

EFFECT OF HAND HYGIENE TRAINING IN THE IMPLEMENTATION OF PATIENT SAFETY BY UNDERGRADUATE MEDICAL STUDENTS ON PATIENT SATISFACTION IN PKU MUHAMMADIYAH GAMPING HOSPITAL

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Abstrak

some studies have shown that there is a correlation between patient safety and patient satisfaction, patient safety includes infection risk control with handwashing culture. In hospitals Undergraduate medical doctor's education also has a direct role to the patient's health care and certainly plays a role in patient safety. But not all undergraduate medical doctors have knowledge and culture of handwashing applications. The purpose of this research is to know the effect of *Hand hygiene* education on undergraduate medical doctors to patient satisfaction. Method : This research is a quantitative study with cross sectional study approach. the study group was divided into two groups: the control group were the patients who received health services by the undergraduate medical doctors who were not trained in *hand hygiene* and the experimental group were the patients who were given health services by the undergraduate medical doctors who had received *hand hygiene* training. Patient satisfaction was assessed using SERQUAL satisfaction survey which then performed data analysis to know difference of satisfaction between two groups . Results and Discussion : Patient satisfaction in the control group showed differences in several dimensions of patient satisfaction, ie, empathy dimensions ($p = 0.001$), reliability dimensions ($p = 0.001$), and responsiveness dimensions ($p = 0.001$), suggesting differences in patient satisfaction between the two groups. With the mean value of patient satisfaction on the empathy dimension of 3.85 in the experimental group, and 2.73 in the control group. On the reliability dimension of 3.62 in the experimental group, and 2.66 in the control group. In the responsiveness dimension of 3.43 in the experimental group and 2.81 in the control group. Conclusion : Based on the results of this study, satisfaction is also influenced by the patient's safety in this culture of *hand hygiene* by undergraduate medical doctors, and with the handicapping of *hand hygiene* training to undergraduate medical doctors, the impact of increased patient satisfaction. It can be concluded with the existence of *hand hygiene* training indirectly affect the *hand hygiene* culture by undergraduate medical doctors.

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Kata Kunci: *Hand hygiene training, patient safety, undergraduate medical students, patient satisfaction*

BACKGROUND

Patient safety (hospital patient safety) is a system where the hospital makes the patient's care more secure. The system includes risk assessment, identification and management of issues related to patient risk, incident reporting and analysis, incident learning abilities and follow-up and

implementation of solutions to minimize risks. The system is expected to prevent injury caused by errors resulting from an action or not taking action that should be done¹.

Infection prevention and control is the greatest challenge in health care settings, and the increased cost of dealing with health care-related

infections is a major concern for patients and health care professionals. Infection is common in all forms of health services including urinary tract infections, blood stream infections and pneumonia (often associated with mechanical ventilation)².

The principal elimination of this infection as well as other infections is proper *hand hygiene*. *Hand hygiene* guidelines can be read in the WHO literature, and various national and international organizations³. The organization has a collaborative process for developing policies and / or procedures that adapt or adopt generally accepted *hand hygiene* guidelines for implementation of the guidance in the hospital³

Hand hygiene is one way to reduce infections related to health care. The study explains that *hand hygiene* performed by all hospital employees can prevent hospital acquired infections (HAIs) by 15-30%. Much effort is being made to improve *hand hygiene* compliance but is generally ineffective and short term. So it is important to look for a clear evidence-based strategy to improve the habits of *hand hygiene*²

First-year and second-year medical students often have excessive self-assessment in applying *hand hygiene* behaviors, the application is still far in good outcomes, and systematic training and role-play is required, and overall application in every clinical teaching activity in the hospital⁴

Educational intervention and technical training results in improvements in health workers

compliance with hospital infection prevention standards. Patient satisfaction with hygiene practices also significantly improved⁵.

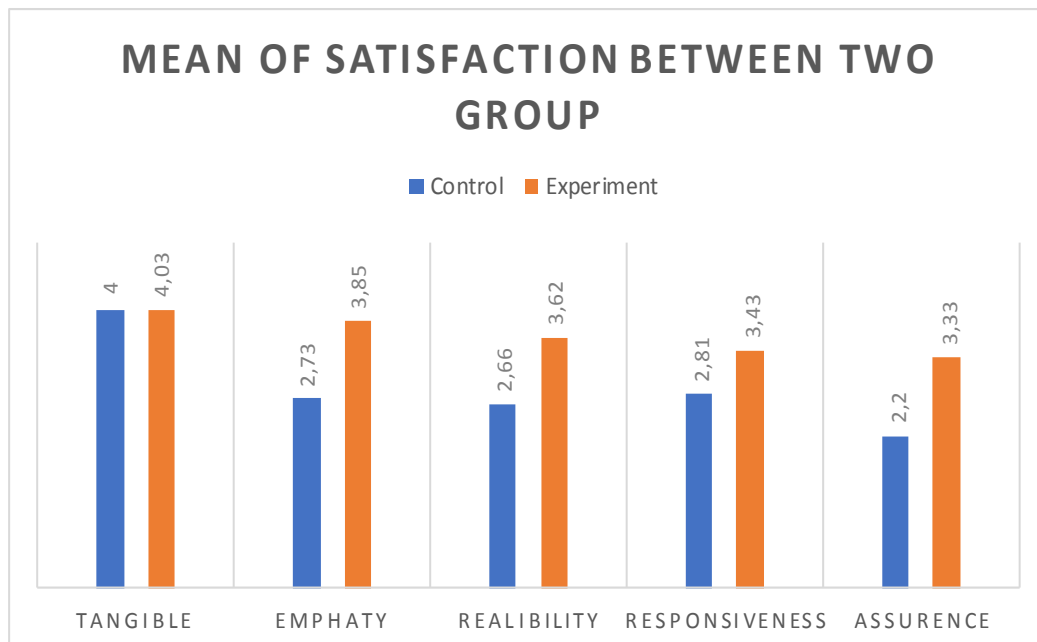
MATERIAL AND METHOD

This research is a quantitative study with cross sectional study approach. the research group is divided into two groups namely control group were patients with 15 patients who received health services by undergraduate medical doctors who did not receive *hand hygiene* training and experimental group were 15 patients who were given health services by undergraduate medical doctors who had received *hand hygiene* training. Patient satisfaction was assessed using SERQUAL satisfaction survey which then analyzed data to know the difference of satisfaction between the two groups.

Hand hygiene training was given through mini lecture using a module followed by discussion and role play. The mini lectures are given for approximately 60-90 minutes. The module were adopted from WHO Patient Safety Curriculum Guide for Medical Schools

RESULT

The graph shows the difference in patient satisfaction outcomes between the two groups, the overall dimension of satisfaction indicates an increase in patient satisfaction.



In the table shows the tangible dimension the difference of patient's average satisfaction on hand hygiene culture in the control and experimental group has no statistically significant difference, indicated by the value of $P = 0.791 > \alpha = 0.05$ whereas in empathy dimension the difference of the average of patient's satisfaction to culture hand hygiene in the control and experimental group was statistically significant difference, indicated by $p = 0.001 < \alpha = 0.05$.

In the dimensions of reliability and responsiveness, there is a difference between the average patient satisfaction on hand hygiene culture in the control group and the experimental group with $p = 0.001 < \alpha = 0.05$. on the assurance dimension statistically did not get significant difference mean of patient's satisfaction to hand hygiene culture in control and experiment group with value $p = 0.242 > \alpha = 0.05$

No	Dimension	Group	Mean (%)	SD (%)	(95% CI)
1	Tangible	Experiment	4.03	0.44	0.791
		Control	4.00	0.18	
2	Empathy	Experiment	3.85	0.40	0.001
		Control	2.73	0.41	
3	Reliability	Experiment	3.62	0.40	0.001
		Control	2.66	0.32	
4	Responsiveness	Experiment	3.43	0.49	0.001
		Control	2.81	0.41	
5	Assurance	Experiment	3.33	0.29	0.242
		Control	2.20	0.31	

DISCUSSION

Customer satisfaction is the level of one's feelings after comparing with expectations⁶. The closer the expected service expectations to the minimum service received, the greater the likelihood of achieving satisfaction. Patient satisfaction also reflects the type of service felt by the patient during treatment or the relationship between the services they receive both technical and psychological, where improving the relationship between the desired service and actually received by the patient will increase patient satisfaction⁷. Conducting patient satisfaction evaluations is important for health care centers, with patient satisfaction evaluations making positive changes in the delivery of health services⁸. In line with the above research, the researcher evaluates patient's satisfaction with ServQual method where patient's satisfaction is observed from five aspects namely tangible, reliability, responsiveness, assurance and empathy (emphaty)⁹.

The existence of a physician profession or better known as a "young doctor" in the health service in the hospital. Education has an impact on the patient's perception as a service user. According on observational research conducted shows that in the hospital that has just moved the status of a hospital Education and medical students the first year and the second has an influence on patient satisfaction⁵. In this study proved by the existence of undergraduate medical doctor who participated in the examination process with both

supervisor and independent physicians, slightly give improvement in patient satisfaction.

In another study measuring the ability and awareness of young physicians in the application of five handwashing moments based on the WHO concept in 2012, the results show that serious attention is needed to improve the practice of hygiene and the application of five moments wash hands among young doctors¹⁰. Undergraduate medical doctor In the first and second years often have an excessive assessment of themselves in applying hand hygiene behavior, the application is still far in good results, and training is needed systematic, and role-play, as well as the overall application in every clinical teaching activity in the hospital⁴

The provision of interventions in the form of patient safety training has been shown to provide patient behavioral changes in the short term where it is likely to result in changes in patient safety behavior as a whole. Medical students or young doctors seem to start building good patient safety behaviors from the time of training¹¹

Hand hygiene training can provide significant changes to the habitual changes in a population, although the training provided is limited to a mini lecuterer or role model that provides a continuous example⁵

In the reliability dimension, the difference of satisfaction is significant compared to other dimensions of

satisfaction, due to the reliability of the ability and the habits of young doctors to perform hand hygiene assessed by the patient directly. Patient safety training given to the control group proved to affect the hand hygiene culture in applying the five moments and hand hygiene measures appropriately, in accordance with previous research⁵, according to him the provision of interventions in the form of short training in both young and resident doctors help improve the culture of hand hygiene implementation significantly. In the study using a short lecture method with modules for the intervention group based on patient safety training module for medical students by WHO, this is also done on research conducted by researchers.

CONCLUSION

There was a significant difference in patient satisfaction between patients receiving treatment from young doctors who were trained in hand hygiene and who were not trained in hygiene training with increased patient satisfaction in the group of patients receiving treatment from young doctors who were trained in hand hygiene training. This illustrates that hand hygiene training given to young doctors has an effect on patient satisfaction assessed from the dimensions of reliability, responsiveness, and empathy.

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