

Investigation on the Factors Influencing the Cognition of Medical Staff's Hand Hygiene Knowledge

LiLong, JingYang, FuyuZhang*

Tianjin Third Central Hospital, Hedong District, Tianjin 300170, China

*Corresponding Author

ABSTRACT. *Objective: To explore the influencing factors of the knowledge of hand hygiene knowledge of medical staff. METHODS: A total of 219 medical staff from our hospital from January 2018 to December 2018 were selected to conduct a questionnaire survey. The questionnaires were collected 100% efficiently, and the hand hygiene awareness and influencing factors of medical staff were collected. Results: The study found that the nurses achieved a correct cognitive rate of 59.18%, and the physicians and medical technicians achieved a correct recognition rate of 16.13% and 7.14%, respectively. For the basic concept of hand hygiene, nurses' cognition is better than that of doctors and medical technicians, and the difference is statistically significant ($P < 0.05$). There is a misunderstanding of hand hygiene awareness among medical staff, and there is not enough awareness of absorption. Ideally, after contact with the patient and after clinical operation, the cognitive cognition rate was significantly higher than before and before the operation ($P < 0.05$). The key reasons for the influence of the opponent's health cognition are the busy clinical work, insufficient absorption facilities, long-distance absorption equipment, dry skin stimulation, and lack of incentive mechanism. Conclusion: The hospital needs to enhance the hand hygiene awareness of medical staff, increase the supervision of hand hygiene and incorporate the main content of continuous quality improvement of clinical nursing in hospitals.*

KEYWORDS: *medical staff; Hand hygiene knowledge; Cognitive situation*

1. Introduction

Hand-to-hand contact is the main way to cause pathogenic microorganisms to spread between doctors and patients[1]. Hand contamination by medical staff is one of the important risk factors for hospital infection. With the development of modern medicine and the increasing emphasis on hospital infections[2], correct and effective implementation of hand hygiene has become one of the most important measures to control nosocomial infections. Through proper and standardized hand washing, significant potential pathogens can be avoided or reduced. Exposure to contact between the affected, reducing the incidence of hospital infections by 30%.

Therefore, this paper explores the influencing factors of the knowledge of hand hygiene knowledge of medical staff. The report is as follows:

2. Data and Methods

2.1 General Information

A total of 219 medical staff from our hospital from January 2018 to December 2018 were selected for questionnaires, including surgery, internal medicine, orthopedics, hand surgery, obstetrics and gynecology, super-room, electrocardiogram, and laboratory.

2.2 Method

According to the “Medical Staff Hand Hygiene Regulations” issued by the Ministry of Health, we independently designed hand hygiene cognition surveys, including basic conditions, basic hand hygiene concepts, finger washing, glove use awareness, and reasons for affecting hand hygiene implementation. “The correct”, the answer is incomplete as “partially correct”, can not answer or answer the error as “wrong”, the hospital infection department randomly issued a questionnaire survey, on the spot to collect, the data will be collated and analyzed.

2.3 Statistical Methods

In this report, % is used to represent the count data, the chi-square value is used for comparison between groups, and the software processing uses SPSS23.0 statistics. $P < 0.05$ is representative of the difference, which is statistically significant. .

3. Results

3.1 The Basic Concept of Hand Hygiene Cognitive Situation

Table 1 ct recognition rate of nurses is 59.18%, physicians and medical technicians are 16.13% and 7.14% respectively. For the basic concept of hand hygiene, nurses know more about doctors and doctors. The technical staff were significantly better, and the difference was statistically significant ($P < 0.05$), as shown in Table 1.

Table 1 Cognition of Basic Concepts of Hand Hygiene for Medical Staff

position	error		Partially correct		correct	
	Number of people	percentage	Number of people	percentage	Number of people	percentage
Doctor	6	6.45%	71	76.34%	16	17.21%
nurse	2	2.04%	38	38.78%	58	59.18%
Medical technician	3	10.71	23	82.14%	2	7.14%

3.2 Washing Finger Recognition Cognitive Situation

The medical staff's cognition of washing finger sign is not ideal, and there is a misunderstanding of the opponent's health cognition. The cognition rate of hand washing after contact with the patient and after operation is obviously higher than before the patient and before the operation ($P < 0.05$).

Table 2 The Cognitive Status of Medical Staff Washing Fingers

position	Should wash your hands		Should not wash your hands		uncertain	
	Number of people	percentage	Number of people	percentage	Number of people	percentage
Direct contact with the patient	89	40.65	81	36.71	49	22.38
After direct contact with the patient	162	73.99	33	15.08	24	10.97
Before wearing a gown	122	55.72	80	36.55	17	7.81
After undressing	219	100.00	0	0.00	0	0.00
Before aseptic operation	197	89.99	2	0.90	20	9.15
After picking gloves	116	52.96	33	15.08	70	31.99
Before cleaning clean and sterile items	102	45.85	46	21.05	71	32.45
Before and after treatment	98	44.57	58	26.84	53	24.51
After touching the patient's environmental items	73	33.33	92	42.10	54	24.68
After contact with the patient's body fluid blood wound	219	100.00	0	0.00	0	0.07
Contact between different patients	128	58.65	29	13.42	62	28.32
Displace the patient's body contamination before cleaning	95	43.83	90	41.15	34	15.53

3.3 Hand Hygiene Cognition Factors

Table 3 reasons for the influence of the opponent's health cognition are the busy clinical work, insufficient absorption facilities, long-distance absorption equipment, dry skin stimulation, and lack of punishment mechanism. (See Table 3).

Table 3 Influential Factors of Hand Hygiene Awareness of Medical Staff

factor	Number of people	percentage
I have no time to work.	138	63.05
The situation is too late	53	24.50
waste time	16	7.38
Often forget	44	20.10
Other people did not wash	36	16.56
Wear gloves without washing	47	21.66
No obvious stains on the hands, no need to wash	27	12.35
Exposure to the same disease free wash	38	17.53
Washing your hands will not affect hospital infections	16	7.32
Absorption equipment far	122	55.73
Absorptive device missing	92	42.08
Insufficient hand washing	83	37.80
Stimulates dry skin	108	49.35
Allergic to absorbents and disinfectants	2	0.92
Lack of punishment mechanism	80	36.08

4. Discussion

In the medical care work, each operation is carried out by the hands of the medical staff, and the hands of the medical staff complete various simple and complicated, trivial and fine medical care activities. The bacteria carried on the hands of medical personnel have become the main pathogens of nosocomial infections[3]; studies have shown that hand hygiene and hand disinfection measures are one of the most effective means of prevention and control of nosocomial infections. Strengthening the washing of hands by medical staff can reduce the hospital infection rate by 40%. Therefore, the development of hand hygiene is highly valued by the World Health Organization (WHO) and the global patient safety eye. However, in clinical work, many medical personnel lack sufficient awareness of the importance of health, resulting in low hand hygiene compliance and hand washing. The phenomenon of low rate[4]. The survey found that the health awareness of medical staff is not optimistic, and it should be highly valued by management.

After investigation and investigation of the finger-washing cognition, it was found that the cognition rate of the hand washing after the direct contact with the patient, after the isolation of the clothes, after contact with the patient, blood or wound was significantly higher than before the direct contact with the patient, before the aseptic operation[5], and the isolation. Before, before or after the

treatment of the drug or the meal, the contaminated part of the same patient's body is displaced to the cleaning site, especially during the examination. It is found that the medical staff has a high hand washing rate after contact with a single patient, but in the ward round, morning care, physical examination The question often neglects to wash hands, which indicates that the medical staff has a strong sense of self-protection, and has not paid much attention to the hand hygiene as a medium for patients to ask for cross-infection. The hand hygiene after contact with different patients and contact with the patient's surroundings and articles only accounted for 58.45% and 43.38%. It is possible that hospital medical staff believe that the patients facing the hospital are mostly patients without infectious diseases, especially Obstetrics and Gynecology believes that it is a healthy mother who ignores washing hands. Therefore, medical personnel should correctly grasp the signs of washing fingers, keep the standard prevention in mind, and reduce or eliminate hospital infections caused by hand hygiene. Although the glove can prevent the operator's hand from being contaminated by the visible pollutants, it can reduce the risk of infection of the medical staff to a certain extent, and can also prevent the patient from being infected. Medical staff should wear gloves during medical care operations. However, the quality of the gloves may vary, and may be damaged or contaminated during use. Therefore, wash hands before and after wearing gloves. Proper use of gloves, standardizing hand washing, both to protect themselves and to protect patients.

From the investigation of the reasons that affect the implementation of hand hygiene, it is found that because of busy work, insufficient hand washing equipment, too long hand washing equipment, skin irritation, and easy skin dryness, it is the main reason that affects hand hygiene. The hospitals in China require that the first-line medical staff should not wash their hands less than 30~50 times a day, but most of them cannot do it. Therefore, the hospital should improve the hand sanitation facilities of each department. The hospital infection management department inspects each hand hygiene unit. There is unreasonable ground force. A written feedback is given to the in charge of the leadership and logistics department. The logistics management department perfects each according to the hospital infection requirements. Hand hygiene units, try their best to provide reasonable and convenient hand hygiene facilities. At the same time vigorously promote the use of speed ten hand disinfectant, speed ten hand disinfectant has a fast effect, good bactericidal effect, use force - easy, with skin care function, can save a lot of work time for medical staff, improve work efficiency and so on. According to the literature, soap washing needs 1.5~2.0 min, while speed ten hand disinfectant only needs 10~20 s, while speed ten hand disinfectant is not restricted by water source, pool, place, etc. The use of medical staff, when the hands are not significantly contaminated by the patient's blood, body fluids and other organic matter, you can use the hands of the disinfectant to disinfect hands.

In summary, it is necessary to enhance the hand hygiene awareness of medical staff, increase the supervision of hand hygiene and incorporate the main content of continuous quality improvement of clinical nursing in hospitals. The hospital should continue to pay attention to hand hygiene education, organically combine all staff

training with targeted training, comprehensively improve the awareness and compliance of medical staff's hand hygiene, and provide comprehensive hand hygiene facilities to promote the use of speed ten hand disinfectants. Formulate and improve the hand hygiene management system and management norms, formulate reward and punishment measures according to the situation, strengthen hand hygiene supervision, and put hand hygiene into the continuous quality improvement of the hospital.

References

- [1] Pawar S K, Patil R R, Shinde R V, et al (2018). Knowledge, attitude, practice of hand hygiene among nursing staff in medicine ICU in a tertiary health care centre in Western India. *International Journal of Biomedical Research*, vol. 9, no. 5, pp. 164-168.
- [2] Diwan V, Gustafsson C, Klintz S R, et al (2016). Understanding Healthcare Workers Self-Reported Practices, Knowledge and Attitude about Hand Hygiene in a Medical Setting in Rural India. *PLoS ONE*, vol. 11, no. 10, pp. 1637-1640.
- [3] Ashraf M S, Ashraf M S, Hussain S W, et al (2019). Hand Hygiene: A Multi-Center Study on Knowledge and Compliance of Nursing Home Employees. *Journal of the American Medical Directors Association*, vol.10, no.3, pp. 9-10.
- [4] Takahashi I, Osaki Y, Okamoto M, et al (2019). The current status of hand washing and glove use among care staff in Japan: its association with the education, knowledge, and attitudes of staff, and infection control by facilities. *Environmental Health and Preventive Medicine*, vol. 14, no. 6, pp. 336-344.
- [5] Pirincci E, Altun B (2016). An Analysis of Hospital Cleaning Staff's Attitudes and Conduct Regarding Hand Hygiene and Cleaning. *Int J Occup Saf Ergon*, vol. 22, no. 2, pp. 241-245.