



A STUDY ON OCCUPATIONAL HEALTH ISSUES FACED BY NURSES IN CHENNAI

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Abstract: Nurses are an important part of the health system, and they face occupational health problems that are divided into biological, physical, chemical, and psychosocial problems. Nurses are also exposed to health problems such as hepatitis B, AIDS (acquired immunodeficiency syndrome), tuberculosis, cytotoxic drugs, needle stick injuries, back pain, and stress. It defines organic and inorganic disorders caused by occupational health problems and specifies the coping mechanisms of nurses for occupational health problems and the consent of nurses to written occupational health policies.

Keywords: Occupational health, problems, workplace, nurses.

INTRODUCTION:

Nurses are an integral part of the healthcare system. The current world scenario shows how nurses face various dangers or risks in the field of nursing. Occupational health problems occur due to various factors such as infectious diseases, plague, and psychological stress such as work-related pressure, shifts, etc. Nurses face a huge challenge to overcome health problems.

OBJECTIVES OF THE STUDY:

This project is mainly designed to identify health problems among hospital nurses.

Main Objectives:

1. to study the occupational health problems of nurses in Chennai.

Secondary objectives:

1. to investigate the prevalence of physical pain in nurses.
2. to study radiation levels that cause skin loss, hair loss, fainting, etc.
3. Find a solution to prevent these diseases.

NEED FOR THE STUDY:

The occupational health study investigated various health problems related to nurses in private hospitals and ways to overcome them. This reduces occupational health problems for nurses. Research improves nurses' understanding of the meaning of workplace issues.

Review of Literature

Landsbergis (1988) studied occupational health in nursing using the job demand management model. This leads to significantly higher job strain (job dissatisfaction, depression, and psychosomatic symptoms, as well as burnout) in jobs that combine high workload demands and low decision intervals.

Behar (1989) Symptoms reported by night shift nurses included sleepiness, sadness, and difficulty concentrating, as well as many complaints of accumulated fatigue and disruption of social life. It is theorized that shift work creates harmful pressures by

disrupting circadian rhythms, sleep, and family social life. This can lead to a decrease in the length and quality of sleep and an increase in fatigue and sleepiness.

Lewy (1991) Workplace factors that can contribute to stress include dealing with life-threatening illnesses, injuries, demanding patients, overwork, understaffing, and changing schedules. In many hospitals, nurses can feel isolated, tired, angry, and powerless. A nurse's behavior and attitude may deteriorate, which reduces work efficiency and increases absenteeism.

Garrett, Singer, and Banks (1992) Back injuries are another cause of occupational accidents in various occupations. Nursing is very physically demanding and requires heavy lifting, bending, twisting, and other manual handling tasks. Nursing activities such as lifting patients into beds, helping patients out of beds, transferring patients from beds, and carrying instruments are the most common causes of back pain.

According to **Udasin and Gouchfeld (1994)**, hepatitis B is the most common occupational disease. Infection can occur through the skin from contaminated needles and other sharp instruments.

Koller (1996) states that shift work, especially night shifts, has an impact on a person's entire life cycle, leading to health problems and stress. Shift workers are a population because they are exposed to psychological stress, desynchronization, and weakened coping mechanisms.

Loewenson (1997) Workers in the informal sector reported poor work arrangements, poor access to clean water and disinfection, ergonomic hazards, unsafe hand tools, and exposure to dust and chemicals.

Huanggz and Guox (2001) found that acute wounds remain a common exposure for nurses to blood-borne diseases. This shows that occupational health issues are still a challenge for health professionals in the workplace.

Shires (2003) states that the most common occupational health problem is low back pain in nurses, and doctors and nurses do not receive training on occupational health problems. Lack of training results in nurses not being able to protect nurses from such problems.

Gimeno, Feknor, Burau, and Delclos (2005) Lack of hazardous climate practices and poor safety practices lead to the exposure of hospital workers to occupational injuries.

Wayne (2007) states that nurses are difficult to expose to infectious diseases, toxic substances, back injuries, and radiation. They are prone to problems like stress and workplace violence.

Juibari, Sanagu, and Farokhi (2010) investigated the relationship of ergonomic knowledge with occupational health among nursing staff. The conclusion of this study confirmed that a significant proportion of nursing staff suffered from minor occupational injuries and musculoskeletal symptoms. According to this, the current challenges are also due to the lack of humanistic thinking in the design of work systems because ergonomics is not yet a requirement in the life of the organization.

According to **Asa, Marcus, and Jones (2013)**, safety culture reflects the safety-related attitudes, values, and behaviors of individuals, groups, and organizations. Safety management refers to formal safety practices and responsibilities documented in a safety management system. Asa et al. (2013) **show** that organizations with well-developed functional and proactive occupational health and safety management are likely to experience fewer occupational accidents and injuries.

RESEARCH METHODOLOGY:

Research methodology is primarily needed to design the research process and the plans and tools used for the project objectives. Research methodology helps find the problems facing nurses. This descriptive research methodology is designed to investigate occupational health issues among nurses in Chennai.

RESEARCH DESIGN:

Descriptive research design

Descriptive studies are studies that are used to accurately describe the participants. Simply put, a descriptive study is a description of the people in the study.

SAMPLING TECHNIQUE:

Convenience sampling method

Convenience sampling is one type of non-probability sampling method. A convenience sample consists of people who are easily accessible.

SAMPLE SIZE:

Sample size: 105

Study Period: 3 months

Study Location and Target Persons: Chennai City

HYPOTHESIS FRAMEWORK:

H0: null hypothesis (there is no significant relationship between variables).

H1: Alternative hypothesis (there is a significant relationship between variables)

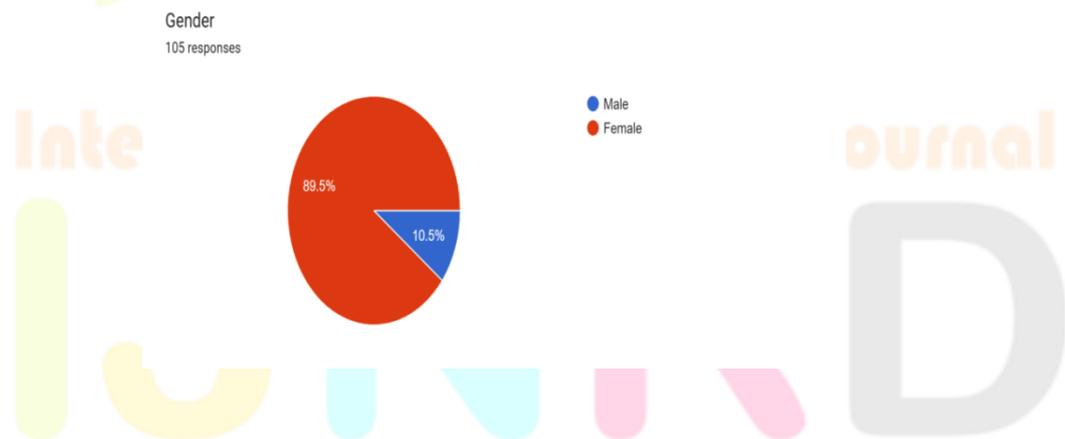
After analyzing the data, hypothesis testing is done. This leads to the acceptance or rejection of the hypothesis.

Tools for analysis:**Frequency analysis:**

Frequency analysis is a descriptive statistical method that provides the frequency of each response selected by the respondents.

DATA ANALYSIS AND INTERPRETATION:**gender of the respondents**

Gender	No. of respondents	Percentage
Male	11	10.5%
Female	94	89.5%
Total	105	100%

Source: Primary data**Interpretation**

From the above table, it is interpreted that the number of male respondents is 10.5% and the number of female respondents is 89.5%.

Inference

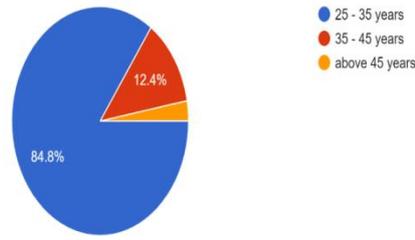
The majority (89.5%) of the respondents are female.

age of the respondents

Age	No. of respondents	Percentage
25 – 35 years	89	84.8%
35 – 45 years	13	12.4%
Above 45 years	3	2.9%
Total	105	100%

Source: Primary data

Age
105 responses



Interpretation

According to the above table, the number of respondents between the ages of 25 and 35 is 84.8%, those between the ages of 35 and 45 are 12.4%, and those over the age of 45 are 2.9%.

Inference

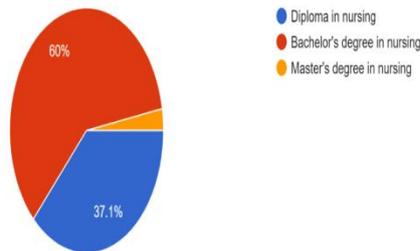
The majority (84.8%) of respondents are 25–35 years old.

Educational qualifications of the respondents

Education	No. of respondents	Percentage
Diploma in nursing	39	37.1%
Bachelor’s degree in nursing	63	60%
Master’s degree in nursing	3	2.9%
Total	105	100%

Source: Primary data

Education
105 responses



Interpretation

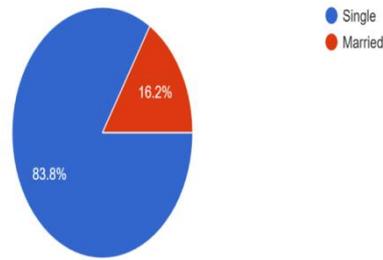
From the above table, it is interpreted that 60% of the respondents' educational qualification is a bachelor’s degree in nursing, 37.1% of the respondents' educational qualification is a diploma in nursing, and 2.9% of the respondents' educational qualification is a master’s degree in nursing.

Inference

The majority (60%) of the respondents' educational qualification is a bachelor’s degree in nursing.

Marital status of the respondents

Marital status	No. of respondents	Percentage
Single	88	83.8%
Married	17	16.2
Total	105	100%

Source: Primary dataMarital status
105 responses**Interpretation**

From the above table, it is interpreted that 83.8% of the respondents' marital status is single and 16.2% of the respondents' marital status is married.

Inference

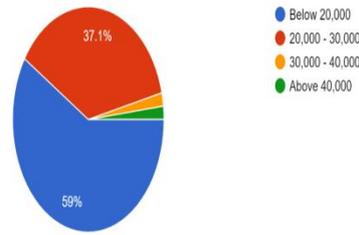
The majority (83.8%) of the respondent's marital status is single.

Income level of the respondents

Income level	No. of respondents	Percentage
Below 20000	62	59%
20000 – 30000	39	37.1%
30000 – 40000	2	1.9%
Above 40000	2	1.9%
Total	105	100%

Source: Primary data

Income level
105 responses



Interpretation

From the above table, it is interpreted that 59% of the respondent's income level is below 20,000, 37.1% of the respondent's income level is between 20,000 and 30,000, and 1.9% of the respondent's income level is between 30,000 and 40,000 and above 40,000

Inference

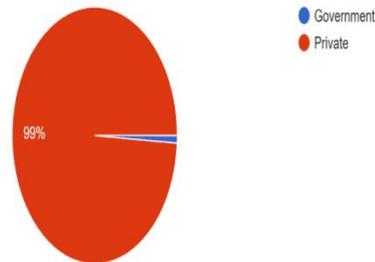
The majority (59%) of the respondents' income levels are below 20,000.

Type of hospital

Type of hospital	No. of respondents	Percentage
Government	1	1%
Private	104	99%
Total	105	100%

Source: Primary data

Type of hospital
105 responses



Interpretation

From the above table, it is interpreted that 99% of the respondents' type of hospital is a private hospital, and 1% of the respondents' type of hospital is a government hospital.

Inference

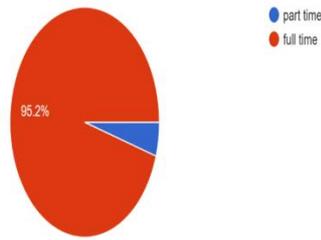
The majority (99%) of the respondents' type of hospital is a private hospital.

Working hours

Working hours	No. of respondents	Percentage
Part time	5	4.8%
Full time	100	95.2%
Total	105	100%

Source: Primary data

Working hours
105 responses



Interpretation

From the above table, it is interpreted that 95.2% of the respondents' working hours are full time, and 4.8% of their working hours are part time.

Inference

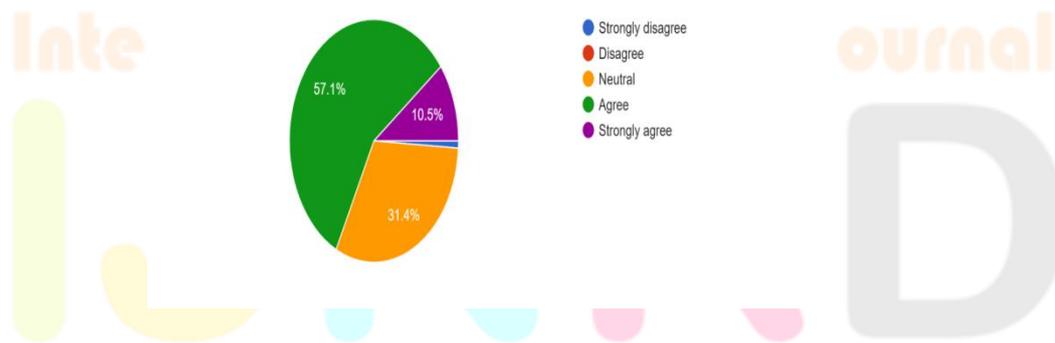
The majority (95.2%) of the respondents' working hours are full-time.

Do you agree that proper training has been given in your educational institution?

Do you agree that proper training has given in your educational institution?	No. of respondents	Percentage
Strongly disagree	0	0%
Disagree	0	0%
Neutral	33	31.4%
Agree	60	57.1%
Strongly agree	12	11.4%
Total	105	100%

Source: Primary data

Do you agree that proper training has given in your educational institution?
105 responses



Interpretation

From the above table, it is interpreted that 57.1% of the respondents' proper training is agreeable, 10.5% of the respondents' proper training is strongly agreeable, and 31.4% of the respondents' proper training is neutral.

Inference

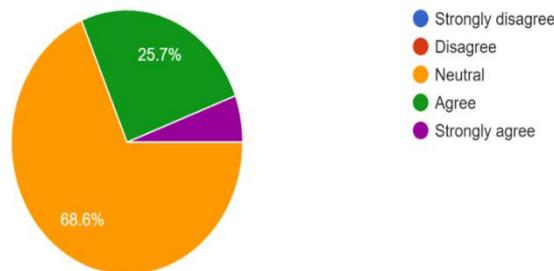
The majority of respondents (57.1%) agree that proper training is necessary.

Nursing is a job that requires dedication and interest.

The job role of nursing is dedicated/interested	No. of respondents	Percentage
Strongly disagree	0	0%
Disagree	0	0%
Neutral	72	68.6%
Agree	27	25.7%
Strongly agree	6	5.7%
Total	105	100%

Source: Primary data

The job role of nursing is dedicated/interested
105 responses



Interpretation

From the above table, it is interpreted that 68.6% of the respondents' interests are neutral, 25.7% of the respondents' interests are agreeing, and 5.7% of the respondents' interests are strongly agreeing.

Inference

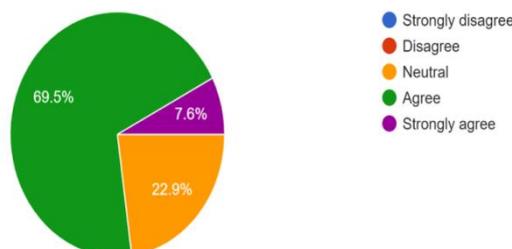
The majority (68.6%) of the respondents' interests are neutral.

Do you feel that a nurse's job is service-oriented?

Do you feel that nursing job is service oriented?	No. of respondents	Percentage
Strongly disagree	0	0%
Disagree	0	0%
Neutral	24	22.9%
Agree	73	69.5%
Strongly agree	8	7.6%
Total	105	100%

Source: Primary data

Do you feel that nursing job is service oriented?
105 responses



Interpretation

From the above table, it is interpreted that 69.5% of the respondents who are service-oriented agree, 22.9% of the respondents who are service-oriented are neutral, and 7.6% of the respondents who are service-oriented strongly agree.

Inference

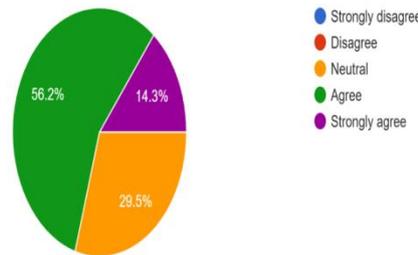
The majority (69.5%) of service-oriented respondents agree.

Working long hours makes you lose interest in the job.

Working for long hours makes you to lose your interest in doing the job	No. of respondents	Percentage
Strongly disagree	0	0%
Disagree	0	0%
Neutral	31	29.5%
Agree	59	56.2%
Strongly agree	15	14.3%
Total	105	100%

Source: Primary data

Working for long hours makes you to lose your interest in doing the job.
105 responses



Interpretation

From the above table, it is interpreted that 56.2% of the respondents who lose interest in doing the job are agreeing, 29.5% of the respondents who lose interest in doing the job are neutral, and 14.3% of the respondents who lose interest in doing the job are strongly agreeing.

Inference

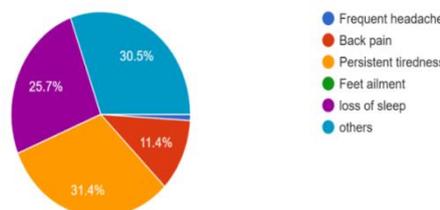
The majority of respondents (56.2%) agree that they have lost interest in doing their job.

Are you experiencing any of the following physical problems?

Are you experiencing any of the following physical problems?	No. of respondents	Percentage
Frequent headache	1	1%
Back pain	12	11.4%
Persistent tiredness	33	31.4%
Feet ailment	0	0%
Loss of sleep	27	25.7%
Others	32	30.5%
Total	105	100%

Source: Primary data

Are you experiencing any of the following physical problems?
105 responses



Interpretation

From the above table, it is interpreted that 31.4% of the respondents' physical problems are persistent tiredness, 30.5% of the respondents' physical problems are others, 25.7% of the respondents' physical problems are loss of sleep, 11.4% of the respondents' physical problems are back pain, and 1% of the respondents' physical problems are frequent headaches.

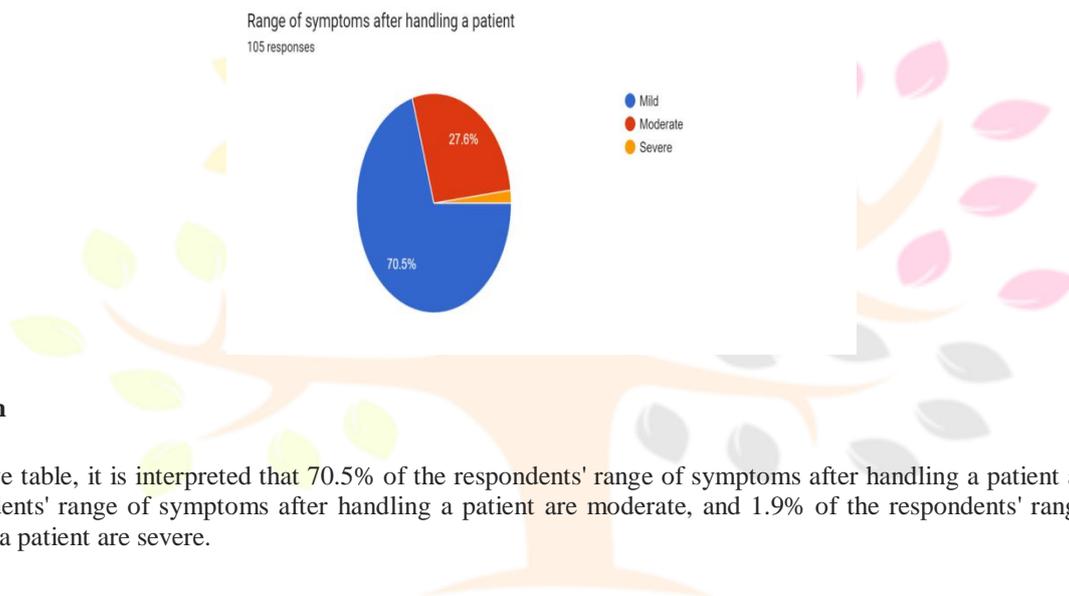
Inference

The majority (31.4%) of the respondents' physical problems are related to persistent tiredness.

range of symptoms after handling a patient

Range of symptoms after handling a patient	No. of respondents	Percentage
Mild	74	70.5%
Moderate	29	27.6%
Severe	2	1.9%
Total	105	100%

Source: Primary data



Interpretation

From the above table, it is interpreted that 70.5% of the respondents' range of symptoms after handling a patient are mild, 27.6% of the respondents' range of symptoms after handling a patient are moderate, and 1.9% of the respondents' range of symptoms after handling a patient are severe.

Inference

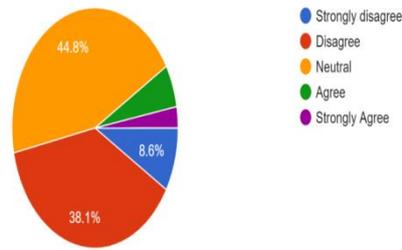
The majority (70.5%) of the respondents' range of symptoms after handling a patient are mild.

The number of skin diseases will be higher while working in radiation or operating rooms.

The number of skin disease will be more while working in radiation/operational rooms.	No. of respondents	Percentage
Strongly disagree	9	8.6%
Disagree	40	38.1%
Neutral	47	44.8%
Agree	6	5.7%
Strongly agree	3	2.9%
Total	105	100%

Source: Primary data

The number of skin disease will more while working in radiation/operational rooms.
105 responses



Interpretation

According to the above table, 44.8% of respondents will have more skin diseases while working in operational or radiation rooms; 38.1% will have more skin diseases while working in operational or radiation rooms; 8.6% will have more skin diseases while working in operational or radiation rooms; and 5.7% will have more skin diseases while working in operational or radiation rooms.

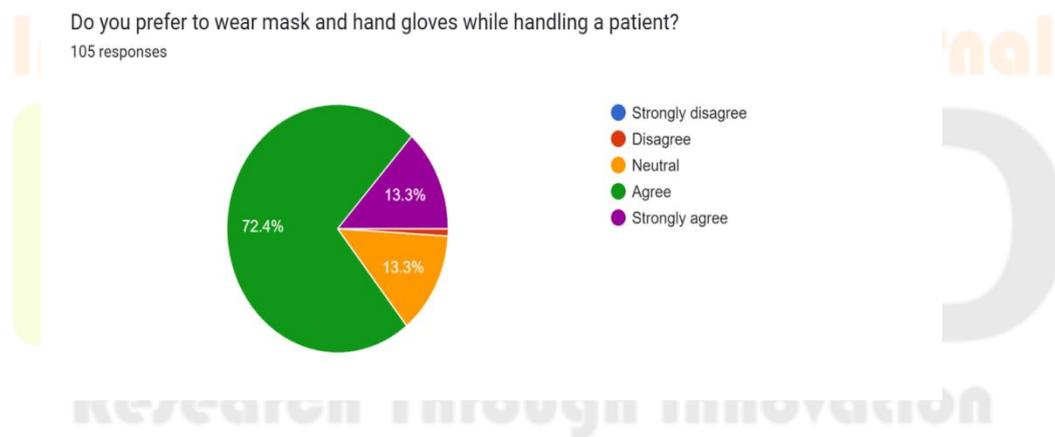
Inference

The majority (44.8%) of the respondents' number of skin diseases will be higher while working in operational or radiation rooms.

Do you prefer to wear a mask and hand gloves while handling a patient?

Do you prefer to wear mask and hand gloves while handling a patient?	No. of respondents	Percentage
Strongly disagree	0	0%
Disagree	1	1%
Neutral	14	13.3%
Agree	76	72.4%
Strongly agree	14	13.3%
Total	105	100%

Source: Primary data



Interpretation

From the above table, it is interpreted that 72.4% of the respondents who wear masks and hand gloves while handling a patient agree, 13.3% of the respondents who wear masks and hand gloves while handling a patient strongly agree, 13.3% of the respondents who wear masks and hand gloves while handling a patient are neutral, and 1% of the respondents who wear masks and hand gloves while handling a patient disagree.

Inference

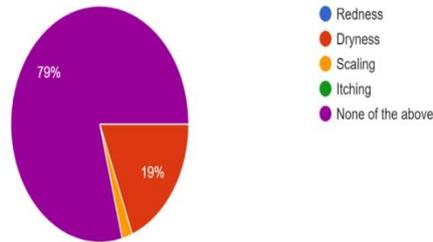
The majority (72.4%) of the respondents who wear masks and hand gloves while handling a patient agree.

Are you experiencing any of the following skin problems?

Are you experienced in any of the following skin problems	No. of respondents	Percentage
Redness	0	0%
Dryness	20	19%
Scaling	2	1.9%
Itching	0	0%
None of the above	83	79%
Total	105	100%

Source: Primary data

Are you experienced in any of the following skin symptoms?
105 responses



Interpretation

From the above table, it is interpreted that 79% of the respondents' skin symptoms are none of the above, 19% of the respondents' skin symptoms are dryness, and 1.9% of the respondents' skin symptoms are scaling.

Inference

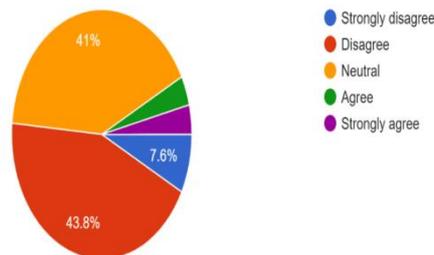
The majority (79%) of the respondents' skin symptoms are none of the above.

The major problem that occurs in the radiation rooms is hair loss. Do you agree with this?

The major problems which occur in the radiation rooms are hair loss. Do you agree with this?	No. of respondents	Percentage
Strongly disagree	8	7.6%
Disagree	46	43.8%
Neutral	43	41%
Agree	4	3.8%
Strongly agree	4	3.8%
Total	100	100%

Source: Primary data

The major problems which occurs in the radiation rooms are hair loss. Do you agree with this?
105 responses



Interpretation

From the above table, it is interpreted that 43.8% of the respondents' hair loss is disagreeable, 41% of the respondents' hair loss is neutral, 7.6% of the respondents' hair loss is strongly disagreeable, 3.8% of the respondents' hair loss is strongly agreeable, and 3.8% of the respondents' hair loss is agreeable.

Inference

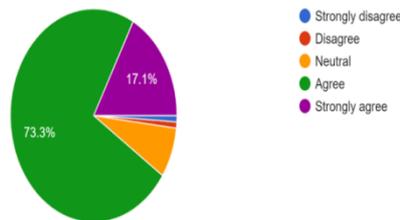
The majority of respondents (43.8%) disagree about hair loss.

Do you agree that the organization's management has taken measures to prevent the occupational health issues?

Do you agree that the organization/management has taken measures to prevent the occupational health issues?	No. of respondents	Percentage
Strongly disagree	1	1%
Disagree	1	1%
Neutral	8	7.6%
Agree	77	73.3%
Strongly agree	18	17.1%
Total	105	100%

Source: Primary data

Do you agree that the organization/management has taken measures to prevent the occupational health issues?
105 responses

**Interpretation**

From the above table, it is interpreted that 73.3% of the respondents' organizations or management have taken measures to prevent the occupational health issues; 17.1% of the respondents' organizations or management have taken measures to prevent the occupational health issues and are strongly agreeing; 7.6% of the respondents' organizations or management have taken measures to prevent the occupational health issues and are neutral; 1% of the respondents' organizations or management have taken measures to prevent the occupational health issues and are disagreeing; and 1% of the respondents' organizations or management have taken measures to prevent the occupational health issues and strongly disagree.

Inference

The majority (73.3%) of the respondents' organizations or management have taken measures to prevent the occupational health issues, they agree.

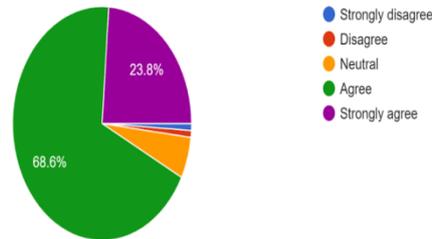
Do you agree that the organization or management has created awareness among the staff through seminars, courses, and posters?

Do you agree that organization/management has created awareness among the staff through seminars, courses & posters?	No. of respondents	Percentage
Strongly disagree	1	1%
Disagree	1	1%
Neutral	6	5.7%
Agree	72	68.6%
Strongly agree	25	23.8%
Total	105	100%

Source: Primary data

Do you agree that organization/management has created awareness among the staff through seminars, courses & posters.

105 responses



Interpretation

From the above table, it is interpreted that 68.6% of the respondents organizations or management have created awareness among the staff through seminars, courses, and posters; 23.8% of the respondents organizations or management have created awareness among the staff through seminars, courses, and posters; and 5.7% of the respondents organizations or management have created awareness among the staff through seminars, courses, and posters but are neutral; 1% of the respondents organizations or management have created awareness among the staff through seminars, courses, and posters but disagree, and 1% of the respondents organizations or management have created awareness among the staff through seminars, courses, and posters but strongly disagree.

Inference

The majority (68.6%) of the respondents' organizations and management have created awareness among the staff through seminars, courses, and posters.

FINDINGS, SUGGESTIONS AND CONCLUSIONS:

FINDINGS:

- The majority (89.5%) of the respondents are female.
- The majority (84.8%) of respondents are 25–35 years old.
- The majority (60%) of the respondents' educational qualification is a bachelor's degree in nursing.
- The majority (83.8%) of the respondent's marital status is single.
- The majority (59%) of the respondents' income levels are below \$20,000.
- The majority (99%) of the respondents' type of hospital is a private hospital.
- The majority (95.2%) of the respondents' working hours are full-time.
- The majority of respondents (57.1%) agree that proper training is necessary.
- The majority (68.6%) of the respondents' interests are neutral.
- The majority (69.5%) of service-oriented respondents agree.
- The majority of respondents (56.2%) agree that they have lost interest in doing their job.
- The majority (31.4%) of the respondents' physical problems are related to persistent tiredness.
- The majority (70.5%) of the respondents' range of symptoms after handling a patient are mild.
- The majority (44.8%) of the respondents' number of skin diseases will be higher while working in operational or radiation rooms.
- The majority (72.4%) of the respondents who wear masks and hand gloves while handling a patient agree.
- The majority (79%) of the respondents' skin symptoms are none of the above.
- The majority of respondents (43.8%) disagree about hair loss.
- The majority (73.3%) of the respondents' organizations or management have taken measures to prevent the occupational health issues, they agree.
- The majority (68.6%) of the respondents' organizations and management have created awareness among the staff through seminars, courses, and posters.

SUGGESTIONS AND RECOMMENDATIONS:

- All nurses face occupational health problems such as back pain, headaches, and constant fatigue.
- Nurses need breaks between long working hours because they feel unemployed.
- Organization and management can reduce night shift work to reduce the sleepiness of nurses.
- Protection of nurses against health problems, injuries, and other problems
- Training, seminars, and workshops can be organized to raise awareness of the issues. The training program must also include training.

CONCLUSION:

A significant number of nurses are regularly exposed to various occupational health problems. The workload, together with the work environment, negatively affects the health of nurses. Each hospital unit or department should document problems related to the work of nurses so that specific control measures can be added.

REFERENCES:

- Landsbergis (1988). Occupational health among nursing by job demand control model
- Behar (1989) Night shift working and disturbed social life: fatigue and sleepiness
- Lewy (1991). Work place factor leads to job performance and absenteeism
- Garrett singiser and banks (1992) Back injuries are the causes of occupational health issues
- Udasin and Gouchfeld (1994) Transmission ,contaminated needles and other sharp instruments
- Koller (1996) implications for entire living sphere, stress.
- Loewenson (1997) informal sector reported problems of the organization
- Huanggz and Guox (2001) sharp injuries – common cause of blood borne diseases to health professionals.
- Gimeno, Feknor, Burau & Delclos (2005) unsafe climates, poor practices and work place injuries
- Juibari, sanagu and farokhi (2010) knowledge of ergonomics and musculoskeletal symptoms
- Asa et al., Marcus and jones (2013) safety culture, work-related accidents and incidents.

QUESTIONNAIRE:1. **Name:**2. **Age:**

- 25–35 years
- 35–45 years
- Above the age of 45

3. **Gender:**

- Male
- Female

4. **Education:**

- Diploma in nursing
- Bachelor's degree in nursing
- Master's degree in nursing

5. **Marital status:**

- married
- unmarried

6. **Income level:**

- below 20,000
- 20,000-30,000
- 30,000-40,000
- Above 40,000

7. **Type of hospital:**

- Government
- Private

8. **Working hours:**

- part time
- full time

9. **Do you agree that proper training has been given in your educational institution?**

- Strongly agree



- Agree
- Neutral
- Disagree
- Strongly disagree

10. The job role of nursing is dedicated or interested.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

11. Do you ever feel your nursing job is service-oriented?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

12. Working for long hours of time makes you lose interest in doing the job.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

13. Have you experienced any of the following physical problems while at work?

- Frequent headache
- Back pain
- Persistent tiredness
- Feet ailment
- Loss of sleep
- Others

14. What is the range of symptoms after handling a patient?

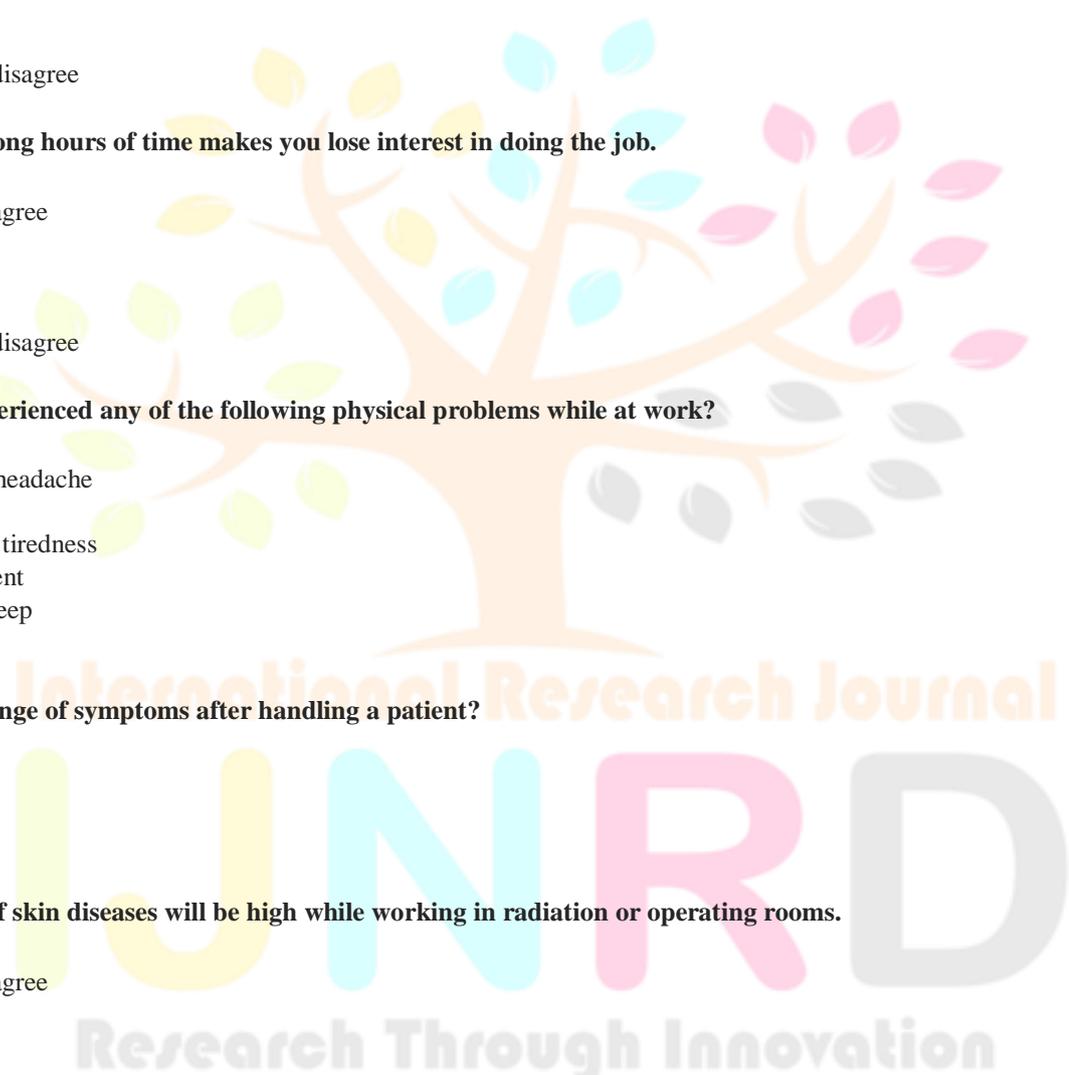
- Mild
- Moderate
- Severe

15. The number of skin diseases will be high while working in radiation or operating rooms.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

16. Do you prefer wearing a mask and hand gloves while handling a patient?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree



17. Are you experiencing any of the following skin symptoms?

- Redness
- Dryness
- Scaling
- Itching
- None of the above

18. The major problem that occurs in the radiation rooms is hair loss. Do you agree with this?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

19. The organization and management have taken various measures to prevent the occupational health issues.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

20. Do you agree that the organization or management has created awareness among the staff through seminars, courses, and posters?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

