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Research Article

Knowledge of Hand Hygiene among Undergraduate Medical Students in a Tertiary Healthcare Facility of District Etawah, Uttar Pradesh, India: A Cross Sectional Study

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A B S T R A C T

Globally, we are going through the pandemic of COVID-19 also known as novel Corona virus disease or SARSCov-2 since last one year. Corona virus was found to be originated from Wuhan city of China. As of now, there is no treatment for COVID-19 disease, we are giving symptomatic treatment and few evidence-based drugs to treat the COVID-19 patients. To control the spread of COVID-19 disease, hand hygiene is among the most important measures including wearing a mask and maintaining the social distancing. The study was conducted among the students of 2020 and 2019 batches of MBBS in tertiary care facilities with simple random sampling technique. Total of 100 students were selected randomly according to their roll numbers. From each batch, 50 students were asked to perform the hand hygiene steps recommended by WHO in front of the interviewer. From 2020 batch, only 26 (52%) students and from the 2019 batch 39 (78%), were able to perform the hand hygiene steps recommended by WHO. The rest of the students had improper knowledge of hand hygiene. After applying Fisher's exact test, the p-value is 0.0113 (P<0.5) which was found to be significant.

Keywords: COVID-19, Hand Hygiene, WHO Hand Hygiene Recommended Steps, Awareness of Hand Hygiene, Healthcare Awareness

Introduction

Globally, we are going through the pandemic of COVID-19 also known as novel Coronavirus disease or SARS Cov-2 since the last year.[1] Coronavirus was found to originate from Wuhan city of China. As far now there is no treatment for COVID-19 disease, we are giving symptomatic treatment and few evidence-based drugs to treat the COVID-19 patients. To control the spread of COVID-19 disease, hand hygiene and wearing the mask are among the most important measures including social distancing.[2] Many of the vaccines like covisheild, covaxin, etc have also been claimed globally to reduce the corona spread with varying efficacy rates.[3] The government of India has taken important measures to penetrate even the remotest areas in accordance to spread the knowledge of hand hygiene, mask-wearing, and social

distancing.[4] Healthcare professionals are at higher risk of getting infected with COVID-19 disease.[5,6] Knowledge and proper gears are the necessities of every healthcare personal to perform their duties in COVID hospitals.[7]

Material and Method

The study was conducted between 8th to 10th February 2020 among the students of 2020 and 2019 batches of MBBS in a tertiary care facility with a simple random sampling technique. 50 students each from both the batches were asked to perform the hand hygiene steps recommended by WHO in front of the interviewer with randomly selected roll numbers. Those who were absent during the study were excluded from the study and students with adjacent roll numbers were included. The data thus collected was scrutinized for completeness and entered in a Microsoft Excel spreadsheet and statistically analyzed using SPSS software version 25, IBM Chicago, the USA using Fisher exact test. A P value ≤ 0.05 at 95% confidence interval was considered to be statistically significant.

Statistical Analysis

After the collection of data, it was revised, coded, and fed to an excel sheet. All statistical analysis was performed using SPSS version 24. Fisher exact test applied, P ≤ 0.05 was considered to be statistically significant.

Result

The total of 100 students, 50 each from both the batches were asked to perform the hand hygiene steps as per the recommendation of WHO. From the 2020 batch, only 26 (52%) students and from the 2019 batch 39 (78%), were able to perform the steps (Table 1). The rest of the students have improper knowledge of hand hygiene. Table 2 shows, in the 2020 batch 30% of girls who have correctly performed the steps and 24% girls performed incorrectly. The 22% and 24% boys performed steps correctly and incorrectly respectively. In the 2019 batch, 34% and 8% of girls performed correctly and incorrectly respectively. And 44% and 14% of boys have performed the steps correctly and incorrectly respectively. After applying Fisher's exact test, the P-value is 0.0113 (P<0.5) which was found to be significant.

Table 1.Association between 2020 batch vs 2019 batch regarding Hand Hygiene

	Batch 2020	Batch 2019	
Correct steps	26 (52%)	39 (78%)	p Value< 0.0113 (P<0.5) 100
Incorrect steps	24 (48%)	11 (22%)	
	50	50	

Table 2.Percentage of Girls and Boys in both the batches aware of Hand Hygiene Steps

	Batch 2020 (n=50)	Batch 2019 (n=50)
	Girls Boys	Girls Boys
Correct steps	15 (30%), 11 (22%)	17 (34%), 22 (44%)
Incorrect steps	12 (24%), 12 (24%)	4 (8%), 7 (14%)
	27, 23	21, 29

Conclusion

It is conclusive that those students who got admitted recently to medical college have less knowledge (only 52%) of hand hygiene practice as per WHO recommendation than that of senior students of the 2019 batch (78%) of medical college. The new students are reflecting the sample of community, conclusive that our community still needs more awareness by the government. The students of the 2019 batch have already gone through much training conducted by the tertiary care hospital which helped them to perform the correct steps.

Conflict of Intrest: None

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