eating meals and getting constipated.

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### LIST OF ABBREVIATIONS

<b>Abbreviations</b>	<b>Phrase</b>
WHO	World health organization
ILO	International labor organization



## CHAPTER ONE INTRODUCTION

- A. *Introduction*
- B. *Problem Statement*
- C. *Justification*
- D. *Objective*

### A. *Introduction*

The health care provider work under viraty shift work to cover the care require by the patient and stander working hours may different from country to country and health system (1-2-3).

The normal working hours is about 6-8 hours will make employees productive and make them concentration because working time arrangement, adequate sleep , strong physical and mental health is important in maintain health and worker safety (4,5) but long working hours increase risk for reduce performance in job and causes wide range of chronic disease , fatigue , and effect in level of concentration , judgment , mood , which may be reason for increased injury and medical errors could harm the patient (6,7)

Long working hours not only effect in nurses health but have an effect in the patient outcome and increases the risk for work related to errors and nosocomial infection (8,9) and the study found that working overtime regardless length of original shift increases the nurse chance of making at least one error (10)

According to the study by the world health organization and international labour organization long working hours lead to 745,000 death from stroke and ischemic heart disease in 2016, and another study conducted by the researcher at university of Pennsylvania approximately 40% present of all hospital nurses shift exceed 12 hours with increases opportunities for nurses to make mistakes (11,10)

In the result of Sudanese study about the impact of night and shift work on the health of the nurse found that nurses are expose to long working hours suffer from acute cumulative fatigue , prolonged period of continuous wakefulness this is physiologically disruption is associated with decrease performance and increase errors (12)

### B. *Problem Statement*

Long working hours is the serious health hazard and is killing hundred thousand of people a years because the health care organization often have to provide patient care around clock(13,5) according to the study by the world health organization and international labour organization organization long working hours lead to 745,000 death from stroke and ischemic heart disease in 2016 and another Sudanese study about the impact of night and shift work on the health of the nurse found that nurses are expose to long working hours suffer from acute cumulative fatigue , prolonged period of continuous wakefulness this is physiologically disruption is associated with decrease performance and increase errors so it has become a hot topic in health care (11,12).

### C. *Justification*

Long working hours become amjor health problem facing nurses today because nurses play avital role in the health care industury, care for all patient and condition becaus health care must be available at all hours, long working hourse influenced in both patient and nurses ,it also increases the suffering of nurses ,which is negatively adverse patient outcome.

### D. *Objective*

#### ➤ *General Objective*

- Assessment the impact of long working hours on the nurse and job performance.

#### ➤ *Specific Objective*

- To evaluation the effect of long working hours in the nurses health
- To assess if nurse are satisfy with long working hours.
- To determine the factor that makes nurses work long hours.

#### ➤ *To Assess if Long Working Hours Causing the Following:*

- \*Sleep Loss
- \*Fatigue
- \*Medical Errors
- \*Change Lifestyle.

## CHAPTER TWO LITERATURE REVIEW

### A. Literature Review

#### ➤ Working Hours

Is period of time that person spends at work or paid labor and had described as working hours per days, week ,or month (2,14,15).

#### ➤ Maximum Working Hours

Is the maximum number of hours that must be worked or refer to maximum working hours of an employee. The employee cannot work more than the level specified in the maximum working hours labor (14,15).

#### ➤ Stander Working Hours:

Stander working hours or(normal working hours) refer to legislation to limit the working hours per week ,month ,or years ,and stander working hours of countries worldwide are around 40-48 hours per week and 6-8hourse per days in Sudan the official of work hours 48 hours per week and 8 hours per days will make employee productive and make them to concentrate balancing both family and work ,life by devoting adequate time for family and social(15,3).

#### ➤ Working Time Arrangement:

Balanced working time arrangement are shown to reduce of absentee and staff turnover, improve employees attitudes and translate into better organization performance ,working time arrangement in health sector have an impact on worker safety and health, personal outcomes and organizational performance terms of patient outcomes, these arrangements could also reduce diminished capacity to manage workload job dissatisfaction ,burnout ,absenteeism and poor service delivery and productivity longer shift (working 12 hours or more ) longer weekly hours of work (40 hours per week ),insufficient breaks overtime ,and on-call hours have been linked to adverse nursing injuries, physical discomfort, and accidents. Lengths and weekly work hours should be regulated in order to prevent potential negative impacts on both nurses and patient.

#### ➤ Work Schedule

Work schedule insult of time periods when employees expected to work or are the time pattern that employees follow on the job, atypical nurse schedule that can differ based on number of hours, irregular world schedules and work overload may also contribute to work-family conflict within the predominantly female health workforce which could lead to lower level of satisfaction in work and life.

#### ➤ Common Shift Working Terms and Patient:

##### • Rotating Shift:

Working pattern of days and nights this refer to the speed and direction in which worker change shift can be forward (from morning to afternoon to night shift) or backwards rotating (the reverse of forward).

##### • Night Shift:

Typically starts anywhere between 8pm and 10pm runs for 10-12 hours.

##### • Split Shift:

This involves the shift being splits into parts for example; worker may work the first part of the shift between 6am-10am and later part between 4pm-8pm.

##### • 12 Hours Shift:

12 hours shift e is worked instead of the more traditional eight hours shift arrangement.

##### • Evening Shift:

Typically 2pm-10pm, but in part -time work fewer hours than stander working hours 5pm-9pm.

##### • Early Morning:

Typically 7am-3pm or 8am-4pm shift.

##### • Three - Shift System:

The day is divided into three working periods of eight, hours each-morning, afternoon and night.

- *Double Days/Two Shift:*

This is normally two shifts of eight hours each, for example 6am-2pm and 2pm-10pm shift are usually alternated weekly or over longer intervals.

- *Continental Shift:*

This is continuous three - shift system that rotates rapidly: for example three mornings, then two afternoon, then two nights.

- *Over Time:*

Working more than full time hours in week based on needs. (14,15).

- *Long Working Hours:*

Is defined as working 9hours or more in any one 24hour period and also it the time that is equal or exceed 48hour week or can be recognized as working for length of time which exceed standard working hours.(17,2)

Long working hours is killing hundreds of thousands of people years, and one of the reason of unhealthy behaviors associated with working overtime such as increase alcohol consumption and lack of exercise in addition employees working long hours may not have the time to seek proper medical treatment when they fall ill(11,18) ,particular shifts exceeding 10-12 hours has been linked to negative health effects among staff ,such as reduced mental health, sleepiness and fatigue , and overweight ,diabetes ,depression, anxiety, increase risk of chronic disease, at the same time ,increased shift length has been tied to negative patient consequences ,such as higher risk errors among nurses (19),the U.S department of labor found that increased time lost to absenteeism and increased injury ,and it usually required 3hours of work to produce an additional 2hours of productivity, nursing research has shown that increased work hours raise the likelihood of adverse event and errors in health care(20)

➤ *The Risk Associated with Long Working Hours*

- *Sleep Disorder*

Anormal duration for sleep is about 7-8h per night,which can lower the risk of myocardial infarction, cerebro cardiovascular diseases, diabetes mellitus and high blood pressure as well as reducing working injuries and mistakes(21).

Shift work sleep disorder is circadian rhythm sleep disorder ,characterized by sleep problem,persistent difficulty with sleep onset,duration, consolidation or quality ,long working hours lead to sleep deprivation and also may lead to major health concern ,the condition may negatively impact the worker professional performance and put them at higher risk of committing an error or being involved in work place accident (22) nurses suffer from insomnia more often than other health care professionals and a quarter of shift worker nurses are suffering from shift work sleep disorder (23,24) ,among intensive care by unit (Guerra PC Oliveira NF, Terreri MT de SELRA, et al )showed that 59% among evening shift workers complained of severe sleeplessness and 42% reported insomnia (25).

- *Work Fatigue*

Long working hours act as direct stressor due to cumulative fatigue also they act as ,fatigue is frequently cited as a major cause of shift work intolerance in many studies on shift work and fatigue, fatigue is defined and operationalised in different way, for example in terms of increased sleepiness ,and reduced alertness fatigue is seen as subjective sensation with cognitive and behavioural components further more we will only deal with fatigue persistent over a period of several days also called prolonged fatigue(26,27), nurses work for a long time without regular breaks and therefore experience increased fatigue. (28)

- *Obesity and Change in Life-Style*

The effect of long work hours on the life-style of a person should be clarified .more over,if working long hours increases work stress and effect on life-style such as sleep pattern and regularity of daily life and meals(29)

Obesity is a modifiable risk factor for a variety of health problems including, cardiovascular disease type 2 diabetes certain cancer proportion of disease burden and death world wide, resulting from changes in living and working environment, long working hours and working over time may increase the risk of weight gain and to obesity by reducing time for exercise ,fostering unhealthy habits ,leading to positive energy balance, and subsequently to weight gain(30, 31) working long hours increases work stress and effect on life-style such as regularity of daily life and meal(29) ,Other study show that shift workers commonly complain of gastrointestinal symptoms including abdominal pain, gas, constipation, change in appetite, indigestion, and heartburn (32)

- *Work Errors and Injury*

Occupational injuries represent a major public health problem(33) , some studies have detected evidence of a relation between long working hours and increased risk of occupational injury among workers(34) , another study found that injuries usually occurred during urgent interventions and following long working hours increasing the sharp and needle stick injury among nurses(35) ,multiple studies have shown a strong association between long working hours and development of various injury and illness(36).

Extended work period and long working hours are associated with adverse effect on patient safety in hospital and increasing accident and neuropsychological deficits among nurses (37), according to a study published in the Journal of Health Affairs, which examined nearly 400 nurses and more than 5,300 shifts, the participating health care workers reported 199 errors and 213 near errors during the study period, more than half of these involved medication administration, nurses working shifts of 12.5 hours or more are three times more likely to make errors than nurses working shorter shifts (38). Longer work duration increased the risk of errors and near errors and decreased nurses' vigilance, and nurses had over 3 times the odds of making an error when working 12 or more hours, compared with 8.5-hour shifts. (39, 40)

- *Work Stress*

The job stress experienced by health-care workers significantly affects the quality of medical services provided, occupational stress in nursing is worldwide (41). Extended and odd working hours may lead to many physiological problems in employees which may lead to stress during work (42), some studies have demonstrated that long work hours contribute to psychological stress and work stress, prolonged job stress, prolonged job stress affects the mental health, leads to depression, immunosuppression, deterioration of memory (43).

- *Job Performance*

Longer working hours for hospital nurses are associated with adverse outcomes for nurses. Some of these adverse outcomes, such as high burnout, may pose safety risks for patients as well as nurses (44), and also shift work and long working hours have a negative impact on hours and reported that shift work and long working hours increase the risk for reduced performance on the job, nurses working shifts of  $\geq 12$ h were more likely to experience job dissatisfaction (45,46)

## CHAPTER THREE

### RESEARCH METHODOLOGY

➤ *Study Design:*

A descriptive hospital base study

➤ *Study Areas:*

Algarif is one of the 18 states of Sudan. It has an area of 75,263 km<sup>2</sup> and an estimated population of approximately 1,400,000 (2000), and is located in the eastern part of the former Kassala region, between latitudes 12 and 17 degrees north, and longitudes 34 and 36 degrees east. It is bordered on the northern and western sides by the states of Khartoum and Gezira, and on the eastern side by the state of Kassala and the Sudanese-Ethiopian border, and from the south by Sennar state, The number of its localities is 24, which were later reduced to sixteen (16), which are: 1. The city of Gedaref, 2. The rural center of Gedaref, 3. The rural area of Al-Sabbagh, 4. The rural area of Shawak, 5. The rural area of Lakdi, 6. The rural area of Islam, 7. The rural area of Al-Shawak. Kassab, 8. Rifi Quraishah, 9The state is characterized by vast land suitable for agriculture, and the largest projects for rainfed agriculture in Sudan, is considered important for food security in Sudan's strategic center,

➤ *Study Setting:*

Gadarif Hussein Mustafa Pediatric Hospital Founded on 1/11/2009, Border by faculty of medicine and health ,and gadarif hospital emergency , the hospital includes 10 departments or wards ( waiting ward + steam + HDU + emergency accidents + neonatal ward + general ward + diarrhea ward + kalazar ward + inflammatory ward + nutrition department ) ,it also has laboratory lab and blood bank in addition to the statistics office , and also two pharmacies one is emergency and commercial pharmacy , it also contains a isolation room and rest room of doctors , where the number of fixed nurse is 70 , and number of collaborators is 51 , and there are 6 unit of specialist doctors , and payment of wages by ministry of finance. Study population: The study subjects included in the detailed assessment were selected as only.

➤ *Study Population*

The participants of this study consisted of nurses, who were respondents of the questionnaire. They were randomly selected from the workforce of the hospitals included in the study

➤ *Study Period :*

The study carried out during period from 1ST of JULY to 1ST december in 2021 .

➤ *Sample Size:*

The total coverage taken for the available nursing during the period of study from July to Octoberer in Arabic language include nurse socio demographic characteristic.

➤ *Sample Size and Sample Technique:*

Conveyance sample in 50nurse ware selected proportionally from general population.

➤ *Method of Data Collection :*

• *Data Collected by :*

Self Administered Questionnaire filled by the nurses in Arabic language include nurse socio demographic characteristic.

• *Method of Data Analysis :*

Data analysis manually and computerized using (Microsoft Office Excel).

➤ *Ethical Considerations*

The research, and their consent was informed and obtained from algararif University faculty medicine and health science nursing science program and permission obtaine from the administrations of the Hussein Mustafa pediatric hospital , and verbal consent from the nurses after explaining the purpose of the study and benefit.

➤ *Inclusion Criteria:-*

All nurses who more than stander hours during the study period

➤ *Exclusion Criteria:*

All nurses who work stander working hours

## CHAPTER FOUR RESULT ANALYSIS AND DISCUSSION

*A. Result*

Table 1 Age

Age	Frequent	Percentage
20-30years	27	54
31-40years	18	36
above 40 years	5	10

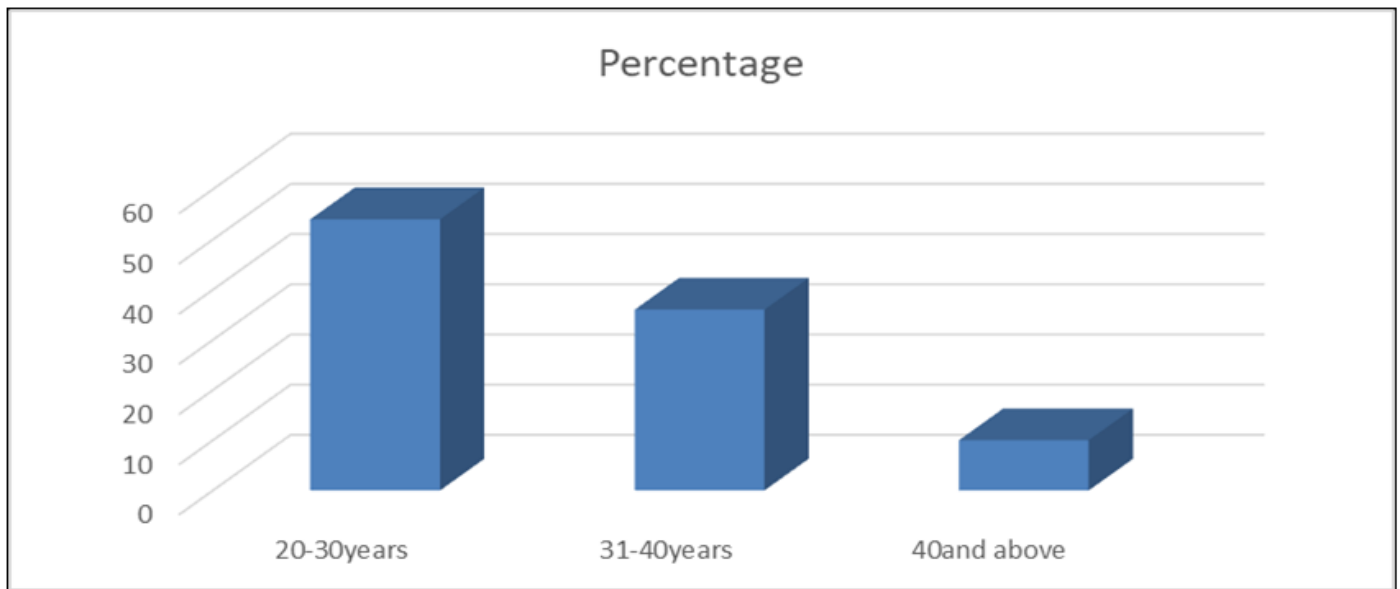


Fig 1 Age

- Fig show that the age distribution of nurse participated in this study the younger population in the rang 20-30 formed the majority (54%)of participant ,the age group of 31-40 formed(35%) while the age group above 40 is formed (10%).

Table 2 Gender

Gender	Frequent	Percentage
Male	6	12
Female	44	88

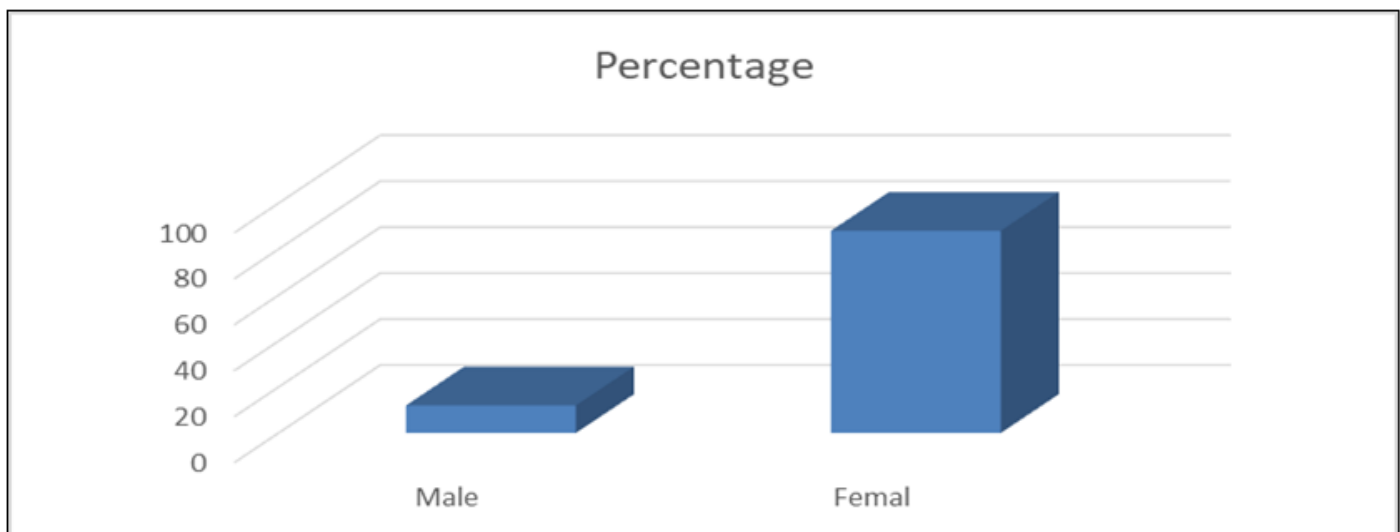


Fig 2 Distribution of the Study Participant According to Gender

- Fig shows that the majority of nurse participated in this study are femal (88%), (12%) are male.

Table 3 Marital Status

Marital Status	Frequent	Percentage
Unmarried	32	64
Married	17	34
absolut	1	2
Wido	0	0

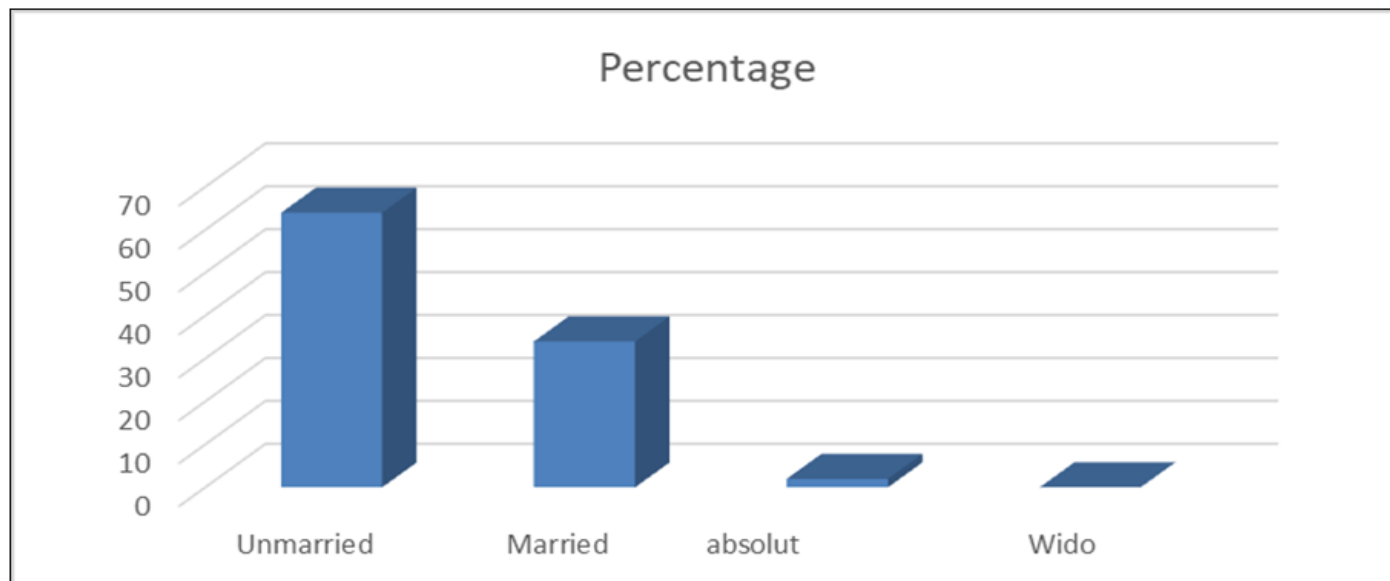


Fig 3 Marital Status

- Fig show that (64%) who work for long hours are not married, (34%)are marraied and about (2%) are wido.

Table 4 Qualification

Qualification	Frequent	Percentage
diploma	39	78
Bachelor	7	14
Master	0	0
Other	4	8

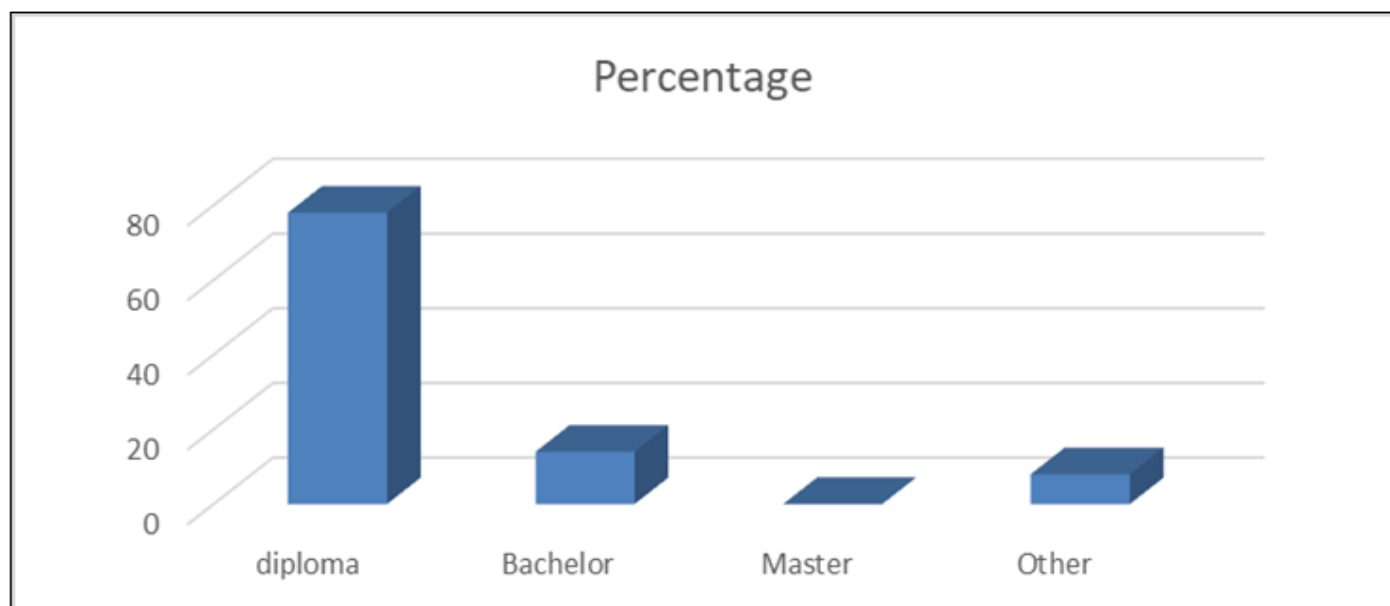


Fig 4 Qualification

- Fig show that (78%) are diploma holder ,(14%)bachelor holder , and (8%) other certificat.



Table 5 Duration that Spent at Work for Long Hours

Duration that Spent at Work for Long Hours	Frequent	Percentage
month-years	9	18
2-3years	11	22
4years and above	30	60

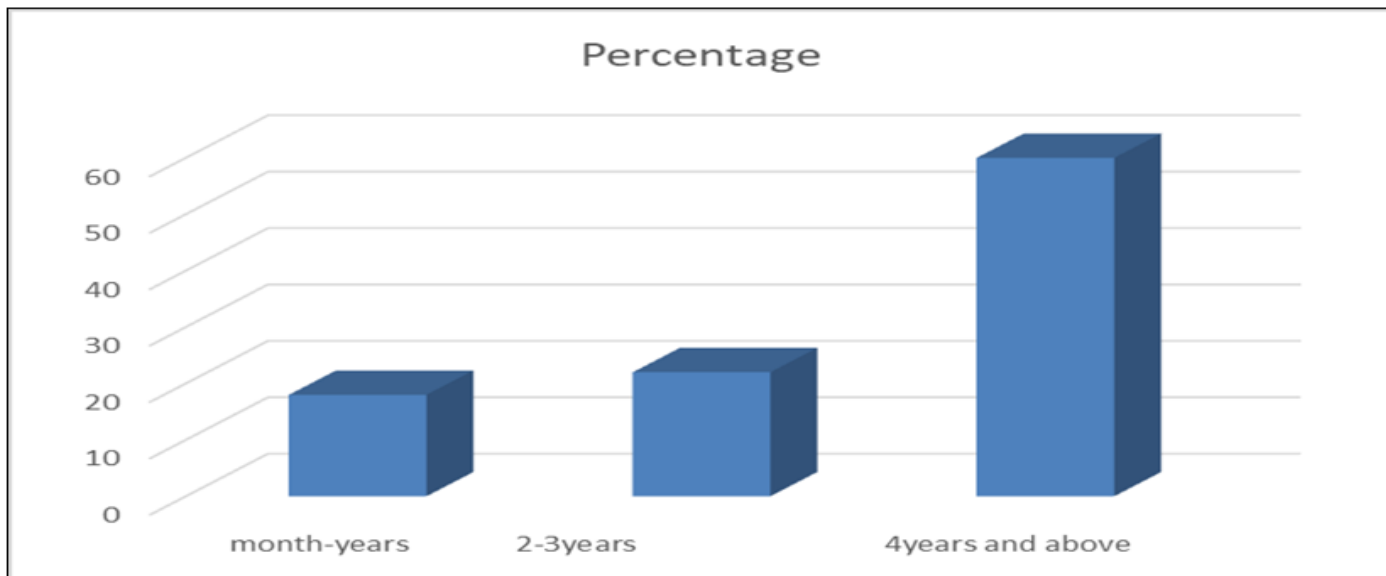


Fig 5 Duration that Spent at Work for Long Hours

- Fig show (60%) of nurse have been work long hours more than 4years,(22%)work long hours for 2-3years ,and (18%) work long hours for month to 1year.

Table 6 Years of Experience

Years of Experience	Frequent	Percentage
1-5years	23	46
6-10years	17	34
11-20years	6	12
20years and above	4	8

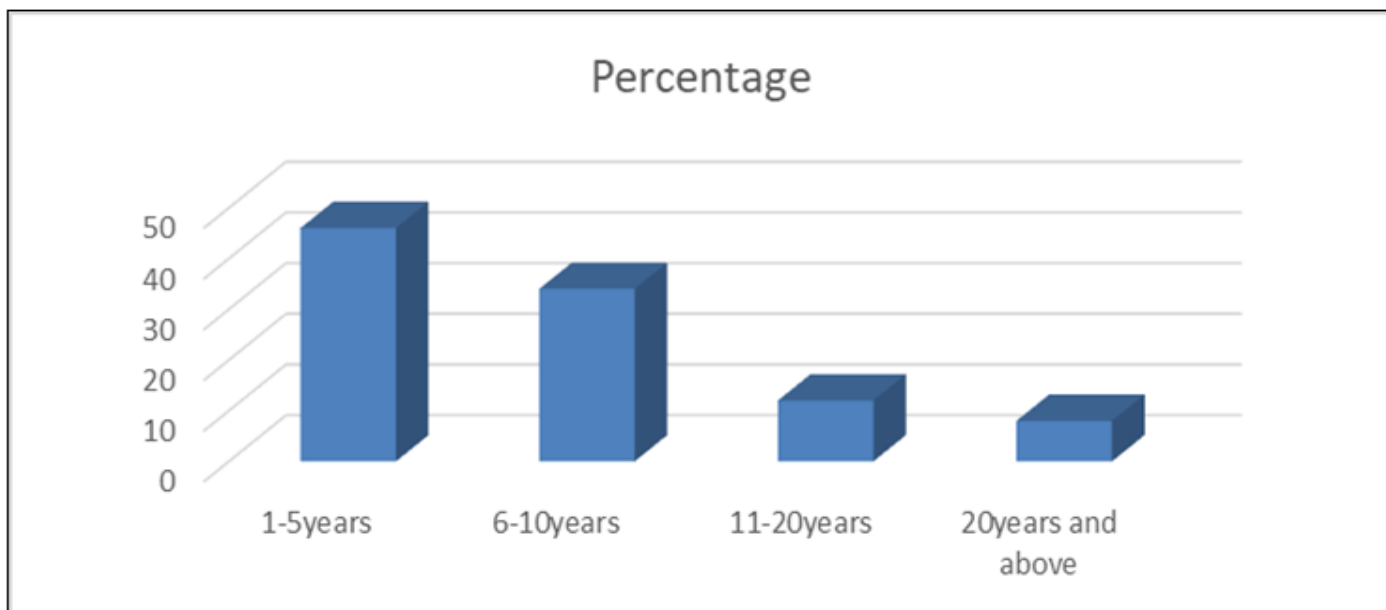


Fig 6 Years of Experience

- Fig show (46%) of nurse have been work for 1-5years , (34%) work for 6-10years,(12%)work for 11-20,and (8%) work more than 20 years.

Table 7 How many Hours do you Spend at Work

How many Hours do you Spend at Work	Frequent	Percentage
9-12 hours	0	6
13-16 hours	50	100
17-24 hours	0	0

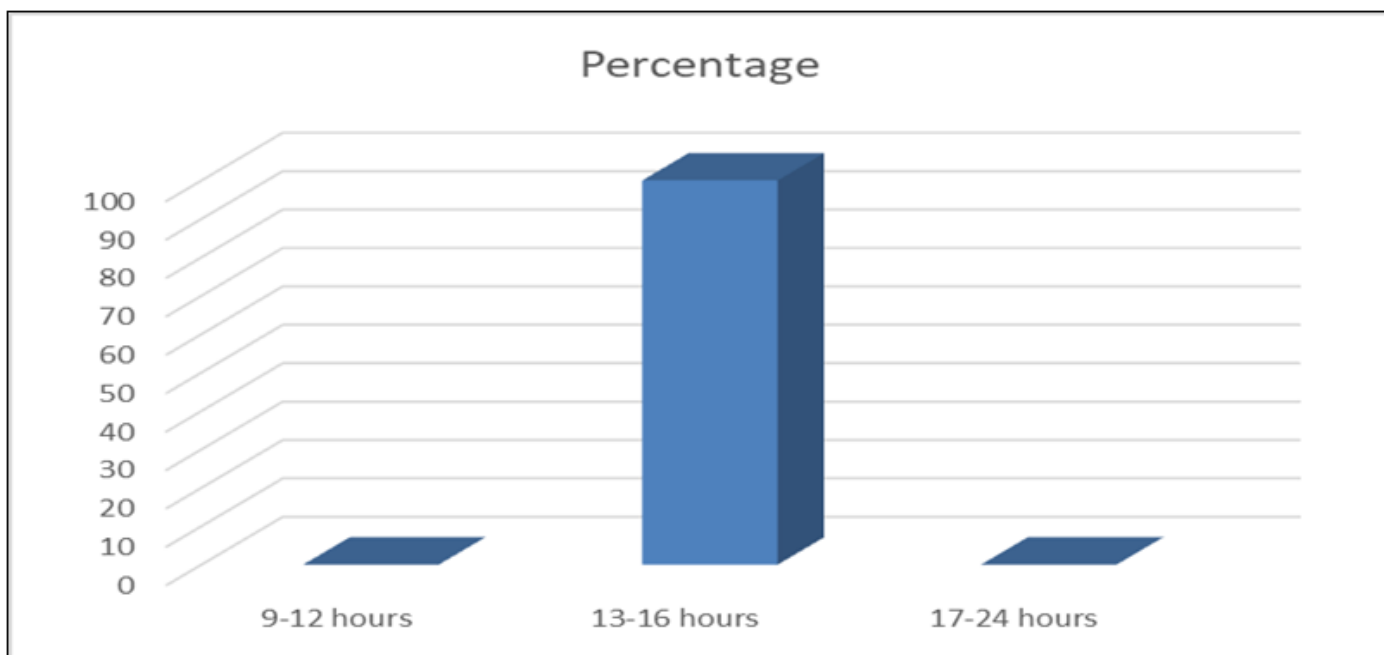


Fig 7 How many Hours do you Spend at Work

- Fig show that (90%)of nurse participat in this study are work about 13-16hours ,(6%) work 9-12 hours ,and (4%) work 17-24hours.

Table 8 Do you Feel Satisfied with Work for Long Hours

Do you Feel Satisfied with Work for Long Hours	Frequent	Percentage
Yes	25	50
No	25	50

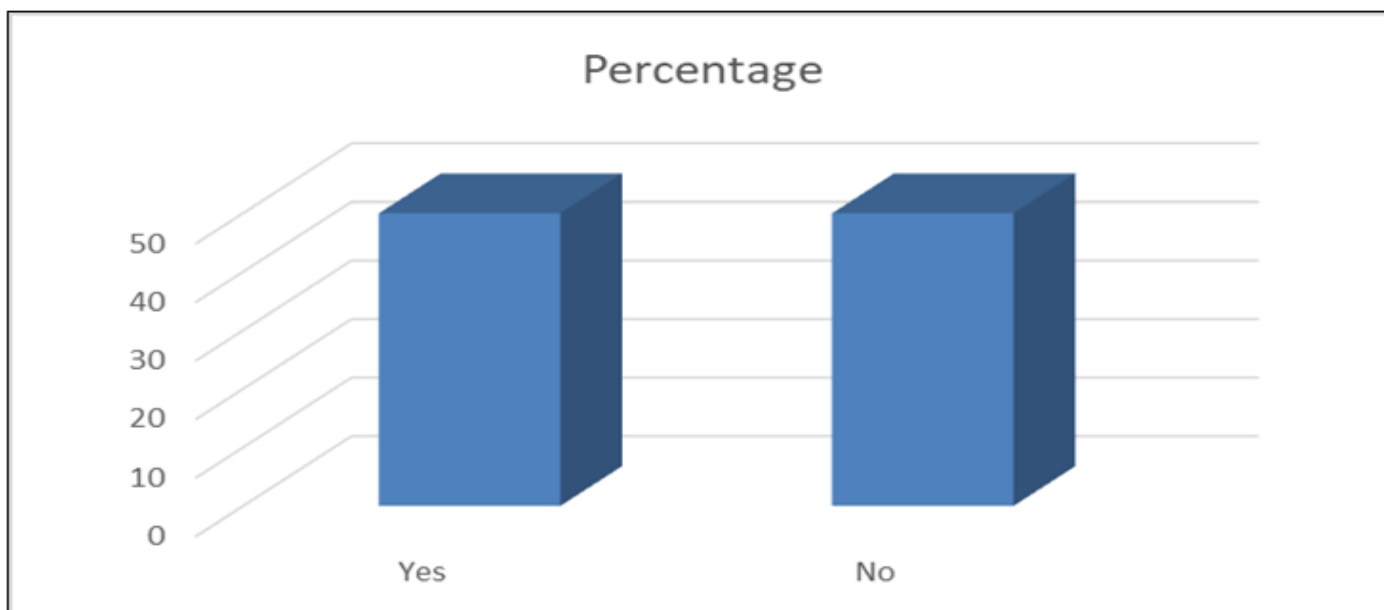


Fig 8 Do you Feel Satisfied with Work for Long Hours

- Fig show that half (50%)of nurse who work long hours are satisfied with working long hours, and (50%)not satisfied with working long hours.

Table 9 What at the Reasons that you have to Work for Long Hours

What at the Reasons that you have to Work for Long Hours	Frequent	Percentage
to increas your income	2	4
Distriburion schedule within hospital	34	64
lack of employees	14	28

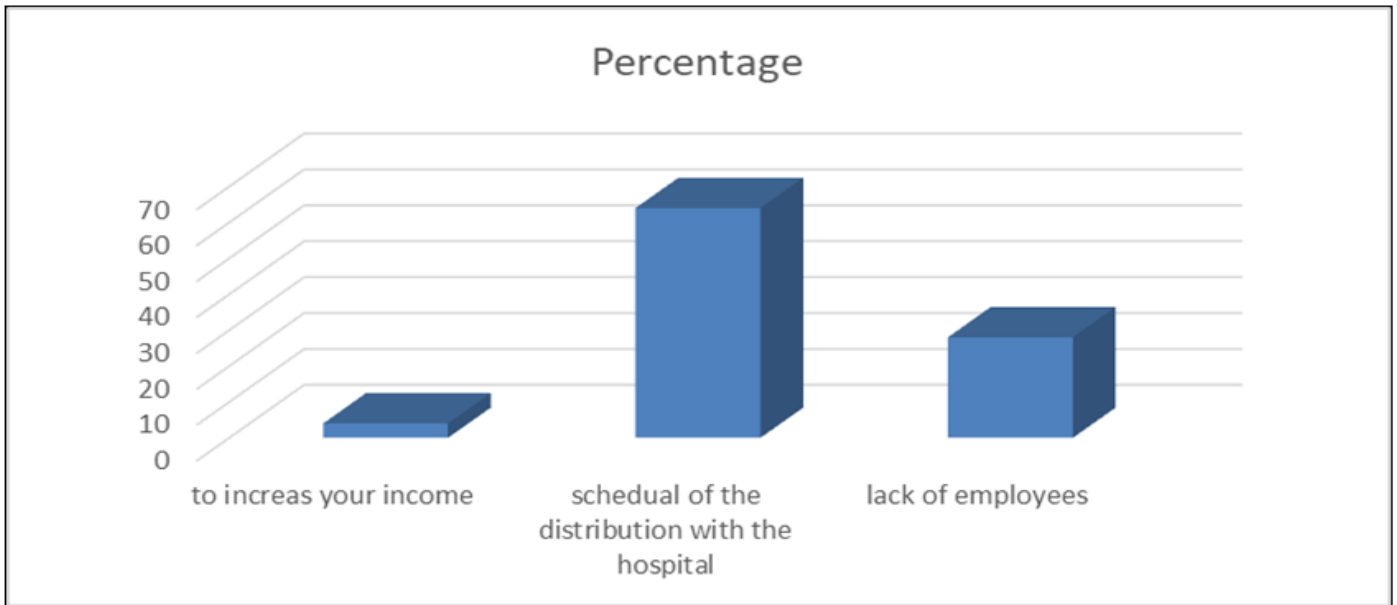


Fig 9 What at the Reasons that you have to Work for Long Hours

- Fig show that (64%)of nurse in this study working long hours du to distribution schedule within hospital,(28%) work long hours du to lack of employees,(4%) work long hours to increas their incom.

Table 10 How Far do you cause Long Working Houes of Problem

How Far do you cause Long Working Houes of Problem	Frequent	Percentage
in your performance to work	4	8
in your dialy life	30	60
(a-b)together	16	32

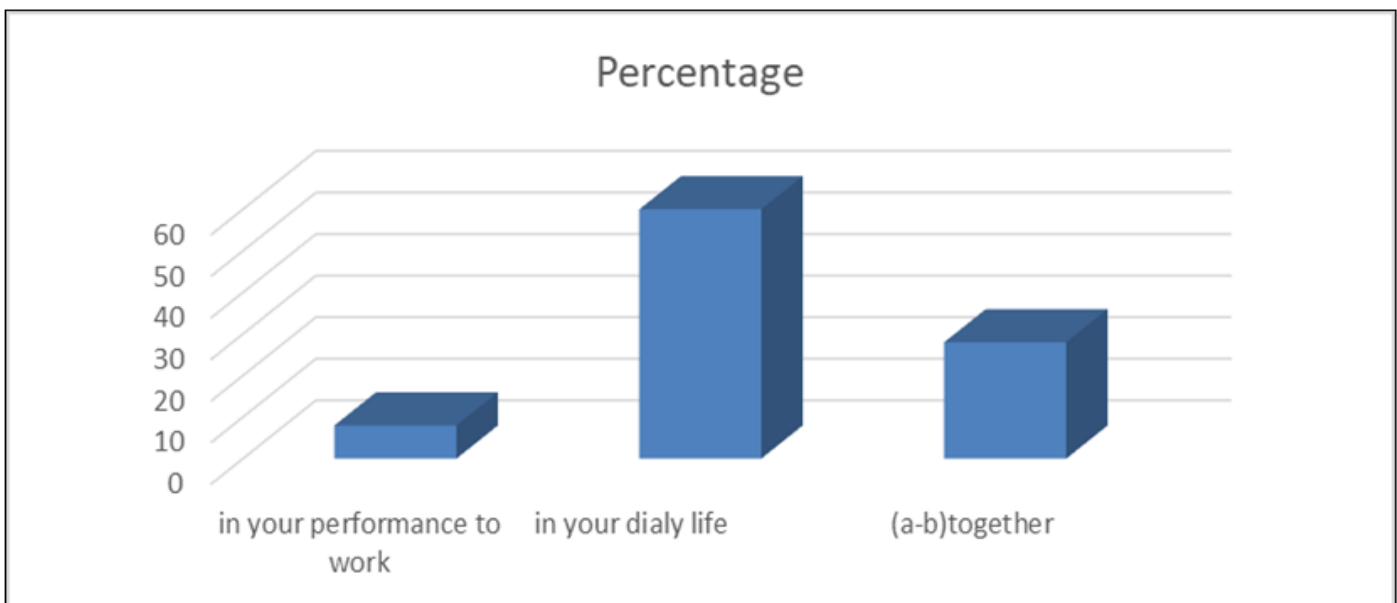


Fig 10 How Far do you cause Long Working Houes of Problem

- Fig show (60%)of nurse participat in this study long working hours effect their daily life,(32%)long workibg hours effect their daily life and work performance.

Table 11 What is the Best for you

What is the Best for you	Frequent	Percentage
Working for long hours	20	40
Working for short hours	30	60

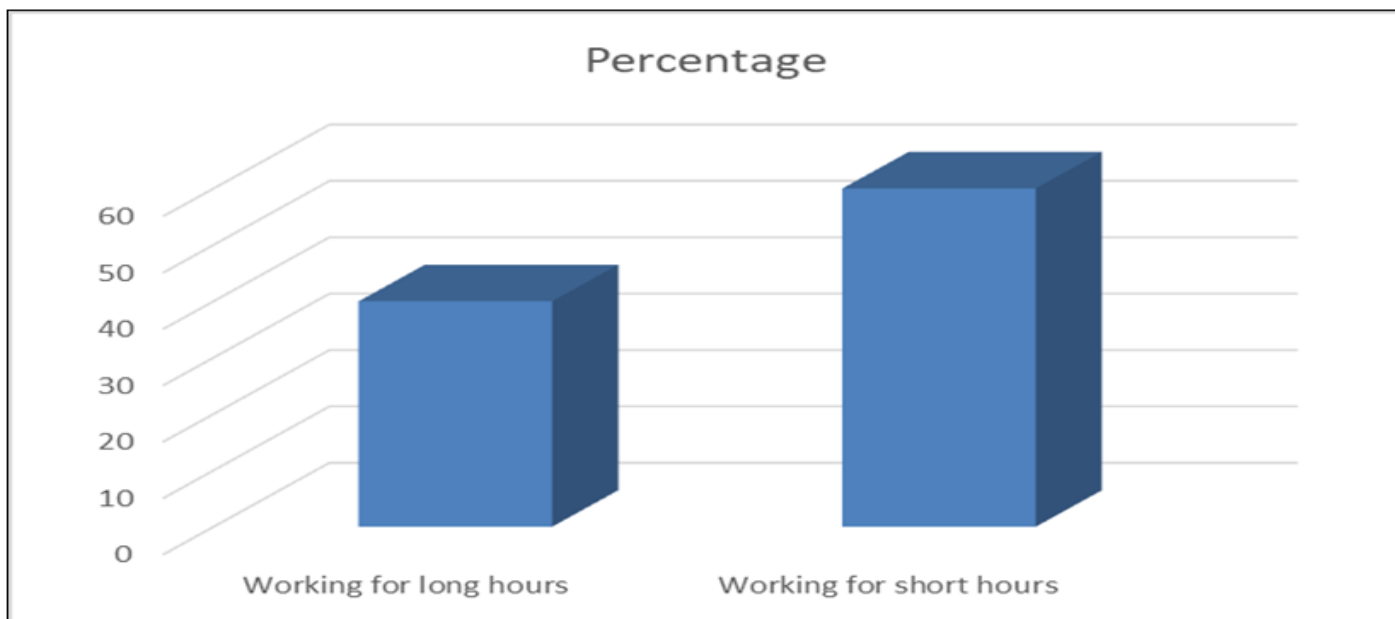


Fig 11 What is the Best for you

- Fig show that (60%) of nurse in this study prefer to work short hours,and (40%)prefer to work long hours.

Table 12 Do Long Working Hours causes Mistakes at Work

Do Long Working Hours causes Mistakes at Work	Frequent	Percentage
Yes	31	62
No	19	38

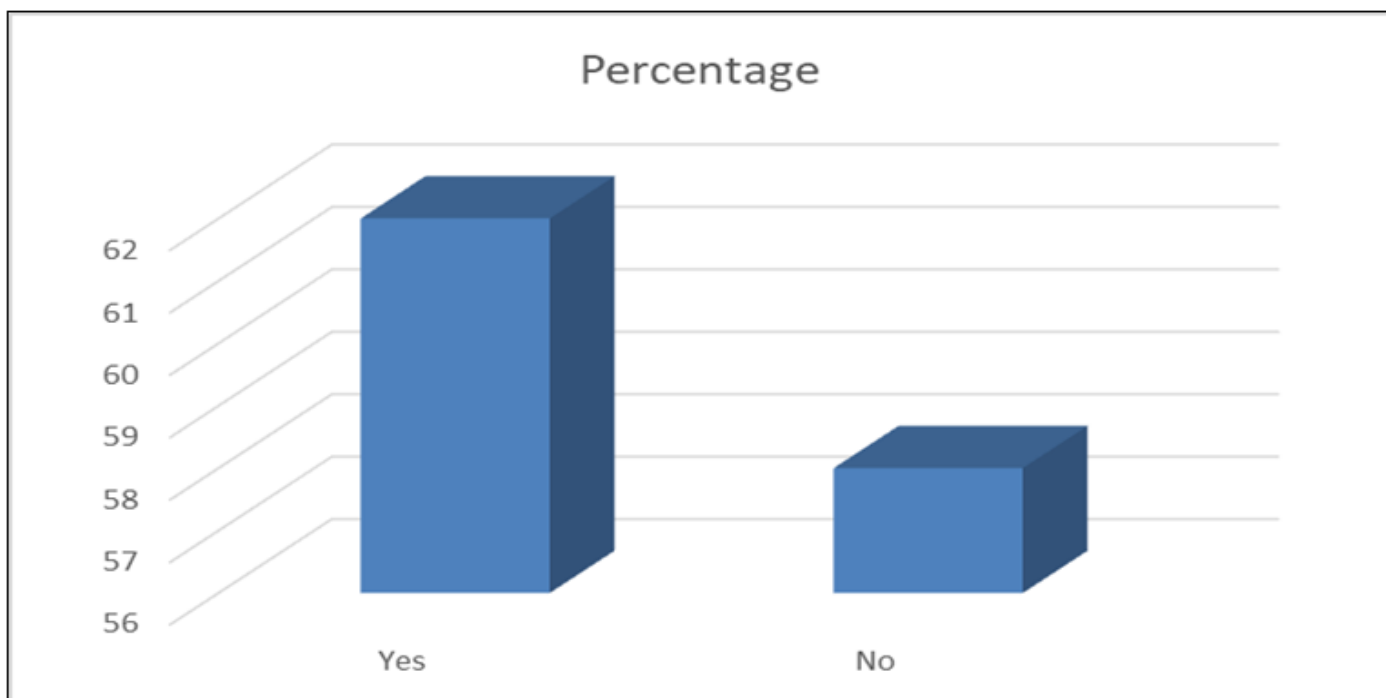


Fig 12 Do Long Working Hours causes Mistakes at Work

- Fig show that (62%) they make mistakes during long working hours,they don't make mistakes during long working hours.

Table 13 If yeas the Mistakes is

If yeas the Mistakes is	Frequent	Percentage
give the patient wrong medication	3	9.7
give patient wrong dos	1	3.3
delay in providing nursing care	27	87

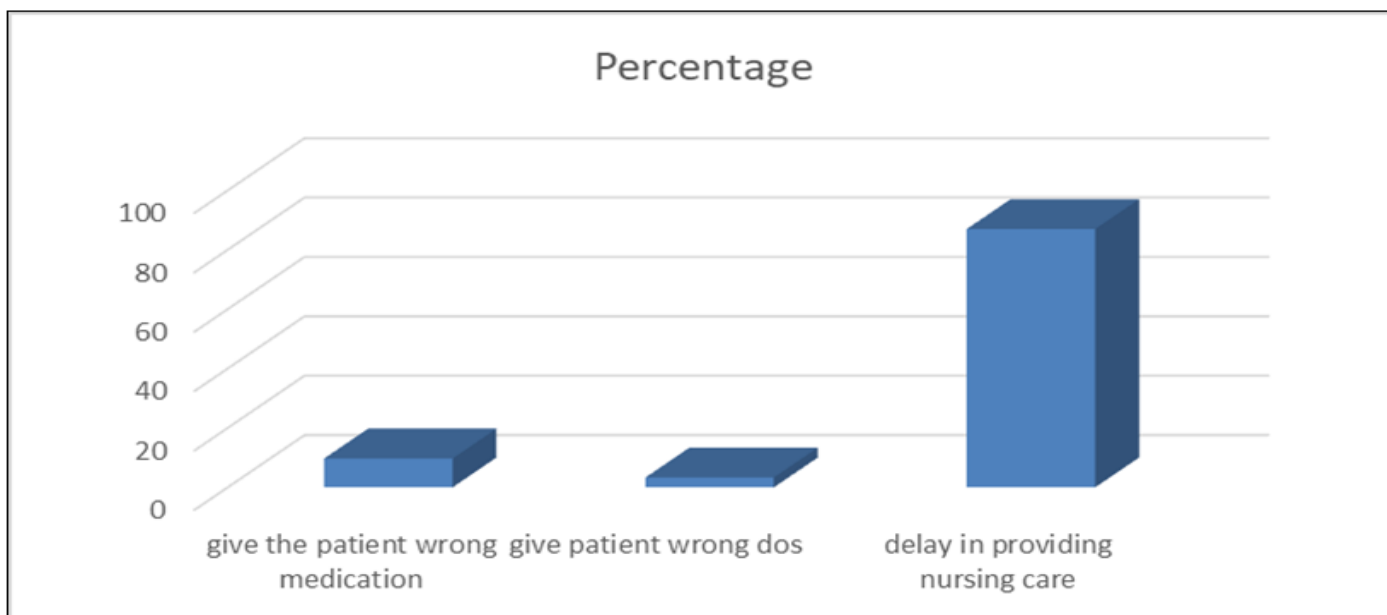


Fig 13 If yeas the Mistakes is

- Fig show that (87%) of nurse participat in this study they are delay in providing nursing care,(9,7%) their mistak are giving the patient wrong drug,(3,3%) giving the patient wrong dos.

Table 14 Do you Feel that your Sleep is Normal

Do you Feel that your Sleep is Normal	Frequent	Percentage
Yes	16	32
No	34	68

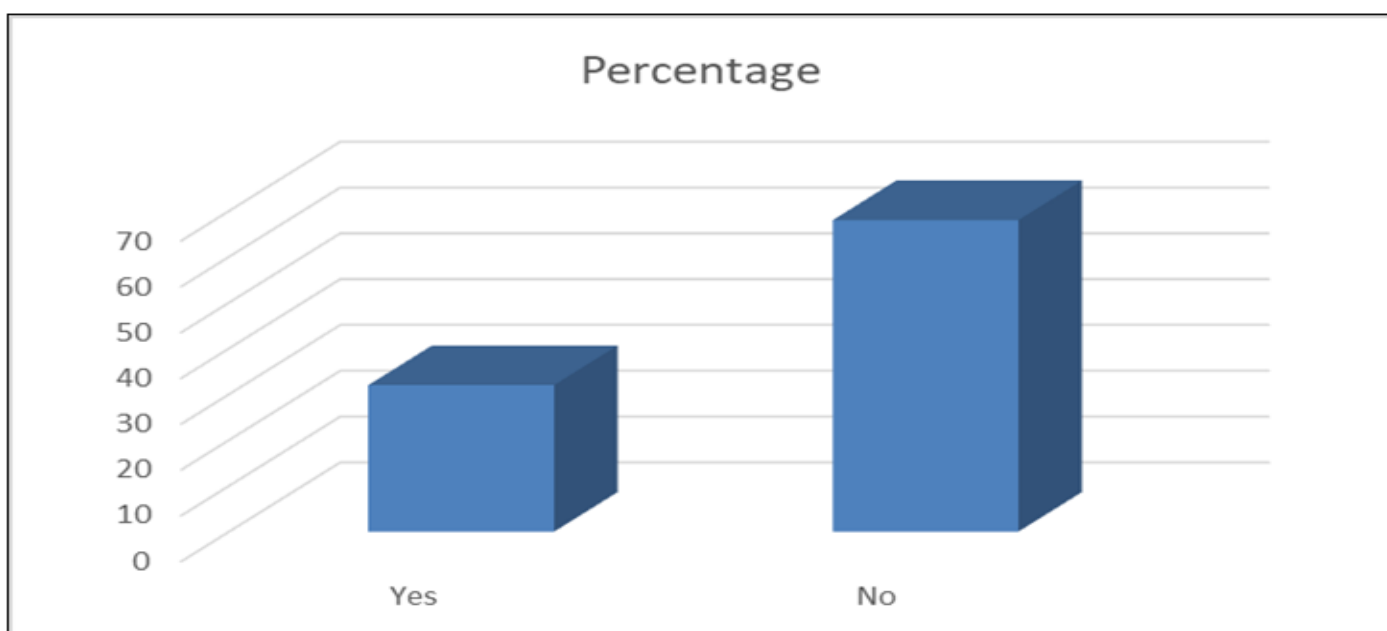


Fig 14 Do you Feel that your Sleep is Normal

- Fig show that (68%) of nurse they feel that their sleep is not normal after long hours, and (32%)they feel that their sleep is normal after long working hours.

Table 15 How much dose it Sleep During Working Hours

How much dose it sleep During Working Hours	Frequent	Percentage
4-5hours	32	64
6-7hours	5	10
mor than 8hours	13	26

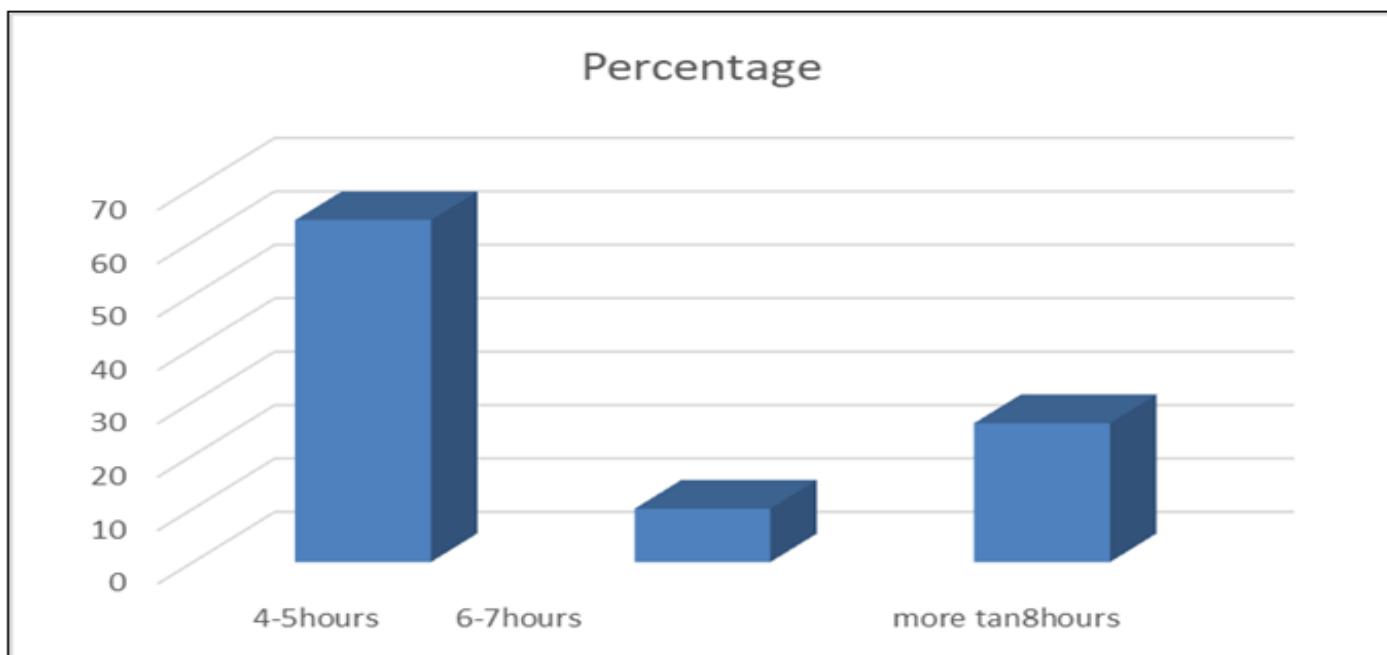


Fig 15 How much dose it Sleep During Working Hours

- Fig show that (64%) of nurse sleep around 4-5hours about long working hours, (26%)sleep above to 8 hours, and(10%) sleep around 6-7 hours.

Table 16 Do you Suffer from Insomnia after Long Working Hours

Do you Suffer from Insomnia after Long Working Hours	Frequent	Percentage
Yes	39	78
No	11	22

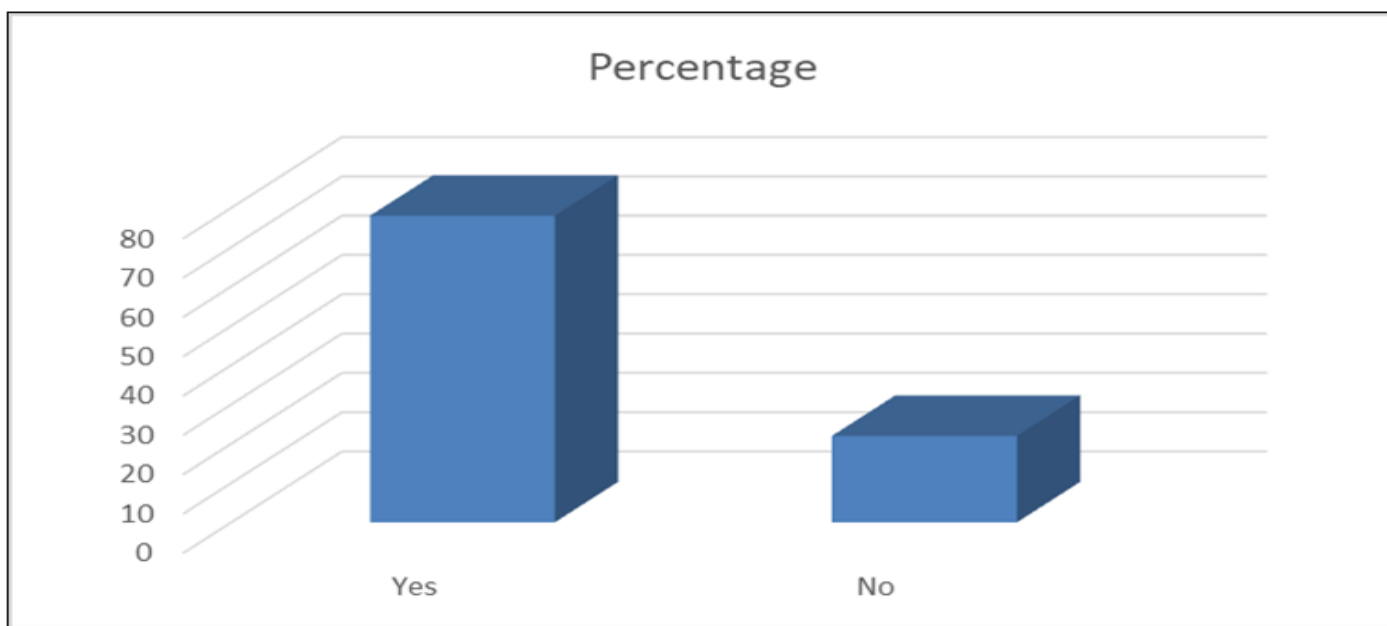


Fig 16 Do you Suffer from Insomnia after Long Working Hours

- Fig show that(78%) suffer from insomnia, and (22%)not suffer from insomnia.

Table 17 If yeas -do you use the Sleeing Pills

If yeas -do you use the sleeing pills	frequent	Percentage
Yes	3	7.6
No	36	72.4

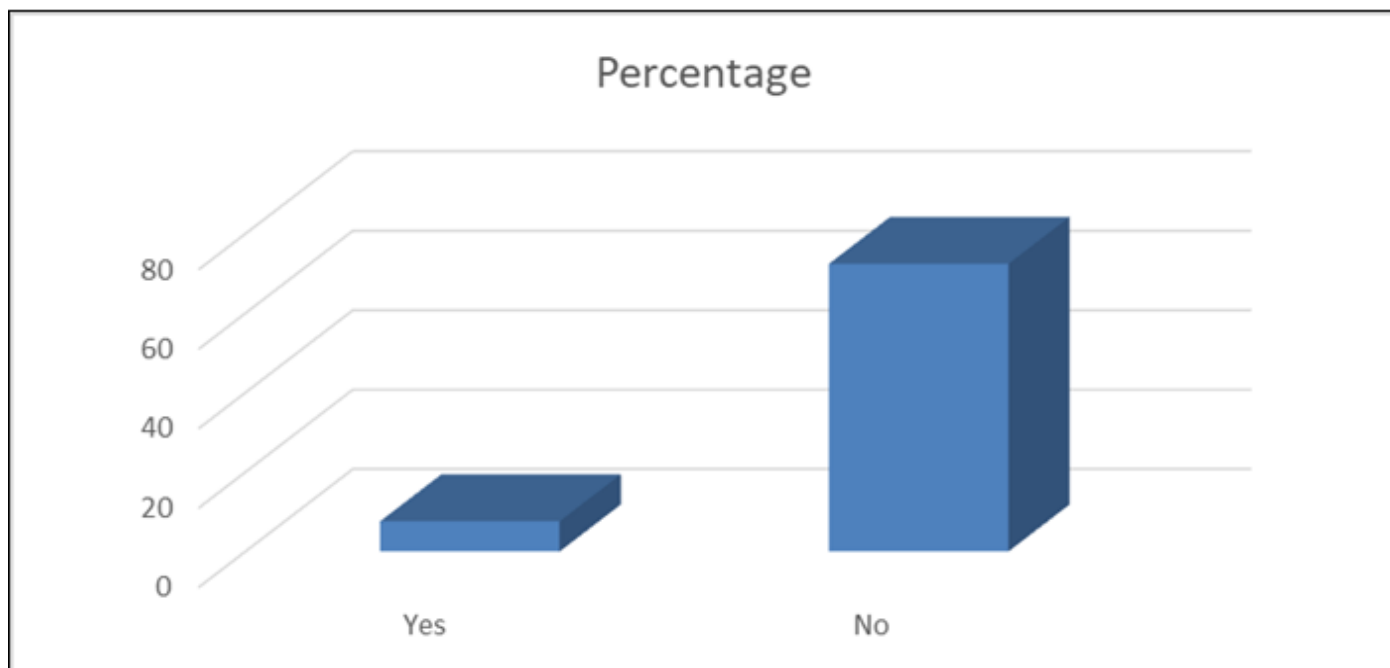


Fig 17 If yeas -do you use the Sleeing Pills

- Fig show (72.4%) they do not use sleeping pills, and( 7,6%) use sleeping pills.

Table 18 Do you Suffer from Fatigue During Long Working Hours

Do you Suffer from Fatigue During Long Working Hours	Frequent	Percentage
Yes	43	86
No	7	14

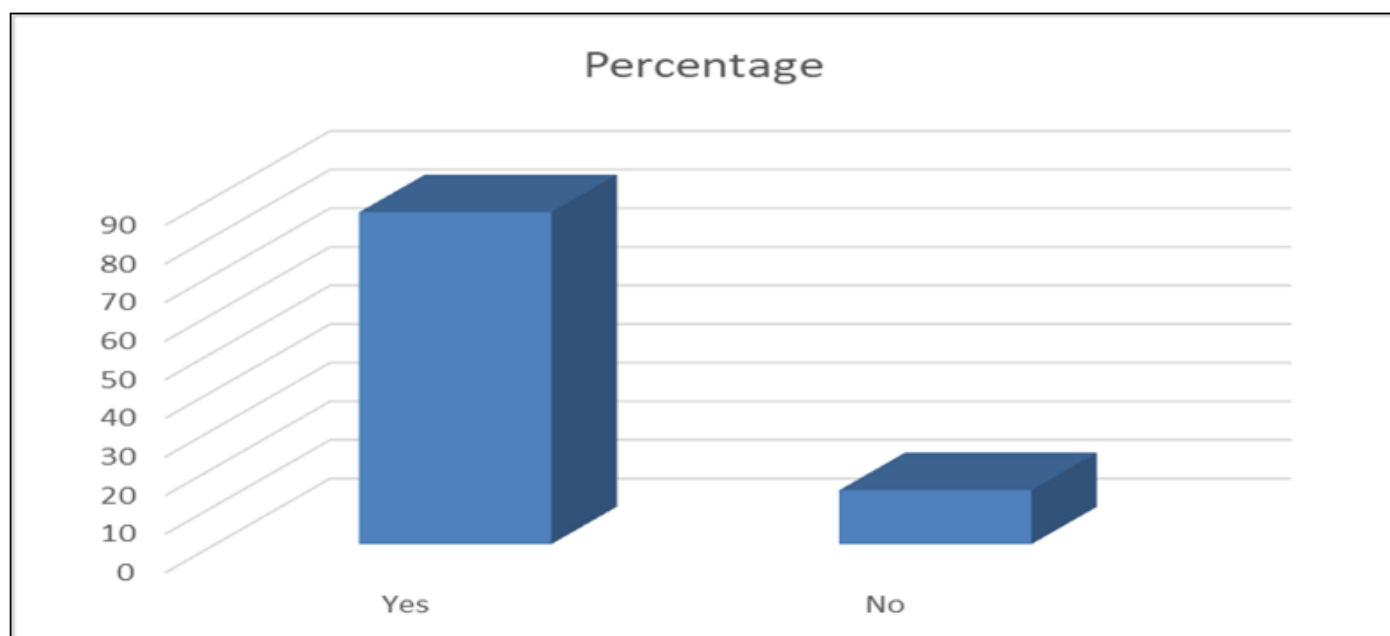


Fig 18 Do you Suffer from Fatigue During Long Working Hours

- Fig show that(86%) feel with fatigu during long working hours,(14%) not feel with fatigu during long working hours.

Table 19 Do you have Sufficient Energy to Work

Do you have Sufficient Energy to Work	Frequent	Percentage
Yes	27	54
No	23	46

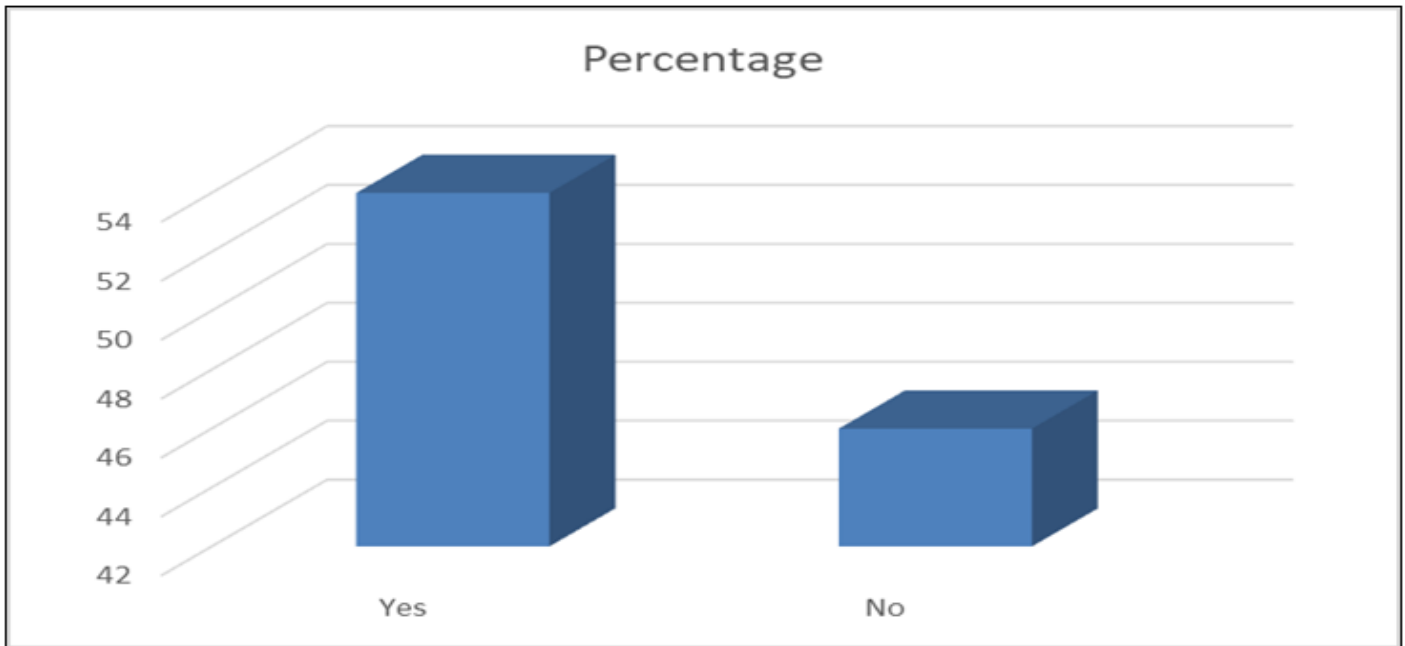


Fig 19 Do you have Sufficient Energy to Work

- Fig show (54%) they do not have enough energy to work long hours,(46%) have enough energy to work long hours.

Table 20 Do you Feel Physically and Mentally Tired During Working Hours

Do you Feel Physically and Mentally Tired During Working Hours	Frequent	Percentage
Yes	39	78
No	11	22

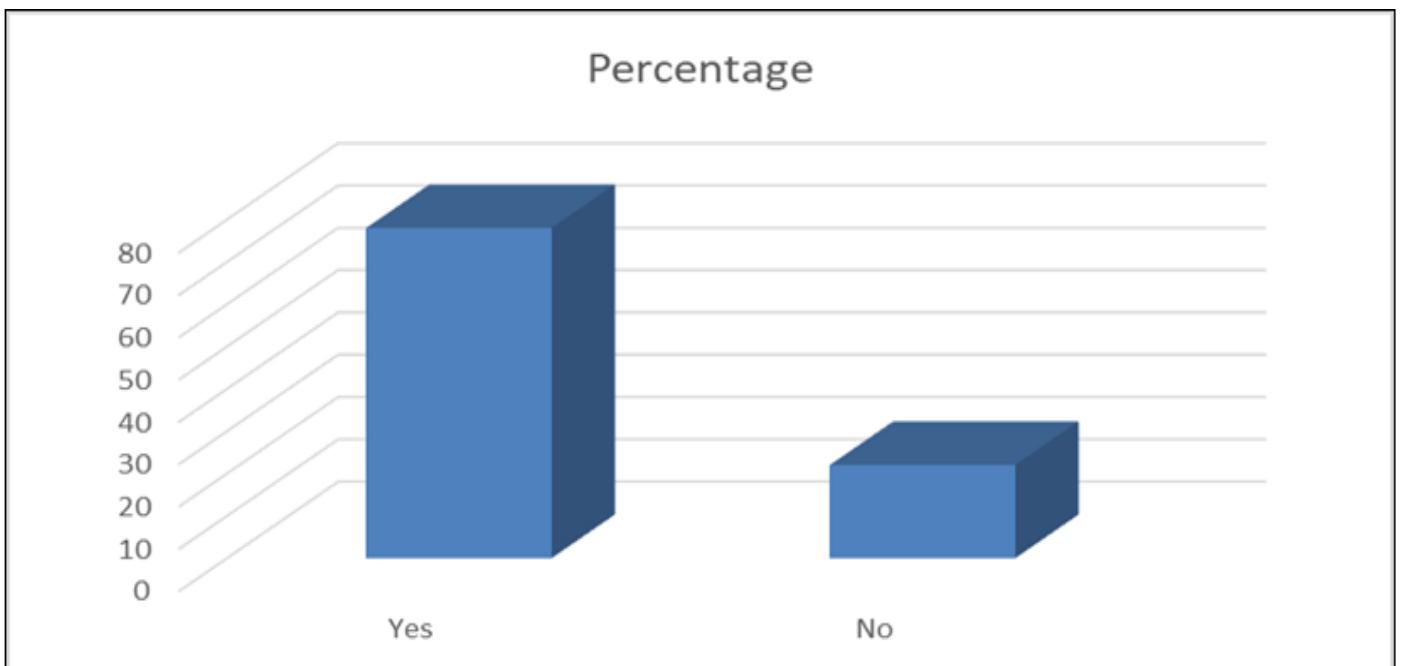


Fig 20 Do you Feel Physically and Mentally Tired During Working Hours

- Fig show (78%) they feel physically, mentally ,and psychologically tired, and(22%)not feel mentally, physically, and psychologically tired.



Table 21 Do you Take Stimulants such as Coffee and Tea, During Working Hours

Do you Take Stimulants such as Coffee and Tea, During Working Hours	Frequent	Percentage
Yes	35	70
No	15	30

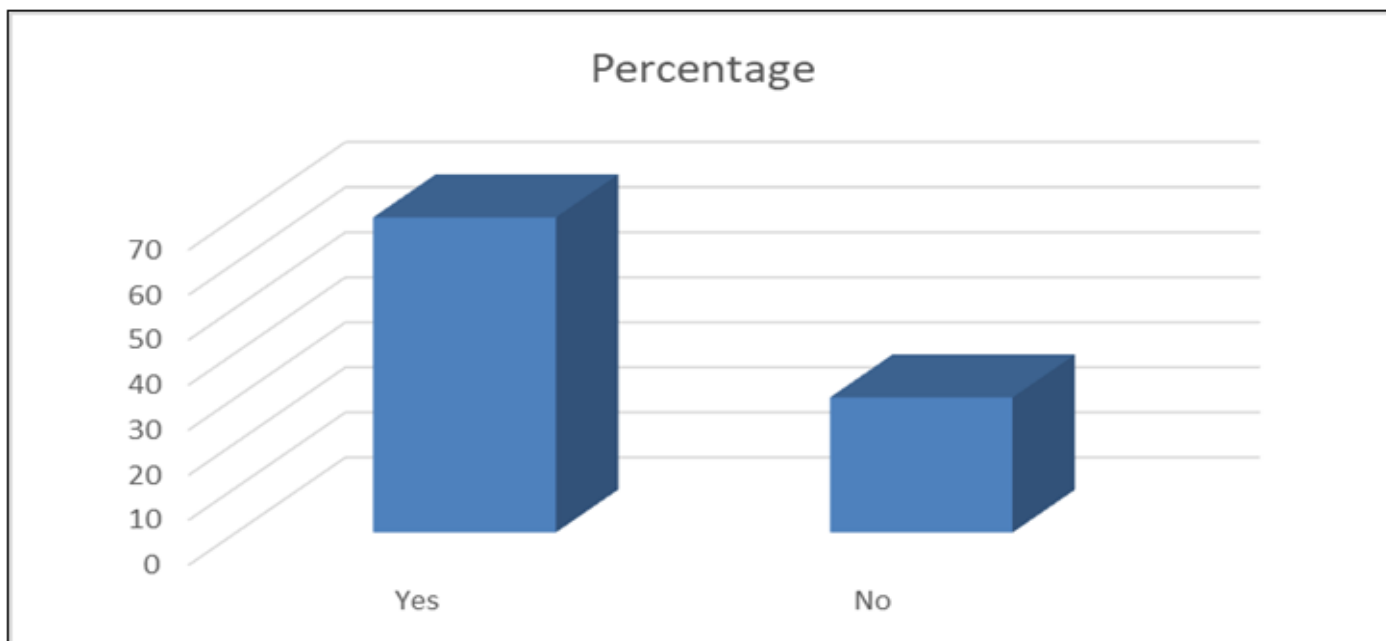


Fig 21 Do you Take Stimulants such as Coffee and Tea, During Working Hours

- Fig show (70%)of the participants in this studt drink stimulant such as coffee and tea,(30%)they don't drink stimulant such as coffee and tea.

Table 22 How much Cup of Coffee is Drink During Working Hours

How much Cup of Coffee is Drink During Working Hours	frequent	Percentage
1-3cup	32	64
4-5cup	3	6
6-7cup	0	0

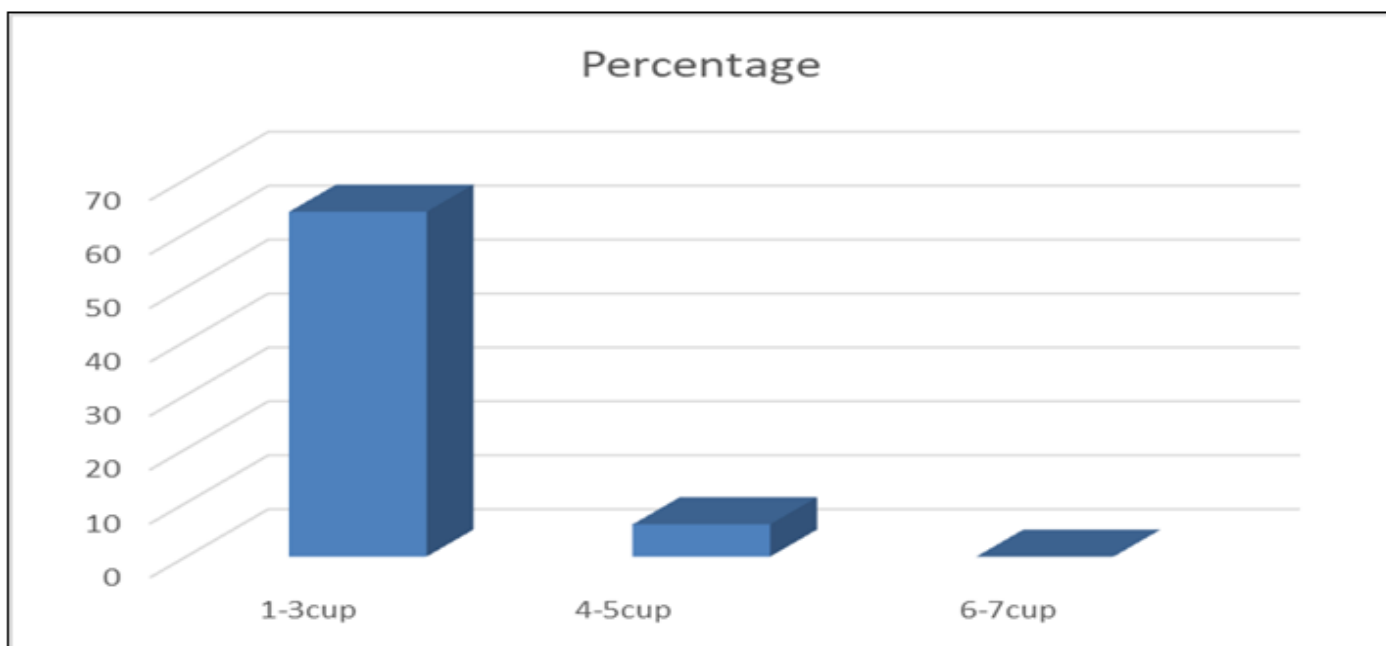


Fig 22 How much Cup of Coffee is Drink During Working Hours

- Fig show (64%) drink about 1-3 cups of coffee and tea, (6%) drink about 4-5 cups.

Table 23 Do you Sit for Long Hours During Work

Do you Sit for Long Hours During Work	Frequent	Percentage
Yes	43	86
No	7	14

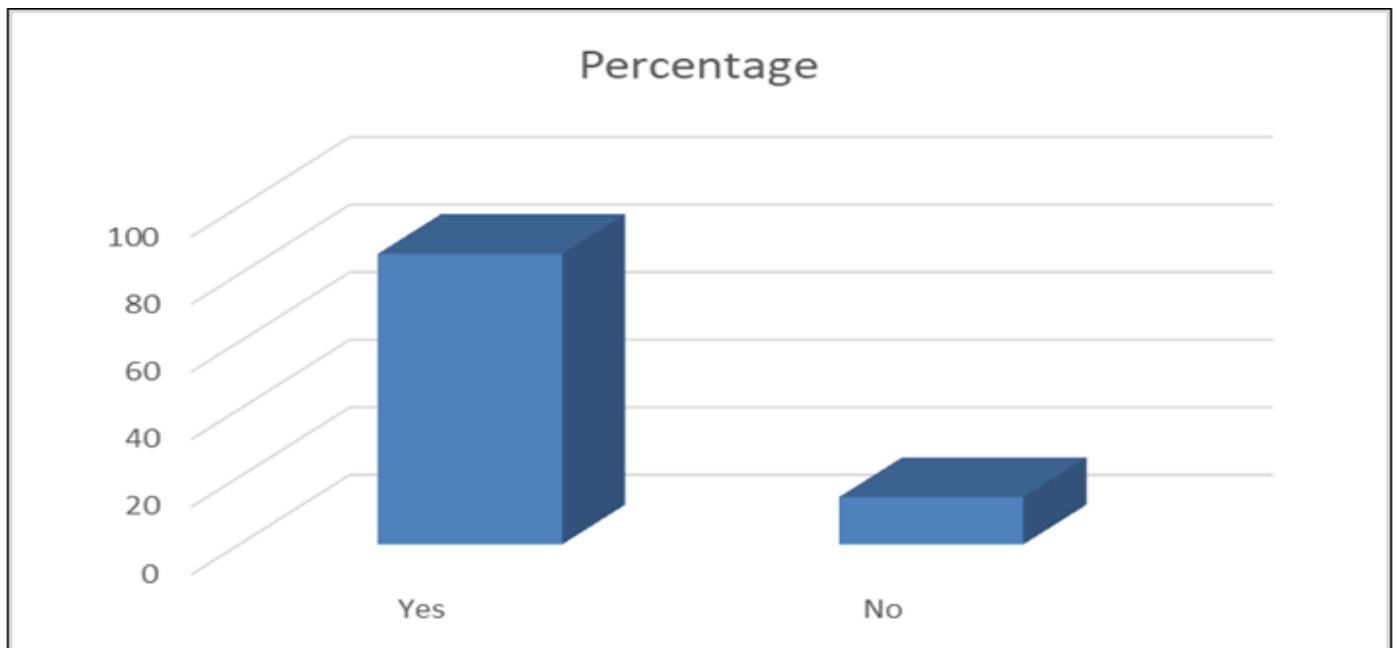


Fig 23 Do you Sit for Long Hours During Work

- Fig show that (86%) they sit for long hours,(14%) not sit for long hours.

Table 24 Do you Suffer from the Constipation

Do you Suffer from the Constipation	Frequent	Percentage
Yes	28	56
No	22	44

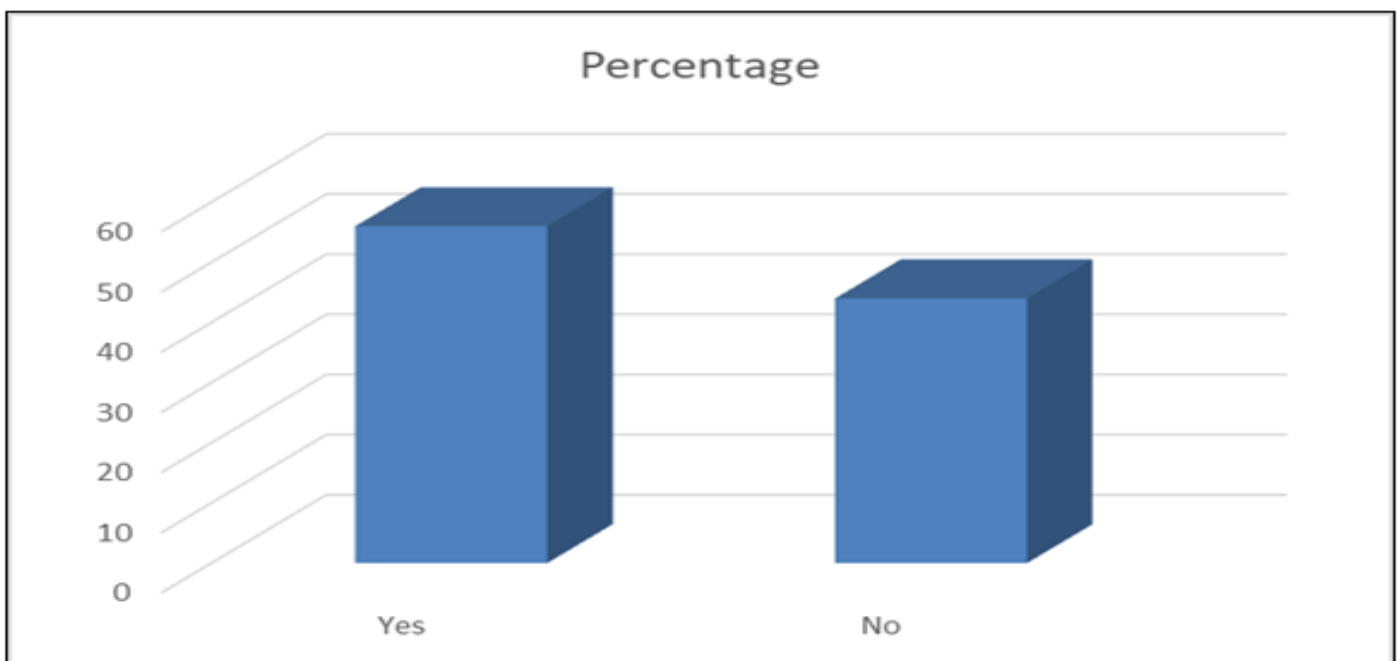


Fig 24 Do you Suffer from the Constipation

- Fig show that (56%)suffer from constipation ,and (44%) not suffer from constipation.

Table 25 Do you eat Meals Regularly During Working Hours

Do you eat meals Regularly During Working Hours	Frequent	Percentage
Yes	1	2
No	49	98

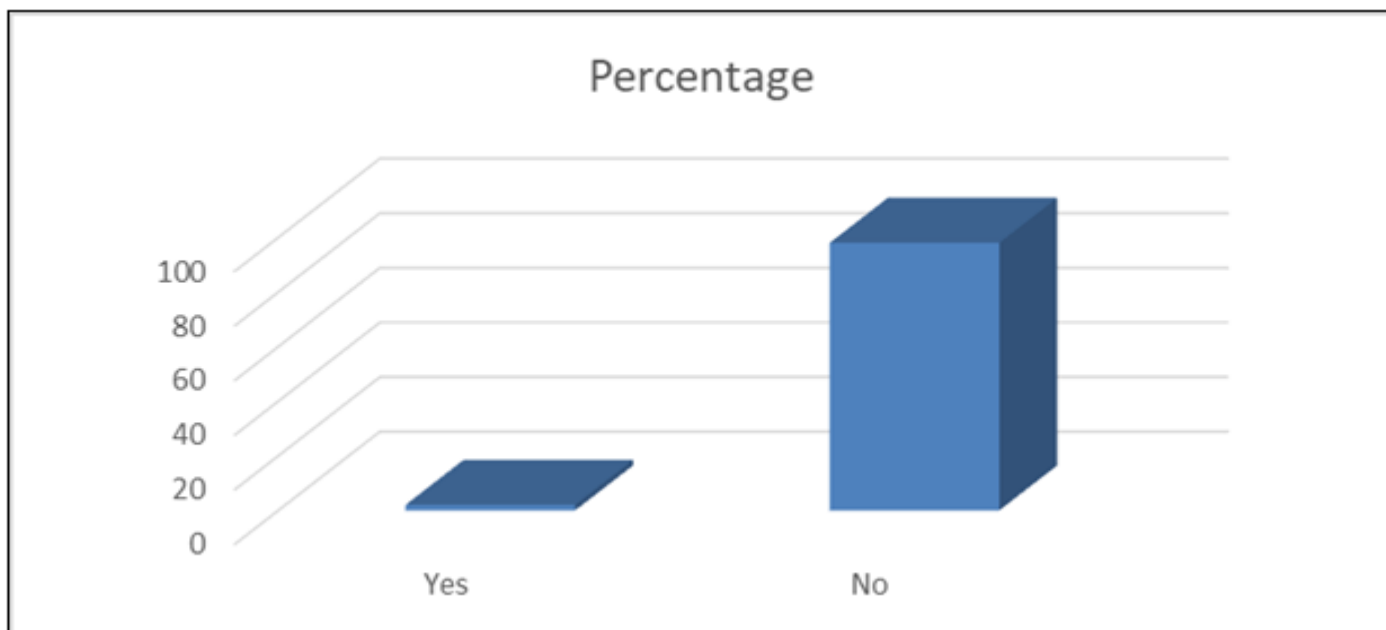


Fig 25 Do you eat Meals Regularly During Working Hours

- Fig show that (98%) of nurse participant in this study did not eat their meal regularly during long working hours, (2%) eat their meals regularly during long working hours.

Table 26 What is the Amount of Water they Drink During Working Hours

What is the Amount of Water they Drink During Working Hours	Frequent	Percentage
500ml	27	54
1 liter	15	30
2.7 liter	7	14
3.7liter	1	2

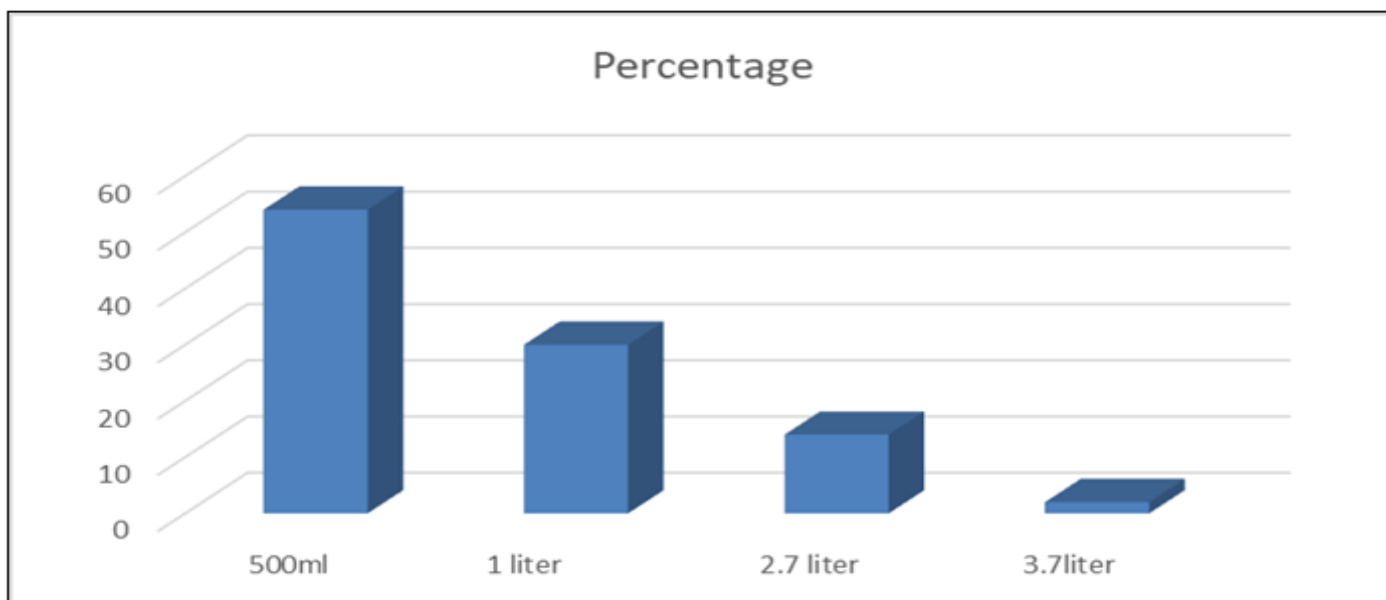


Fig 26 What is the Amount of Water they Drink During Working Hours

Fig show that (54%) drink about 500ML during long working hours,(30%) drink 1 liter during work ,(14%)drink 2,7liter,and(2%)drink 3,7liter

**B. Discussion:-**

The purpose of this study is to determine the effect of long working hours on the nurse and his performance at work

**➤ Discussion of the Findings**

Most of those who participated in the study were working for long hours, about 3-5 years, this study found that about 60% of workers who work long hours work hours affect their daily lives, and 32% affect their daily lives and work performance, study by (Dall'Ora C, Griffiths P, Ball J, Simon M, Aiken LH, 2015 and Caruso CC 2014 ) Their findings confirm longer working hours and shift for hospital nurses are associated with adverse outcomes for nurses, and increase risk for reduced performance on the job, also found that working for long hours causes errors for nurse, and the most errors were the delay in providing nursing care. there are other errors in this study made by nurses during long working hours, Represented in giving the patient the wrong medication or the wrong dose, study by ( Scott LD, Rogers AE, Hwang WT, Zhang. 2006, and Rogers AE, Hwang W, Scott LD, Aiken LH, Dinges DF [2004]) found Longer work duration increased the risk of errors and near errors and decreased nurses' vigilance, and nurses had over 3 times the odds of making an error when working 12 or more hours, compared with 8.5-hour shifts.

50% of nurse who work long hours are dissatisfaction with long hours and 64% of nurse work long hours due to schedule distribution within hospital according to the study by Dall'Ora C, Griffiths P, Ball J, et al) Nurses working shifts of  $\geq 12$ h were more likely to experience job dissatisfaction

This study found that long working hours cause insomnia for nurses, although the majority of nurses do not use sleeping pills, and their sleep hours are very short, ranging between 4-5 hours compared to the normal hours of sleep, numerous studies have reported nurses suffer from insomnia more often than other health care professionals and a quarter of shift worker nurses are suffering from shift work sleep disorder

This review verifies that a high prevalence of fatigue during working hours among nurses participating, and also 54% of the nurses do not have enough energy to work for long hours, which is reflected in the represented in providing nursing care, In the study by (Dorrian J, Lamond N, van den Heuvel C, Pincombe J, Rogers ) shows that nurses work for a long time without regular breaks and therefore experience increased fatigue.

This study found that long working hours affect the nurse's lifestyle represented by sitting for long hours, not eating regularly, consuming small amounts of water, and causing them to become constipated. Is similar to other study by ( Maryama S, and Morimoto K ) found that working long hours increases work stress and effect on life-style such as regularity of daily life and meal, Other study show that shift workers commonly complain of gastrointestinal symptoms including abdominal pain, gas, constipation, change in appetite, indigestion, and heartburn

## **CHAPTER FIVE RECOMMENDATIONS AND CONCLUSIONS**

➤ *Conclusion:-*

Long working hours greatly affect the nurses, and this effect is represented in dissatisfaction with work, the impact on daily life and their performance at work. It also causes insomnia and fatigue and affects their lifestyle represented by sitting for long hours, not drinking enough amounts of water, not eating meals and getting constipated.

➤ *Recommendation:*

If the hospitals have the policy of long working hours (16 hours), the nurses should be allowed to take some rest in the rest room with mutual understanding of co-workers. Working hours should be regulated. It should be reduced from sixteen hours to eight hours.

Maintaining eating meals on time, by specifying the times of meals by the hospital administration, and making it obligatory for nurses to eat meals on time, They should also be educated to drink water regularly.

Counselling and education about way of balancing home and work life should be given. Nurses may be allowed by the Nursing Administrator to participate while preparing the work schedule. It will motivate them and feel appreciated. Higher wages should be provided to compensate for longer working hours.

Education also emphasizes the importance of rest, nutritional food, emotional stability, and a work environment. It will make them satisfied and committed even though the working hours are longer than usual. Conduct periodic evaluations to examine the impact of work schedules on workers including performance, alertness, sleep, unintentional injury and worker errors.

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## APPENDIX



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
University of Gadarif



Faculty of medicine and health sciences

**Questionnaire on the impact of long working hours on the nurse and its performance to work**

**1- Age**

A-20-30 ( ) B-30-40 ( ) C-40and above ( )

**2-Sex :** A-male ( ) B-femal ( )

**3- Marital status**

A-unmarried ( ) B-married ( ) C-Absolut ( ) D-widow ( )

**4-qualification**

A-diploma ( ) B-bachelor ( ) C-master ( ) D-other ( )

**5-years of experience**

A-1-5years ( ) B-6-10years ( ) C-11-20years ( )

**6- what duration that spent at work for long hours**

A-month-years ( ) B-2-3years ( ) C-4years and above ( )

**7-how many hours do you spend at work**

A-8hours ( ) B-12hours ( ) C-17hours ( )

**8-do you feel satisfied with work for long hours:** A-Yes ( ) B-No ( )

**9-what at the reasons that you have to work for long hours**

A-to increas your income ( ) B-schedual of the distribution with the hospital ( )

C-lack of employees ( )

**10-how far do you cause long working houes of problem**

A-in your performance to work ( ) B-in your dialy life ( ) C-(a-b)together ( )

**11- do long working hours causes mistakes at work:** A-Yes ( ) B-No ( )

**-If Yes the mistakes is**

A-give the patient wrong medication ( ) B-give patient wrong dos ( )

C-delay in providing nursing care ( )

**12-in general you feel during long working hours you get**

A-eNough sleep ( ) B-lack of sleep ( ) C-Increas in sleep ( )

**13-do you feel that your sleep is Normal:** A-Yes ( ) B-No ( )

**14-how much dose it sleep during working hours**

A-4-5hours ( ) B-6-7hours ( ) C-7-8hours ( )

**15-do you suffer from insomnia after long working hours:** A-Yes ( ) B-No ( )

**If Yes -do you use the sleeing pills:** A-Yes ( ) B-No ( )

**16-do you suffer from fatigue during long working hours:** A-Yes ( ) B-No ( )

**17-do you have sufficient energy to work:** A-Yes ( ) B-No ( )

**18-do you feel physically tired during working hours:** A-Yes ( ) B-No ( )

**19-do you feel mentally tired during working hours**

A-Yes ( ) B-No ( )

**20-how much cup of coffee is drink during working hours**

A-1-3cup ( ) B-4-5cup ( ) C-6-7cup ( )

**22-do you sit for long hours during work**

A-Yes ( ) B-No ( )

**23-do you suffer from the costipation**

A-Yes ( ) B-No ( )

**24- Have you ever been injured during long working hours**

A-Yes ( ) B-No ( )

**-If the answer is yes, what is the type of injury?**

A- Ingestion with a contaminated syringe ( ) B - falling or sliding ( ) c-violence ( )