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## A Study to Assess the Obstacles to Hand Washing Among Nursing Students

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### ABSTRACT:

Hand washing is vital in the medical industry to prevent cross contamination and disease transmission among hospital staff. Our study aimed to identify hand-washing barriers among nursing students. A study examined nursing students' handwashing barriers. Methodology: Descriptive study done among 1st and 2nd year BSc students using purposive sampling and a self-prepared, expert-validated questionnaire. Before collecting samples, researchers described the study's goal. Poor knowledge score. Excellent. IQ) Objective-based data analysis. Results-According to scidemographic factors, 87 % of the students are below 19 years old, and 161 (82.14%) are female. Most students have completed 12th grade (51.2%), and 189 (96.43%) are unmarried. 53.57 percent of students had average clinical practise obstacles in the survey. 27.4% sewed handwashing barriers. 19.39% never have handwashing barriers. To minimise hospital-acquired infections, students must be educated and motivated about the need of hand washing throughout clinical procedures.

### 1. Introduction

Because people's habits of washing their hands are generally poor all over the world, the WHO has taken the initiative to encourage it, stating that people can save their own lives by washing their hands. I am aware that washing was one of the most beneficial and conveniently accessible sources for preventing infection, and that

this will assist to prevent diarrheal diseases among all individuals. The importance of washing one's hands extends beyond the prevention of diarrheal infections to include include hepatitis and cholera. [1] Every employee is aware of the significance of washing one's hands, since this helped reduce the number of infections that were acquired at the hospital. The vast majority of medical personnel have poor compliance

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rates with regard to cleaning their hands. It is important for workers in the health care industry to receive the advanced training in hand washing that is offered by the WHO. [2] The techniques we use to wash our hands in hospitals are the primary cause of hospital-acquired illnesses. This occurred at varying frequencies during the COVID-19 study, but it was determined to be dependent on the policies, equipment, and instruments that were available at the hospital [3].

The majority of the time, nurses have a negative attitude toward hand hygiene practises. This can be attributed to a lack of time spent with patients, the neglecting of recommendations relating to hand washing, work load, skin irritation, and the fact that nurses don't have much time on duty.

Hand washing should be done in the hospital before touching to the patient after carrying out some invasive procedures, after touching to the infected material, after touching to the infectious patient, and at the end of each work work these all precautions was help us to prevent the cross infection in

the hospital to minimise hospital acquired infection[5,6]. [Note:

The nursing administrator needs to monitor the practises of the nurses in order to improve the procedures for washing one's hands. There was a wide range of poor compliance with hand washing techniques among health care professionals [7,8].

## 2. Material and Methods

Descriptive study done to assess the barriers of hand hygiene among 1<sup>st</sup> yr and 2<sup>nd</sup> yr Basic B.Sc. nursing students. Samples selected as per inclusion criteria of the study purposive sampling techniques was used for study .Self-prepared questionnaire prepared for data collection which was based on Hospital administration grades. Before data collection questionnaire validated from experts. Ethical permission taken from ethical committee. Purpose of the study explained by the researcher to the samples. Inform consent taken before data collection. Data was analyzed as per objectives of the study.

## 3. Results

**Table No-1:** As per Scio demographic variables as per their percentages. n=100

Sr.No	Demographic Variable	Frequency	Percentage
<b>1</b>	<b>Age group</b>		
	≤19 years	171	87.%
	≥20 years	25	12.76%
<b>2</b>	<b>Gender</b>		
	Male	35	17.86%
	Female	161	82.14%
<b>3</b>	<b>Education</b>		
	12 <sup>th</sup> sciences	100	51.02%
	Bsc nursing 1 <sup>st</sup> yr	96	48.98%
<b>4</b>	<b>Marital Status</b>		

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	Married	7	3.57%
	Un-Married	189	96.43%

In above table shows in the age group that is below 19 years of age 87 % of the students and female students was 161 (82.14%) in the education maximum students are

completed their 12 standard (51.2% ) and in the marital status unmarried are 189 ( 96.43%).

**Table No-2** Hospital admin Grade wise distribution student nurses.

Hospital Admin Grade	Frequency	Percentage
Good	91	46.43
Average	70	35.71
poor	35	17.86
Total	196	100

In the apple table shows that maximum hospital admin grades are in the good average school among the student nurses.

**Table No-3** percentage score of barriers of hand washing among nursing students.

Always	sometimes	Newer
27.4%	53.57%	19.39%

In the apple table shows maximum students are barriers of hand washing sometimes 53.57% always 27.4% and never 19.39%.

**Table No-4** Association between Scio demographic variables and barriers of Hand washing among nursing students.

Sr.No	N	Mild	Moderate	Severe	Chi Square	d.f.	P-value	
<b>Age group</b>								
≤19 years	171	34	89	48	1.277	2	0.5282	NS
≥20 years	25	4	16	5				
<b>Gender</b>								
Male	35	8	14	13	3.3372	2	0.1885	NS
Female	161	30	91	40				
<b>Education</b>								
12 <sup>th</sup> sciences	100	18	50	32	2.587	2	0.2743	NS
B.Sc. nursing 1 <sup>st</sup> yr	96	21	54	21				
Administration								

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Good	91	15	46	30				
Average	70	16	40	14	3.65	4	0.454	NS
Poor	35	7	19	9				
<b>Marital Status</b>								
Married	7	37	100	52	0.9663	2	0.6168	NS
Un-Married	189	1	5	1				

In above table there was no any significant association between Scio-demographic variables.

## 4. Discussion

According to the findings of the aforementioned research, the majority of students are under the age of 19 (87%) and are female (87.12%). The majority of students are also from the first year of the Bachelor of Science in Nursing programme (48.96%) and are unmarried (96.43%). 53.57% of students responded that hand cleaning was a barrier in clinical practise sometimes, 27.4% of students responded that it was a barrier on average, and 19.39% of students responded that hand washing was never a barrier.

Syed Esam M, Rakhee V, Mohammad Bilal K (2015). A cross-sectional study was conducted on fifty nursing students in Uttarakhand in order to evaluate their knowledge, attitudes, and practises. A questionnaire that the individual had developed themselves was used to evaluate their knowledge, practise, and attitude over the course of six months. The findings indicate that 28% of the samples had a low level of knowledge, whereas 72% of the samples had a moderate level of knowledge [9].

A cross-sectional study was conducted on a total of 160 respondents by Maheshwari V, Kaore NC, Ramnani VK, and Gupta SK in order to evaluate their knowledge, attitudes, and hygiene behaviours. Good attitudes were displayed by nurses regarding hand

washing 62.5% of the time, compared to 21.3% of the time, and this difference was demonstrated to be highly significant with a p-value of less than 0.001 [10].

Richa Semwal, Shiv Kumar Yadav, A. R. Piyush, et.al An observational study with a cross-sectional design was carried out at eight government hospitals. 40 observations regarding the habits of hand washing in accordance with the WHO guideline. From that proportion of physicians, a total of 600 observations are carried out on the various healthcare professionals. 63 percent of medical professionals and 62 percent of healthcare workers overall 52 percent of students studying to become physicians, compared to 59 percent of students studying to become nurses. There is a dearth of alcohol-based agents, less soaps, and less hand dryers, and these are the frequent barriers for the hand washing practices[11]. Add school healthcare professionals; they missed out on the hand washing practises due to the fact that there is a lack of alcohol-based agents.

50 nursing students in their junior and senior years participated in a cross-sectional study using convenient sample methods. The students were given a knowledge questionnaire based on WHO guidelines. According to the findings, 62% of students possessed a moderate degree of knowledge, and 12 pupils have a positive



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attitude toward the practises of hand washing [12].

## 5. Conclusion

Hand cleaning was an extremely important practise for those working in health care. Washing one's hands not only helps ward against infections but also shortens the length of time a patient must spend in the hospital. During their time in the clinical setting, nurses should become more diligent about cleaning their hands.

## 6. Acknowledgement

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Conflicts of interest: There **are no conflicts of interest**.

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## References

- [1] Mbouthieu Teumta GM, Niba LL, Ncheuveu NT, Ghumbemsitia MT, Itor PO, Chongwain P, Navti LK. An institution-based assessment of students' hand washing behavior. *BioMed Research International*. 2019 Dec 28;2019.
- [2] Muthyala SR, Vankayalapati V. A study on assessment of knowledge, attitude and practice on handwashing among nursing students of Sree Venkateswara College of Nursing, Chittoor, Andhra Pradesh.
- [3] Ahmadipour M, Dehghan M, Ahmadinejad M, Jabarpour M, Mangolian Shahrabaki P, Ebrahimi Rigi Z. Barriers to hand hygiene compliance in intensive care units during the COVID-19 pandemic: a qualitative study. *Frontiers in Public Health*. 2022;2763.
- [4] Shinde MB, Mohite VR. A study to assess knowledge, attitude and practices of five moments of hand hygiene among nursing staff and students at a tertiary care hospital at Karad. *Int J Sci Res*. 2014;3(2):311-21..
- [5] Kumar R, Gupta PK, Sharma P, Kaur R. Hand Hygiene, Attitude and Barriers among Health Care Workers at a Tertiary Care Teaching Hospital, Uttarakhand..
- [6] Chauhan K, Mistry Y, Mullan S. Analysis of compliance and barriers for hand hygiene practices among health care workers during covid-19 pandemic management in tertiary care hospital of India—an important step for second wave preparedness. *Open Journal of Medical Microbiology*. 2020 Nov 4;10(4):182-9.
- [7] Labrague LJ, McEnroe-Petitte DM, Van de Mortel T, Nasirudeen AM. A systematic review on hand hygiene knowledge and compliance in student nurses. *International nursing review*. 2018 Sep;65(3):336-48..
- [8] Syed Arshad Hussain(2018) Hand hygiene amongst health workers in a teaching hospital - A kap study *Annals of Epidemiology and Public health* 1:1005
- [9] Syed Esam M, Rakhee V, Mohammad Bilal K, (2015). Hand hygiene practices among nursing students: importance of improving current training programs. *International Journal of Community Medicine and Public Health* Mahmood SE et al. *Int J Comm*.466-471.

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- [10] Maheshwari V, Kaore NC, Ramnani VK, Gupta SK, Borle A, Kaushal R. A Study to Assess Knowledge and Attitude Regarding Hand Hygiene amongst Residents and Nursing Staff in a Tertiary Health Care Setting of Bhopal City. J Clin Diagn Res. 2014 Aug;8(8).
- [11] Richa Semwal, Shiv Kumar Yadav, A. R. Piyush, et.al (2019). Assessment of hand hygiene practices among health care providers in a government tertiary care hospital. ICJMPH, 6 (10). 9-26.
- [12] Mahedad Javadpoor, Nasrin, Fatemeh (2022). Knowledge, Attitude and Performance of Nursing Students Towards Hand Hygiene Medical and Surgical Wards of Zanjan Teaching Hospitals in Preventive Care in Nursing and Midwifery Journal 12(1): 11-19.