

FINAL DISSERTATION PRESENTATION

**MBA HOSPITAL AND HEALTH
MANAGEMENT**

STUDENT DETAILS

Student Name: Dr. Neha Umashankar Verma
MBA Hospital And Health Management
Roll No: 1554
Batch: HM-27

PROJECT DETAILS

Title of the Dissertation

Analyzing impact of organizational and individual factors on infection control practices among nurses in tertiary care hospital.

University supervisor: Dr. Deepti Sharma

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INTRODUCTION



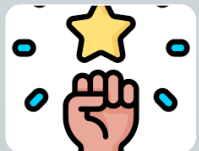
Infection management is a crucial component of healthcare that directly affects the patients outcomes and safety (Wasswa *et al.*, 2015)



Nurses play a pivotal role in preventing and controlling the transmission of infections within healthcare settings (Harun *et al.*, 2022)



Understanding the knowledge, practices, and challenges faced by nurses in infection control is essential for enhancing healthcare safety and quality (Godliness *et al.*, 2023)



Nurses are motivated regularly follow a positive attitude, value patient safety, and understand the necessity of infection control(Assefa,Alen and Adane, 2020)



Organizational elements are just as important in reducing infection as individual factors like knowledge and awareness(Ahmad Sabbah *et al.*, 2021)

NEED OF THE STUDY



India ranks among the top countries for hospital-acquired resistant infections (HARIs), with an estimated **9 million cases annually** (Oppong *et al.*, 2020)

Inefficient infection control practices can lead to increased healthcare costs due to prolonged hospital stays, additional treatments, and the need for isolation measures (Lee and Jun, 2022)

Studies in Indian hospitals have reported HAI prevalence ranging from **1.75 to 3.76 per 1000 patient-days**, with surgical site infections and pneumonia being the most common (Kangoya *et al.*, 2023)

Optimizing infection control practices through understanding organizational and individual factors can contribute to resource utilization efficiency (Sasapu, P and P, 2023)

Infection control is paramount for patient safety in healthcare settings and understanding the factors influencing their adherence is vital for maintaining a safe environment for patients (Rashmi and Kundapur, 2017)

AIM AND OBJECTIVES

Aim:

To investigate the relation between organizational structures, individual behaviors, and infection control practices among nurses in a tertiary care hospital setting in Bangalore.

Objectives:

1. To identify organizational and individual factors of infection control
2. To assess the organizational factors and individual factors and level of infection control practice of nurses
3. To analyse the relationship between organizational factors, individual factors and their impact on infection control practices

METHODOLOGY FOR EACH OBJECTIVE

S.NO.	OBJECTIVES	METHODOLOGY
1	To identify the organizational and individual factors affecting infection control	Literature review to identify the organizational and individual factors that are affecting the infection control measures.
2	To assess the organizational factors and individual factors and level of infection control practices of nurses	Structured Questionnaire and Check list from articles was used.
3	To analyze the relationship between organizational factors, individual factors and their impact on infection control practices of nurses	• Descriptive statistics. • Correlations between factors.

RESULTS OF OBJECTIVE I

A literature review was done to learn about organizational and individual factors :

Organizational factors	Factors	Variables	References
	1.Resource allocation	• This includes the accessibility of personal protective equipment (PPE), hand sanitizer, disinfectants, and other necessary supplies for proper hygiene • Sufficient manpower availability	(Lee and Jun, 2022)
	2. Effective communication and collaboration	• Presence of infection prevention committee • Updates and alerts regarding infection control	(Castro-Sánchez and Holmes, 2015)
	3. Policies and protocols	• Proper guidelines for infection control • Availability of SOP • Training and education about infection control	(Wasswa et al., 2015)

RESULTS OF OBJECTIVE I

Individual factors	Factors	Variables	References
	1. Nursing Professionalism	- Professionalism of nursing - The roles of nursing service	(Lee and Jun, 2022)
	2. Time Pressure	- Sufficient time to follow all infection control measures - Sufficient time to take care of patient along with infection control practices	(Lee and Jun, 2022)
	3. Knowledge	Knowledge about hand hygiene moments, personal protection, disinfectant and sterilization	(Kangoya et al., 2023)
	4. Attitude	Attitude about hand hygiene moments, personal protection, disinfectant and sterilization	(Mohan and Agarwal, 2020)

RESULTS OF OBJECTIVE 2

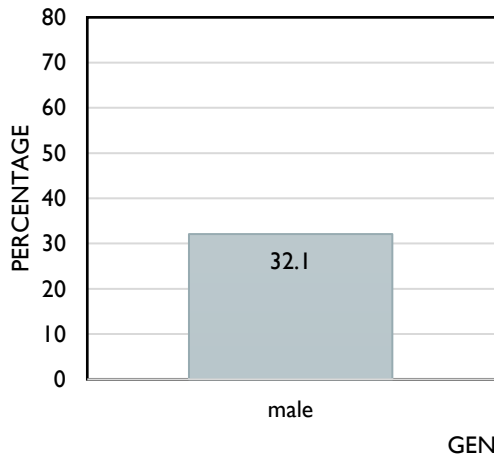
Structured validated questionnaire and check list (Oppong *et al.*, 2020), (Tarif *et al.*, 2022)

- Suggestion and correction had been taken-
- ✓ To add the questionnaire regarding training provided
- ✓ Few options of questionnaire were asked to change and keep it in range
- ✓ Not relevant questions were replaced by questions suggested by ICN
- Form had been circulated among nurses
- Practice of nurses had been accessed under the supervision of ICN and further continuing by me
- Pilot study has been done with 30 samples
- Cronbach alpha value is 0.8 for 35 questions

Cronbach's Alpha	Number of item
0.8	35

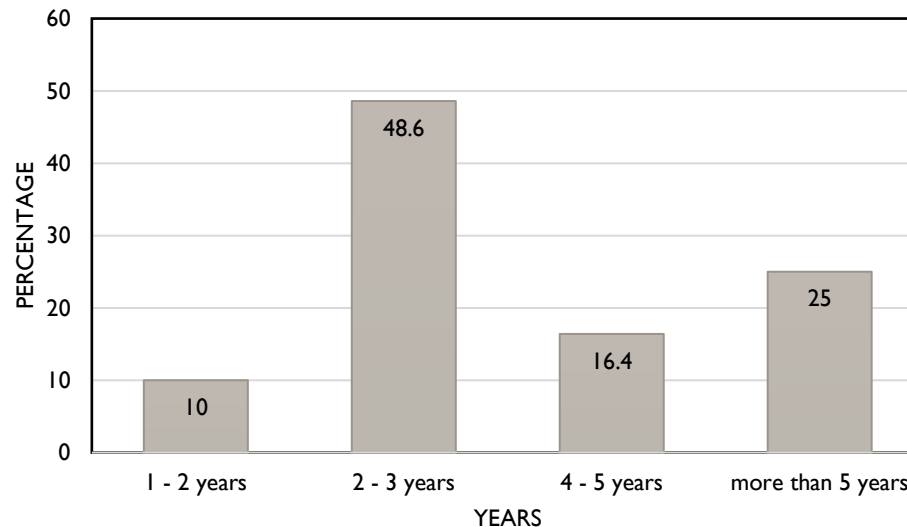
RESULTS OF OBJECTIVE 2

Gender Distribution



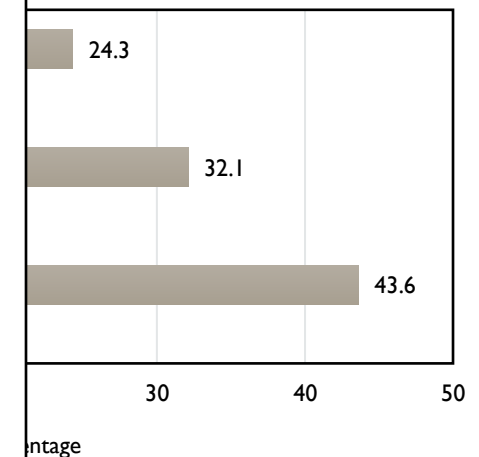
Interpretation: In the nurse's study population, female constitute the majority at 67.9%, while male constitute 32.1% of total sample population.

Years of experience



Interpretation: From the study population, highest number of respondents were having experience of 2 - 3 years with 48.6% followed by 25% of population were having experience of more than 5 years.

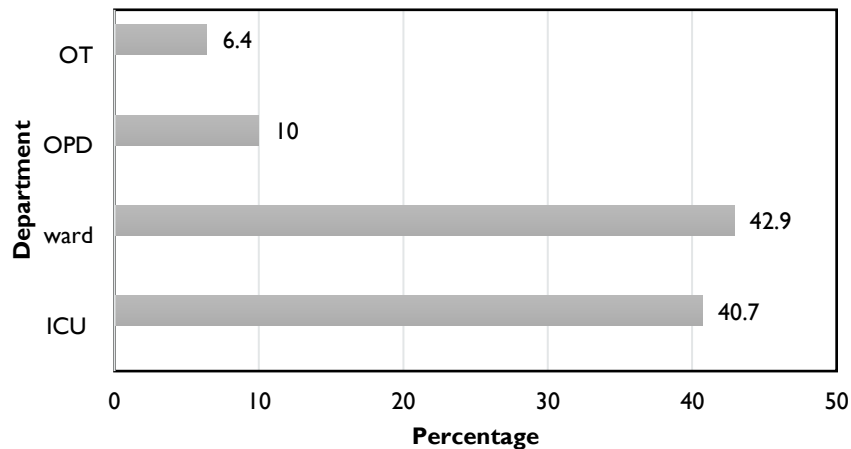
Age Distribution



Interpretation: Most of the respondents belong to the age group of 20 - 25 years (43.6%) followed by 26 - 30 years (32.1%). Only 24.3% of respondent belong to the age group of above 30 years.

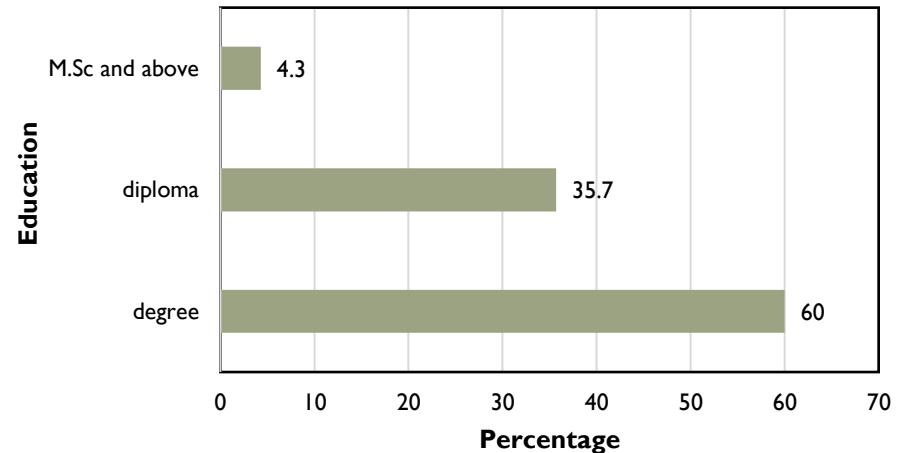
RESULTS OF OBJECTIVE 2

Department Distribution



Interpretation: Most of the respondent are from wards and ICU with 42.9% and 40.7% respectively. Very few respondents are from OPD and OT with 10% and 6.4% respectively of whole population.

Education Distribution

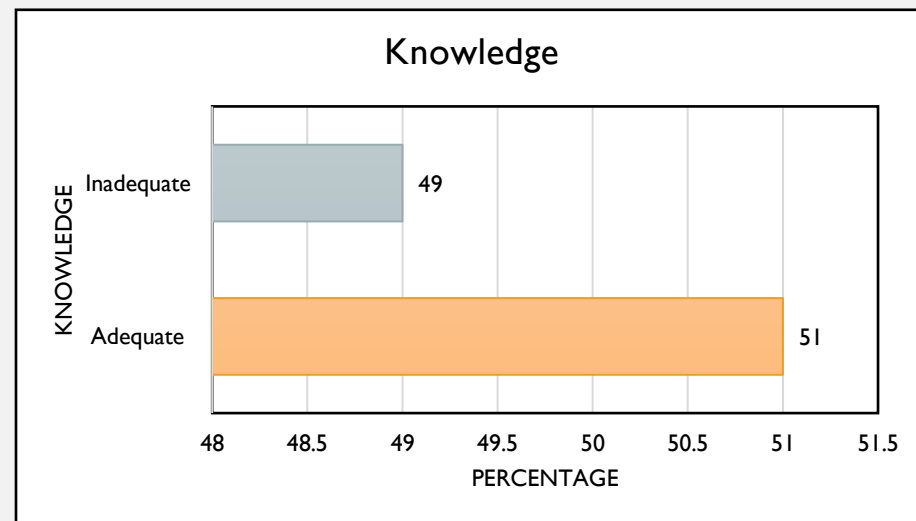


Interpretation: Most of the respondent were having basic degree of nursing with 60%, 35.7% were did diploma and only 4.3% of nurses were having education qualification of M.Sc. and above

RESULTS OF OBJECTIVE 2

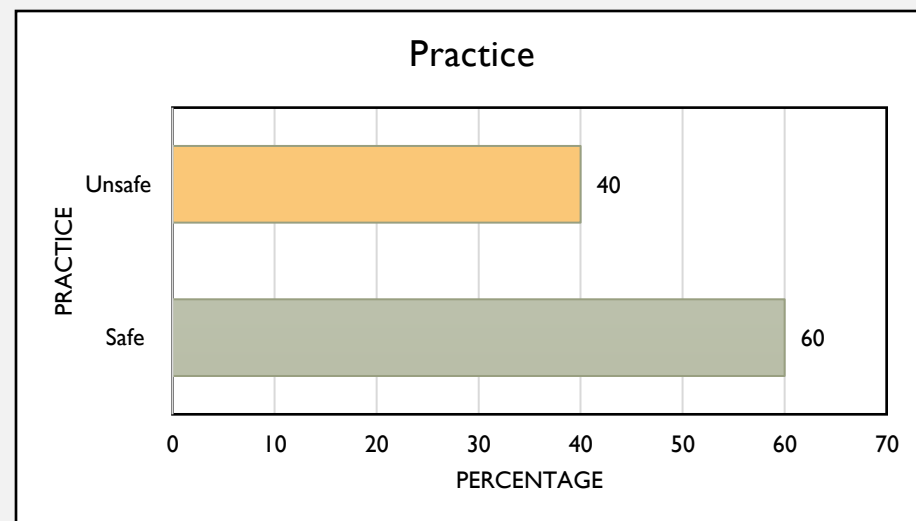
Knowledge	Mean	$\geq$ mean (Adequate)
	1.34	$\leq$ mean (Inadequate)

Interpretation: 51% of nurses were having adequate knowledge of infection control while 49% of them are having inadequate knowledge



Practice	Mean	$\geq$ mean (Safe)
	3.54	$\leq$ mean (Unsafe)

Interpretation: 60% of nurses were having safe practice of infection control



RESULTS OF OBJECTIVE 3

Hypothesis 1:

H0: There is no significant association between organizational and individual factors of infection control

H1: There is significant association between organizational and individual factors of infection control

Hypothesis 2:

H0: There is no significant association between resource allocation and practice of infection control

H1: There is a significant association between resource allocation and practice of infection control

Hypothesis 3:

H0: There is no significant association between nursing professionalism and practice of infection control

H1: There is a significant association between nursing professionalism and practice of infection control

Variables	Pearson correlation value (r)	Level of significance
Resource allocation and practice	-.190	0.024
Organizational and individual factors	-0.0745	0.3851

There is a strong correlation between organizational and individual factors of infection control with a coefficient value of 0.190 ($p < 0.05$). Hence, we accept alternate hypothesis and reject null hypothesis.

RESULTS OF OBJECTIVE 3

Hypothesis 4:

H0: There is no association between factors and age

H1: There is an association between factors and age

Hypothesis 5:

H0: There is no association between factors and qualification

H1: There is an association between factors and qualification

Hypothesis 6:

H0: There is no association between factors and training

H1: There is an association between factors and training

Demographic Variable	Factor	Chi-square statistic	p-value	Significance
Training	Resource allocation	58.948	<0.001	Yes
	Effective communication and collaboration	35.384	0.301	No
	Policies and protocols	58.932	<0.001	Yes
	Nursing professionalism	172.223	<0.001	Yes
	Time pressure	40.984	0.039	Yes
	Attitude	25.509	0.490	No
	Knowledge	29.236	0.009	No
	Practice	70.936	<0.001	Yes
		28.269	0.005	Yes
	Practice	75.809	<0.001	Yes

Accepting H0 at the level of significance for time pressure and attitude with training and reject H1. This means there is significant relationship between training and resource allocation, policies and protocols, nursing professionalism, knowledge and practice of infection control.

KEY RESULTS

- 51% of nurses are having adequate knowledge of infection control while 60% are doing safe practice of infection control
- There is a significant association between organizational and individual factors of infection control
- Age and practice have been found to have significant relationship
- Training was having significant association with resource allocation, policies and protocols, time pressure, knowledge and practice of infection control
- Qualification have shown significant association with resource allocation, nursing professionalism and time pressure
- There is association between resource allocation and practice of infection control
- Resource allocation and training have shown significant impact on practice of infection control

CONCLUSION

- ❖ The study found that strong organizational support, including proper resource allocation and training programs, is crucial for nurses to properly follow infection control procedures
- ❖ The strong correlation between organizational and individual factors suggests that both personal and systemic elements, is essential for effective infection control
- ❖ While factors like age and education played a minor role, well-resourced environments with ongoing training were the most significant influence on practice
- ❖ Despite some nurses having inadequate knowledge or unsafe practices (49% and 40% respectively), the overall findings highlight the importance of a supportive hospital culture for effective infection control

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Thank You