

“A STUDY TO ASSESS THE EFFECTIVENESS OF BEHAVIOURAL CHANGE COMMUNICATION ON NOSOCOMIAL INFECTION IN TERMS OF KNOWLEDGE AMONG HOUSEKEEPING STAFF IN SELECTED HOSPITAL AT RANCHI, JHARKHAND.”

Nursing Science

Ms. Abha Horo

Clinical Tutor, College of Nursing, RIMS, Ranchi, Jharkhand.

Ms. Kanchan Priya Soy

M.Sc. Nursing Scholar, College of Nursing, Institute of Liver and Biliary Sciences, Vasant Kunj, New Delhi.



ABSTRACT

“Nosocomial infection” is defined as an infection developing in patients after admission to the hospital, which was neither present nor in the incubation period at the time of hospitalization. The present study aims to find out the effectiveness of behavioral change communication in terms of knowledge score among housekeeping staff in selected hospital at Ranchi, Jharkhand and to find out the association between pretest knowledge score with selected demographic variables at selected hospital at Ranchi Jharkhand. The quantitative approach with Quasi experimental study was undertaken to assess the effectiveness of behavioral change communication on Nosocomial Infection among housekeeping staff at selected hospital at Ranchi, Jharkhand. 50 housekeeping staff were selected by convenient sampling technique and data was collected by using knowledge based questionnaire. The data obtained was analyzed by Descriptive and Inferential statistics in terms of mean, mean percentage and standard deviation and chi square test. Data was analyzed by using 16th version of SPSS software. The analysis of pretest data revealed that 0% were excellent, 18% were good, 34% were acceptable, 28% were questionable, 20% were poor and 0% were unacceptable but after giving behavioral change communication post test data revealed that 6% were excellent, 44% were good, 32% were acceptable, 18% were questionable, 0% were poor and 0% were acceptable. Therefore, it can be concluded that there is no significant association between pretest level of knowledge with these demographic variables expect for source of previous knowledge. The outcome of the present study identified and concluded that behavioral change communication there is significant improvement on housekeeping staff knowledge.

KEYWORDS

Nosocomial infection, SPSS software.

INTRODUCTION

“INFECTIONS ARE MOST OFTEN TRANSMITTED FROM PATIENT TO PATIENT ON THE HANDS OF HEALTHCARE WORKERS...”
(DR.WILLIAM JARVIS)

A hospital is no place to be sick. A hospital is an institution where the sick or injured are given medical or surgical care. Developing hospital acquired by a patient during a hospital stay. Most infections that become clinically evident after 48 hours of hospitalization are considered hospital acquired infections which include fungal and bacterial infections and are aggravated by the reduced resistance of individual pattern.

The infections cause the patient's physical and mental sickness that makes patient stay longer in the hospital without necessary.
(MRS.SASMITADAS, 2005)

Nosocomial infections are the serious global public health issues that causes the suffering of 1.4 million people at any given time. It is a major source morbidity and mortality and is a monetary burden on patients. Nosocomial or healthcare associated infections appear in a patient under medical care in the hospital or other healthcare facility which was absent at the time of admission. This infection can occur during healthcare delivery for other diseases and even after the discharge of the patient.

OBJECTIVES

1. To find out the effectiveness of Behavioral Change Communication in terms of knowledge score among housekeeping staff in selected hospital Ranchi, Jharkhand.
2. To find out the association between the pre-test knowledge score with selected demographic variables in selected hospital Ranchi, Jharkhand.

HYPOTHESIS

- H1:** There will be a significant difference in the pre-test and post-test knowledge score of housekeeping staff regarding nosocomial infection.
H2: There will be a significant association between the knowledge with selected demographic variable.

MATERIAL AND METHOD

Research Approach

This study is intended to assess the effectiveness of behavioural change communication on nosocomial infection in terms of knowledge among housekeeping staff in selected hospital Ranchi, Jharkhand. Hence Quantitative research approach was used for the present study.

SCHEMATIC REPRESENTATION OF RESEARCH DESIGN

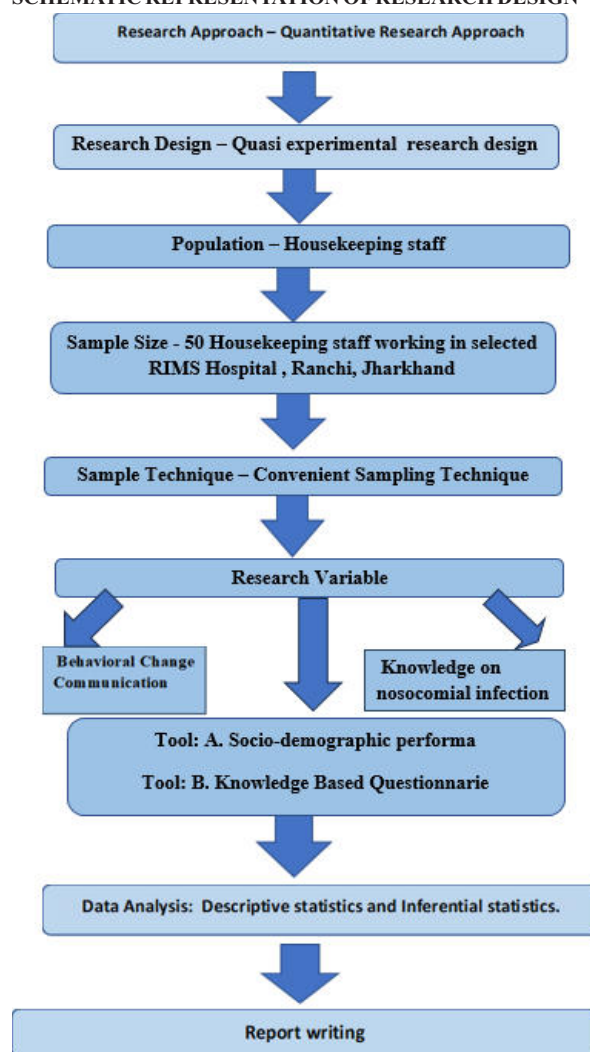


Figure2: Schematic Representation Of Research Design

Research design used for this study is Quasi Experimental research design.

Research Variables

Independent Variables – Behavioral change communication on nosocomial infection.

Dependent Variables- Knowledge on nosocomial infection.

Demographic Variables- Age, Gender, Marital Status, Educational qualification, Work experience, Area of posting, Sources of previous knowledge about Nosocomial Infection and attended any training programme.

Setting Of The Study

Study was conducted with 50 Housekeeping staff working selected in RIMS Hospital Ranchi, Jharkhand.

Population

The population for the present study refers to housekeeping staff of RIMS Hospital, Ranchi, Jharkhand.

Sampling Procedure

Sampling Technique: Convenient sampling technique was adopted for the study.

Sample Size: The sample size of the present study consisted of total 50 Housekeeping staff of RIMS hospital, Ranchi.

Sampling Criteria: Sampling criteria also referred to as eligibility criteria; include the list of characteristics essential for the eligibility or membership in the target population.

Research Criteria

Inclusion Criteria

- Housekeeping staffs who are willing to participate in study.
- Housekeeping staffs who will be present at the time of study.
- Housekeeping staffs who are able to understand and read Hindi.

Exclusion Criteria

- Housekeeping staffs who are not present at the time of study.
- Housekeeping staffs who are sick at the time of study.

TOOLS FOR DATA

The tools used for the study were:

SECTION A: Socio-Demographic Data

SECTION B: Knowledge based Questionnaire

SECTION A

SOCIO-DEMOGRAPHIC DATA

Instructions:

- Answer all the questions. Select the correct option applicable to you.
- This question paper contains 2 section-A & section-B
- Section-A demographic data.
- Section-B knowledge questionnaire.
- 1' mark will be provided for every correct answer and '0' mark will be given for wrong answer.

Note: This question is for research purpose only. Kindly provide your genuine response.

1. Age:

- a) 18-25 years
- b) 26-35 years
- c) 36-45 years
- d) 46 years and above

2. Gender:

- a) Male
- b) Female
- c) Transgender

3. Marital Status:

- a) Married
- b) Unmarried
- c) Window/Windower

d) Separated
e)

4. Educational qualification:

- a) No formal education
- b) Primary education
- c) Secondary and higher secondary
- d) Under graduate

5. Work experience:

- a) Less than 1 year
- b) 1 to 2 years
- c) 3 to 4 years
- d) More than 5 Years

6. Area of posting:

- a) General Ward
- b) Out Patient Department (OPD)
- c) Intensive Care unit (ICU)
- d) Operation Theatre (OT)

7. Sources of previous knowledge about Nosocomial Infections:

- a) Printed Resources
- b) Media
- c) Peer Group
- d) Healthcare providers

8. Attended any training programme:

- a) No
- b) Yes (if yes then specify)

SECTION-B

KNOWLEDGE BASED QUESTIONNAIRES

1. Nosocomial infections are:-

- i. Hospital acquired infections
- ii. Infections occurs through home
- iii. Infections that occurs everywhere
- iv. None of these

2. Nosocomial infections occurs within:-

- i. 48 hours
- ii. 24 hours
- iii. 72 hours
- iv. 12 hours

3. What are the different modes of transmission of nosocomial infections?

- i. Through contact
- ii. Airborne
- iii. Injections
- iv. All of the above

4. Transmission can be through:-

- i. Direct and indirect contact
- ii. Blood
- iii. Water
- iv. All of the above

5. Micro-organism can enter the body through:-

- i. Oily Skin
- ii. Dry Skin
- iii. Broken Skin
- iv. Moist Skin

6. Personal Protective equipments used on duty:-

- i. Only gloves
- ii. Only mask
- iii. Gloves, Mask, Apron
- iv. Gloves, Mask, Apron and Shoe cover

7. Colour coding of hospital waste management:-

- i. Blue, yellow, red, white
- ii. Orange, Black, Brown, Purple
- iii. Black, sky blue, White, Brown
- iv. Green, blue, Yellow, Red, White translucent container

8. Effective Hand Washing should be done with:-

- i. Liquid handwash

- ii. Plain water
- iii. Salt
- iv. Ash

9. Secretions in suction jar can be discarded by:-

- i. Wearing gloves
- ii. Wearing mask
- iii. By naked hands
- iv. Both (i) and (ii)

10. How many times hospital surface should be cleaned in a day?

- i. Once
- ii. Twice
- iii. Thrice
- iv. Each time when dirty

11. Which of these is not considered as a cleansing agent?

- i. Plain water
- ii. Alcohol based hand rub
- iii. Betadine
- iv. Savlon

12. When should wheelchairs and stretchers should be cleaned?

- i. After each patient use
- ii. After 5 patients use
- iii. After 10 patients use
- iv. After 20 patients use

13. What are the right ways to lift dirty linen with hands?

- i. Towards the body
- ii. Away from the body
- iii. Next to the body
- iv. None of the above

14. When hands should be washed?

- i. After touching contaminated equipments and patient's wastes
- ii. After touching bodily fluids
- iii. After doing any work
- iv. All of the above

15. What should be done if hands touched the sink while handwashing?

- i. Add more soap to hands
- ii. Continue to wash hands
- iii. Apply more friction during procedure
- iv. Repeat the procedure

16. Nosocomial infections can be controlled by:-

- i. Bio Medical Waste management
- ii. Cut chain of transmission of infections
- iii. Reduce long term risks
- iv. All of the above

17. What is the best defense in infection's prevention and control?

- i. Hand hygiene
- ii. Wearing gloves
- iii. Wearing masks
- iv. None of the above

18. Which of the following can be worn on hands during working hours?

- i. Ring with plain band
- ii. Artificial nails
- iii. Bangles
- iv. None of the above

19. When plastic disposable apron should be disposed?

- i. At the end of each shift
- ii. Every hour
- iii. After caring of each patient by the health care provider
- iv. After its been washed once

20. Which of the following is not included in Standard Infection Control precautions?

- i. Management of blood and bodily fluids spillage
- ii. Patient's personal hygiene
- iii. Safe handling of linen
- iv. Cleanliness of hospital equipment

Initially statement of the problem was "A study to assess the effectiveness of behavioural change communication on nosocomial infection in terms of knowledge among housekeeping staff in selected hospital at Ranchi, Jharkhand." Behavioural changes communication has improved the knowledge among housekeeping staff in preventing Nosocomial infection in the working area of RIMS Hospital, Ranchi, Jharkhand .

The formal written permission for data collection was obtained from the Medical Superintendent of RIMS Hospital, Ranchi, Jharkhand. Data collection was done on 50 samples in selected hospital at RIMS Hospital, Ranchi, Jharkhand. The samples were selected by convenient sampling technique. Data collection had been done in three phases: First phase- Pre-test had been conducted to assess knowledge at the given time was 20 min. Second phase- Behavioural changes communication had been included Flashcards and charts for a complete session for 60 min. Third Phase- Post-test conducted after 1 week and the time given was 20 min. The Housekeeping staff were explained about the study, and the confidentiality of the response was also maintained. Written consent was obtained among from housekeeping staff. Data was collected on demographic variables. Pre-test and Post test scoring was assessed.

RESULTS

Organization Of Results:

The results of the study are presented in the following sections.

Section A:

Data on frequency and percentage distribution of participants according to demographic variables.

Section B:

Distribution Of Participants According To Knowledge Score.

Section C:

Comparison of pretest and post test level of knowledge.

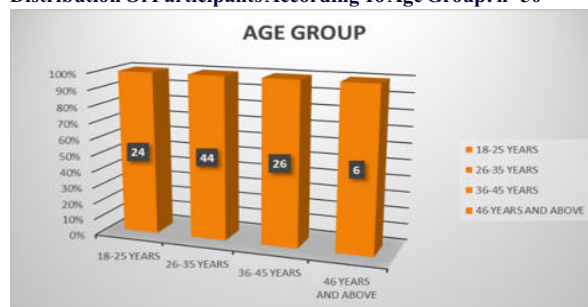
Section D:

Association of pretest level of knowledge with selected demographic variables.

SECTION-A

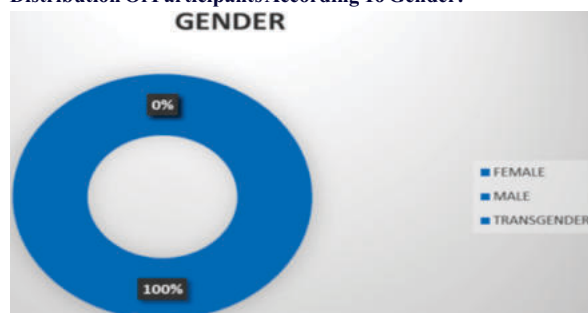
Data on frequency and percentage distribution of the samples according to demographic variables.

Distribution Of Participants According To Age Group: n=50



Bar graph shows that out of 50 participants 24% were between 18-25 years of group, 44% were between 26-35 years of age group, 26% were between 36-45 years of age group & 6% were more than 46 years of age group.

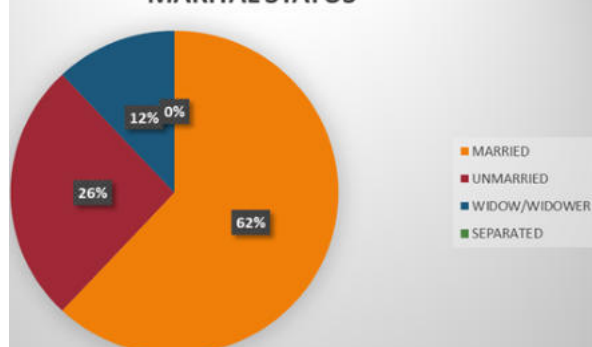
Distribution Of Participants According To Gender:-



DATA COLLECTION PROCESS

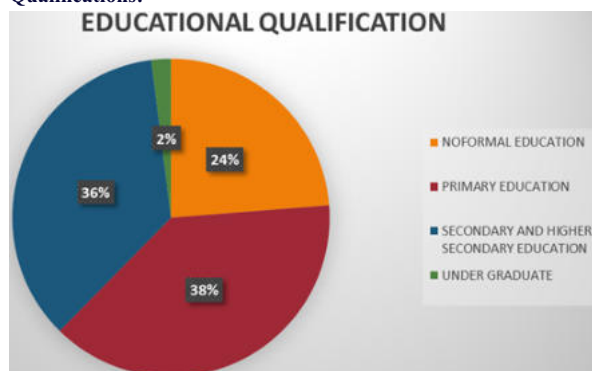
Doughnut shows that out of 50 participants 100% were female, 0% were male candidates and 0% were transgender candidates.

Distribution Of Participants According To Marital Status:-



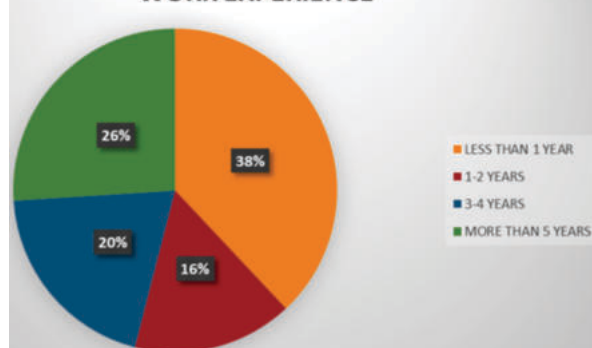
Pie chart shows that out of 50 participants 62% were married, 26% were unmarried, 12% were widow/widower and 0% were separated.

Distribution Of Participants According To Educational Qualifications:-



Pie chart shows that out of 50 participants 24% had no formal education, 38% were primary education, 36% were secondary and higher secondary and 2% were under graduates.

Distribution Of Participants According To Work Experience:-



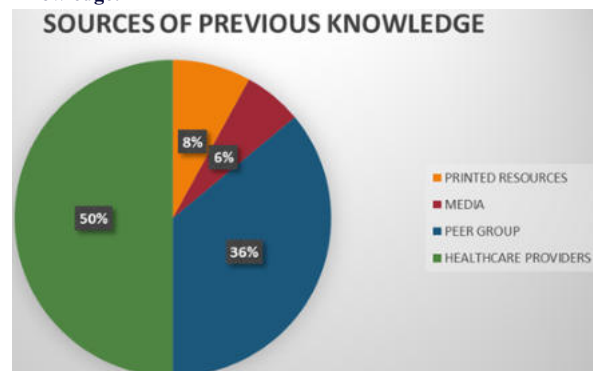
Pie chart shows that out of 50 participants, 38% were experienced less than 1 year, 16% were experienced between 1-2 years, 20% were experienced between 3-4 years and 26% were experienced more than 5 years.

Distribution Of Participants According To Area Of Posting:-



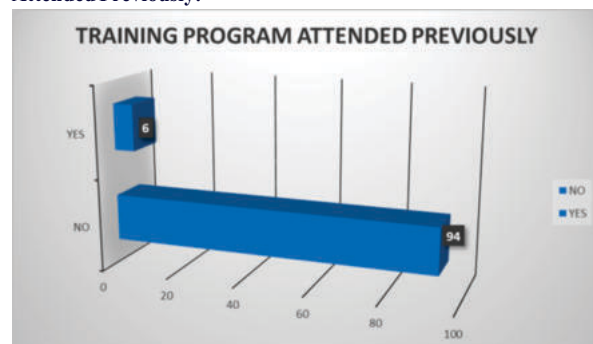
Pie chart shows that out of 50 Participants 60% were posted in general ward, 18% were posted in OPD, 8% were posted in ICU and 14% were posted in O.T area.

Distribution Of Participants According To Sources Of Previous Knowledge:-



Pie chart Shows that out of 50 participants 8% have previous knowledge from printed resources, 6% from media, 36% from peer groups and 50% from healthcare providers.

Distribution Of Participants According To Training Program Attended Previously:-



Bar diagram shows that out of 50 participants 94% had not attended any training program and only 6% had attended training program previously.

Section-B Distribution Of Participants According To Pre Test Score And Post Test Level Of Knowledge:-

Knowle dge	Excellent	Good	Accepta ble	Questio nable	Poor	Unaccep table
PRE TEST	0%	18%	34%	28%	20%	0%

This table shows that in Pretest data revealed that 0% were excellent, 18% were good, 34% were acceptable, 28% were questionable, 20% were poor and 0% were unacceptable but and post test data revealed that 6% were excellent, 44% were good, 32% were acceptance, 18% were questionable, 0% were poor and 0% were unacceptable.

Distribution Of Knowledge Score:-

CRITERIA	SCORE
EXCELLENT	90% and above
GOOD	75% - 90%
ACCEPTABLE	60%- 75%
QUESTIONABLE	45%- 60%
POOR	30%- 45%
UNACCEPTABLE	Below 30%

Section- C Comparison Of Pretest And Post Test Level Of Knowledge

Knowle dge	n	Mean	Standard Deviation (SD)	Pearson Correlati on	P value	t value	Degree of freedom (df)
Pretest	50	11.3800	2.98219	.711	.001	-9.105	49
Post test	50	14.1400	2.56356				

Interpretation

The hypothesis was tested at 0.005 level of significance and calculated the p-value of knowledge score is 0.001. Hence the calculated p-value is less than table value, hence null hypothesis is rejected and alternative hypothesis is accepted. Therefore, the significant was associated.

Section – D Association Of Pretest Level Of Knowledge With Selected Demographic Variables:-

Demographic Variables	Pearson Correlation (x^2)	Degree Of Freedom (df)	p-value
Age in years	-.065	49	.654
Gender	-----	49	----
Marital status	-----	49	----
Educational qualification	.142	49	.325
Work experience	0.47	49	.745
Area of posting	.246	49	.084
Source of previous knowledge	.338	49	.016
Attended any training programme	.110	49	.447

INTERPRETATION

The hypothesis was tested at 0.05 level of significance. The calculated p-value through Pearson correlation test, the demographic variables – age in years(.654), educational qualification (.325), work experience(.745), area of posting (0.84) and attended any training programme (.447). These calculated value are greater than table value except sources of previous knowledge (.016). Therefore, it can be calculated that there is no significant association between pretest level of knowledge with these demographic variables except Hence, null hypothesis is partially accepted.

DISCUSSION

The discussion is organized under the following headings:

Major Findings And Discussion Of The Study:

The discussion is organized under the following headings:

Section-A

Majority of participants belongs to age group between 26-35 years (44%) and minority participants belongs to more than 46 years of age group(6%).

All the participants i.e., (100%) were female and out of which most of the participants i.e., (62%) were married.

Maximum participants i.e., (38%) were having primary educational qualification and 38% were having work experience of less than 1 year.

Most of the participants i.e. (60%) were posted in general ward.

Majority of the participants i.e. (50%) had previous knowledge from healthcare providers and many had not attended any training programme earlier i.e (94%).

Section-B

Before Behavioral change communication, housekeeping staffs had knowledge Excellent (0%), Good (18%), Acceptance(34%), Questionable (28%), Poor (20%) and Unacceptable (0%) on nosocomial infection.

After giving Behavioral change communication housekeeping staff knowledge has improved i.e. Excellent(6%), Good(44%), Acceptance (32%), Questionable (18%), Poor (0%) and Unacceptable(0%) on nosocomial infection.

Section-C

The findings reveals that the hypothesis was tested at 0.05 level of significance and calculated the p-value of knowledge score is 0.001. Hence the calculated p-value is less than table value, hence null hypothesis is rejected and alternative hypothesis is accepted. Therefore, the significant was associated.

Section-D

The findings reveals that there is so significant association between pretest level of knowledge with these demographic variables except for source of previous knowledge. Hence null hypothesis is partially accepted.

CONCLUSION:

The findings of the present study indicates the after giving intervention to the housekeeping staff, the behavioral change communication was effective to increase the knowledge of housekeeping staff regarding nosocomial infection.

Acknowledgement

“Dedicated to parents of all students” “An investment in knowledge always pays the best interest.” - Benjamin Franklin

PRAISE AND GLORY OF GOD ALMIGHTY, THE HOLY SPIRIT who guides and who always been a great source of strength, wisdom and enlightened force behind all our effort in making this study a success.

We express our sincere feeling of gratitude to **Dr. Sudhadevi M** Vice-Principal College of Nursing RIMS for her expert guidance and facilities provides in the institution, helping us to undertake the course.

Special words of gratitude go to our research coordinator **Ms. Litna Geroje**, Lecturer, College of Nursing RIMS for guiding us throughout the research process and helping us in data analysis in spite of her busy schedule.

We would also like to thank our class coordinator **Ms. Preety Nandan**, Lecture, College of Nursing RIMS.

Take this opportunity to express our profound gratitude and deep regards to our guide **Ms. Abha Horo**, Clinical Tutor, College of Nursing RIMS, Ranchi, for her exemplary guidance, monitoring and constant encouragement throughout the courses of these thesis. The blessing, help and guidance given by her time to time shall carry us a long way in the journey of life on which we are about to embark.

We are thankful to the **Medical Superintendent** of Maa Ram Pyari Superspeciality Hospital for giving us permission to conduct and cooperating us during the pilot study.

We are deeply indebted to the entire College of Nursing, RIMS, for their encouragement, valuable support and timely suggestion at every phase of this study. We feel highly obliged to all the experts for their encouragement, support and valuable suggestions for the tool validity.

We extend deeply our thanks to **Mr. Hirendra Birua**, Medical Superintendent RIMS, Ranchi **Mr. Ashok Kumar Sharma** Head of Department of Microbiology and supervisor of housekeeping staff for granted permission to conduct research study and for their cooperation throughout the study.

A research project can never become successful without coordinated efforts of members of the team; first of all we wish to express our sincere gratitude to the housekeeping staff who participated in the study and gave their valuable time and sharing the information.

We express our heartfelt thanks to the library staff of College of Nursing RIMS for extending library facilities throughout our research study.

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