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Assessment Awareness about Hand Hygiene among Health Care Providers in Hospitals at Al_Nasiriyah City

Penilaian Kesadaran tentang Kebersihan Tangan di antara Penyedia Layanan Kesehatan di Rumah Sakit di Kota Al_Nasiriyah

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Abstract

Background: The World Health Organization emphasizes hand hygiene as a crucial method for controlling hospital infections, emphasizing the need for healthcare workers to have current knowledge on this topic.. Objective: The study evaluates hand hygiene awareness among healthcare providers in AL_Nasiriyah hospitals, identifying factors influencing HH abidance, crucial for patient safety and reducing infectious disease transmission. Methods: A cross-sectional study was conducted in various hospitals in the governorate of AL_Nasiriyah city during the period from May to July 2024 to evaluate awareness Associated to (HH) hygiene among health care providers.by using a special format which included two parts, the first part related to their demographic characteristic and the second part contain multiple questions A purposive sample is selected for the study which sample consisting (171) working various specializations .Date were gathered through the interviewed in workplace and analyzed by using spss 20 through the application of descriptive statistical included (frequencies, percentages, M.S,and S.D). The overall result: The study revealed that over thirty-two percent of the population (63.2%) and those with over six years of health experience have the highest awareness of hand hygiene, influenced by education and experience. Conclusion: This study shows a good level of awareness of hand hygiene among health care practitioners at mean score (1.39) level of awareness regarding answering the questionnaire information. Recommendations: The study suggests continuous training for competent authorities, provision of basic hand hygiene environments, alcohol and sterilizers, and recent hygiene items for health places.

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Introduction

A fundamental aspect of effective infection control in hospital is adequate, suitable hand-hygiene practices in all Medical practitioners who are in direct and indirect contact with patients or patient's environment. In 2009, the National Hand Hygiene Initiative (NHHI) was Conducted in In hospitals nationwide) Australia (Objective was to enhancing hand_ hygiene practices and diminished health care associated Contagions [1-3].

In the hospital where this assessment was performed, a significant decrease in infection rates from Staphylococcus aureus Was attained. From (2013--2017), there was a decline in cases. Results however show the Minimum rates of hand hygiene practices Engagement persists among non-clinical personnel [4].

It's imperative to Priority on hand hygiene, within all staff members in hospitals, As a result of a major cause of Health complications and mortality in Hospital-acquired infection [5]. In 2015, there were Several cases of resistant bacteria have emerged in healthcare settings. The most effective preventive measure for infection prevention in various health care settings, including nursing homes is (antiseptic) hand rubbing [6-7]. This term Indicates to the application of Aseptic agent)hand rub(to Mitigate or suppress the growth of microorganisms Absent the need for an external source of water and requiring no washing or drying with towels or other devices. [8]. Previous research has signified to individual knowledge deficiencies Impact on Risk-free hand hygiene practices such as correct periods of hand washing and shortfalls in hand rub advisories. [9-10]. Individual influences as knowledge of the five moments of hand hygiene, behaviors including not wearing hand Accessories while nursing, and Implementing their learnings training, to improve requirement of (hand hygiene), are essential and basic criteria for infection safeguarding [11] .The hygiene courses and training could capably raise the comply to hand rubbing and minimize Infections in healthcare settings. Also effective HH demands adequate organizational factors including providing of hand rub, protective clothing, and strong indigenous efforts from the nursing management such as role modelling, According to Merton's concept of a role model, individuals who set a positive example and are worthy of imitation can influence others. Previous research has indicated that hand hygiene was performed more frequently when team members in higher hierarchical positions sanitized, serving as role models for others [12-13]. While a large proportion of multidrug-resistant infections in nursing homes could be avoided through appropriate hand hygiene behavior of nurses, this behavior is influenced by organizational factors such as hygiene training, availability of resources and improved role modelling of nursing managers [14].

Methods

Design of the Study

A descriptive design study in which assessment approach is applied to achieve the objectives of the study and was conducted Assessment of Health Care Providers Knowledge about hand hygiene in health center from the various hospitals of AL_Nasiriyah. questionnaire has been adopted to meet and achieve the objectives of the study. The questionnaire consists of two parts; part one demographic characteristics and part two consist of medical staff knowledge toward hand Hygiene behavior and its necessity practice scales. Validity is concerned with the extent to which an instrument corresponds. The content validity of instrument was established through a panel of (3) experts from different specialties. The results of the review of the questionnaire by the experts revealed that all of the experts agree that (17) items of the study instrument are clear and adequate for the measurement of the phenomenon. In order to determine the reliability of the study instrument. The pilot study was conducted in Al-Nasiriyah center in Thi-Qar governorate. It was carried out on five of healthcare workers. The study was executed from the period of May to July 2024. The Purpose of pilot study to confirm the clarity and content adequacy of the instrument structure throughout the subjects understanding and to determine the required modifications. To enhance the reliability of the questionnaire. To test the feasibility and to determine the average time required for answering the questionnaire.

Reliability of the Questionnaire:

1. The internal consistency of the instrument was determined through the
2. computation of Alpha Correlation Coefficient (Cronbach's Alpha). The Coefficient
3. Alpha was applied to determine the reliability of the present study instrument by
4. application of Statistical Package for Social Science Program (SPSS) version 20.0.

The Sample of the Study:

A purposive, non-probability sample of Health Care Providers (171) who work at medical department were selected based on the study criteria, and after obtaining a consent from them.

Inclusion Criteria for Selecting the Sample

The sample was selected according to the following criteria:

1. Those who work in medical departments
2. Both male and female genders should participate in the study.

Limitations of the Study

The generalizability of our findings is not known despite the diversity of health care workers' units and we did not assess hygiene technically and did not include night shift care workers who might have responded differently and we were unable to control for the possibility of a burden variable the work

Result and Discussion

Result

| | | Frequency | Percent |
|----------------------------------|--------------|-----------|---------|
| Age | 20-25 | 28 | 16.4 |
| | 26-30 | 35 | 20.5 |
| | >30 | 108 | 63.2 |
| | Total | 171 | 100.0 |
| Gander | Male | 128 | 74.9 |
| | Female | 43 | 25.1 |
| | Total | 171 | 100.0 |
| Level of qualification | Preparatory | 38 | 22.2 |
| | Institute | 70 | 40.9 |
| | College | 51 | 29.8 |
| | High studies | 12 | 7.1 |
| | Total | 171 | 100.0 |
| Years of experiences in hospital | 1-2 | 21 | 12.3 |
| | 3-5 | 25 | 14.6 |
| | >6 | 125 | 73.1 |
| | Total | 171 | 100.0 |
| Marital status | Single | 41 | 24.0 |
| | Married | 126 | 73.7 |
| | Others | 4 | 2.3 |
| | Total | 171 | 100.0 |
| Residence | City | 152 | 88.9 |
| | Village | 19 | 11.1 |
| | Total | 171 | 100.0 |

Table 1. Distribution of the total sample according to the demographic characteristics.

(Table-1), The majority of the health care providers joined in the study are of age From the age of thirty and over table 4.1 indicates that the highest percentage is located in age group of (>30) which is (2.36%). According to gender, the sample of the study, which is (74.9%), is male. According to level of qualification all staff which is (40.9%) are institute, and the lowest percentage of nurses with higher degrees (7.1%). Regarding years of experiences in Six years and over years is (73.1 %.)It also showed the highest percentage of medical staff who are married. In addition, those who live in the city.

| Items | Rating | F. | % | M.S | S.D | Ass. |
|-------------|---------|-----|------|------|-------|------|
| Do you know | Correct | 157 | 91.8 | 1.08 | 0.275 | P |

| | | | | | | |
|---|-----------|-----|-------|------|-------|---|
| the difference between washing hands and rubbing hands? | Incorrect | 14 | 11.1 | | | |
| | Total | 171 | 100.0 | | | |
| Is wearing gloves an alternative to rubbing hands? | Correct | 54 | 31.6 | 1.68 | 0.466 | M |
| | Incorrect | 117 | 68.4 | | | |
| | Total | 171 | 100.0 | | | |
| Do you routinely rub your hands with alcohol for hand hygiene? | Correct | 108 | 63.2 | 1.73 | 0.484 | M |
| | Incorrect | 63 | 36.8 | | | |
| | Total | 171 | 100.0 | | | |
| Is it necessary to rub the hands after taking off the paws? | Correct | 118 | 69 | 1.31 | 0.464 | M |
| | Incorrect | 53 | 31 | | | |
| | Total | 171 | 100.0 | | | |
| Do you ask your senior colleagues or doctors about the process of rubbing hands? | Correct | 89 | 52.0 | 1.48 | 0.501 | M |
| | Incorrect | 82 | 48.0 | | | |
| | Total | 171 | 100.0 | | | |
| Is there any harm in using surgical paws on your hands? | Correct | 69 | 40.4 | 1.60 | 0.492 | M |
| | Incorrect | 102 | 59.6 | | | |
| | Total | 171 | 100.0 | | | |
| Are personal protective equipment (gloves, masks, gloves, etc.) always available at your workplace? | Correct | 104 | 60.8 | 1.39 | 0.490 | M |
| | Incorrect | 67 | 39.2 | | | |
| | Total | 171 | 100.0 | | | |
| | Correct | 64 | 37.4 | | | |
| | Incorrect | 107 | 62.6 | | | |

Table 2. Health Care Providers awareness about Knowledge related to hand hygiene

| | | | | | | |
|---|-----------|-----|-------|------|-------|---|
| Do you remember a specific situation that prevented you from applying a hand scrub? | Total | 171 | 100.0 | 1.63 | 0.485 | M |
| Have you received training on how to scrub your hands in the last 3 years? | Correct | 73 | 42.7 | 1.57 | 0.496 | M |
| | Incorrect | 98 | 57.3 | | | |
| | Total | 171 | 100.0 | | | |
| Are you satisfied with your knowledge about hand hygiene? | Correct | 130 | 76.0 | 1.24 | 0.428 | M |
| | Incorrect | 41 | 24.0 | | | |
| | Total | 171 | 100.0 | | | |
| Do you wash your hands before interacting | Correct | 124 | 72.5 | 1.27 | 0.448 | M |

| | | | | | | |
|---|-----------|-----|-------|------|-------|---|
| with the patient? | Incorrect | 47 | 27.5 | | | |
| | Total | 171 | 100.0 | | | |
| Do you wash your hands after interacting with a patient? | Correct | 164 | 95.9 | 1.04 | 0.199 | P |
| | Incorrect | 7 | 4.1 | | | |
| | Total | 171 | 100.0 | | | |
| In your opinion, does the manager of your organization have an impact on improving and enhancing hand-washing procedures? | Correct | 78 | 45.6 | 1.54 | 0.500 | M |
| | Incorrect | 93 | 54.4 | | | |
| | Total | 171 | 100.0 | | | |
| Is it important to publish hand hygiene posters in your department as a reminder to perform hand hygiene? | Correct | 166 | 97.1 | 1.03 | 0.169 | P |
| | Incorrect | 5 | 2.9 | | | |
| | Total | 171 | 100.0 | | | |
| To be a good example in performing the process of cleaning hands has an impact on others in this regard. | Correct | 159 | 93.0 | 1.07 | 0.256 | P |
| | Incorrect | 12 | 7.0 | | | |
| | Total | 171 | 100.0 | | | |

Table 3.

| | | | | | | |
|---|-----------|-----|-------|------|-------|---|
| Do you need a reminder in order to apply the process of cleaning hands? | Correct | 65 | 38.0 | 1.62 | 0.487 | M |
| | Incorrect | 106 | 62.0 | | | |
| | Total | 171 | 100.0 | | | |
| Is it important for the patient to ask you to clean hands? | Correct | 99 | 57.9 | 1.42 | 0.495 | M |
| | Incorrect | 72 | 42.1 | | | |
| | Total | 171 | 100.0 | | | |

Table 4.

Assessment levels (0.0_0.38) poor;(0.39_0.63) moderate;(0.64-1.00) good

Table (2) Appear that the overall health care providers approaches are associated to HH. The study result indicates that the overall evaluation acceptable awareness at mean score (1.39).

Results of table(2) shows that there were a the answers in the questionnaire about realization procedures and information of hand hygiene acceptable cognizance by the health care staff, and showed an unsatisfactory result the staff's difference between washing hands and rubbing hands, and wash hands after interacting with a patient is considered the basic link to reduce and suppress infection and prevent the spread of pathogens within the health institution, so care and awareness must be taken towards, and showed a high score of About the use of personal protective equipment such as gloves, masks, etc. in the workplace.

Discussion

Part I: Discussion of the Demographic Characteristics of the Study Sample, as Shown in Table (1) With respect to age group, the study finding revealed that the majority of study group were 30 years old and above. This finding agrees with that of The knowledge of hand hygiene among the healthcare workers of two teaching hospitals in Mashhad [15] who stated that the participants located in age group of (>30) constitute the majority. Concerning of

gender, the study finding revealed that majority in the study group were male. This finding is supported by [16 [17] also these results are consistent with [18], who showed in their study that most of the staff are males at a rate of 75% and 25% for females. In relation to educational qualification, the study finding displayed that majority of study group medical staff were associate degree graduates (institute). This finding was supported by [19]. Regarding the years of experience, the study finding indicated that the highest percentage in the study concerning years of experiences Six years and over. This finding was congruent with [20]. That who concluded that the years of experience in nursing were 5-7 years.

Part II: Discussion of the Overall Health Care Providers awareness about Knowledge related to hand hygiene, as Show in Tables (2):

In this section, awareness of hand hygiene was examined using a questionnaire according to the guidelines of the World Health Organization. The level of fulfillment of all information was of an average range of approximately at mean score (1.39). The results are consistent with previous findings [21-23]. They also showed poor practices a difference between hand washing and hand rubbing, and the result was similar to other studies as in [24]. Participants also considered the use of alcohol for hand hygiene to be an essential and important factor, which is consistent with [25-27]. They also considered that using gloves can be considered an alternative to rubbing hands because it is easy to use and does not require any effort, and this agrees with [28-29]. This sample demonstrated its ability to promote access to hand hygiene products. This is consistent with the previous study [30].

The evaluation results showed that there were no instructions or educational materials to update their knowledge about hand hygiene. They also seemed unprepared for the presence of future posters for health practices, and the lack of personal protective equipment among individuals in all Al Nasiriyah hospitals and their failure to adhere to it, in addition to the absence of continuous monitoring and evaluation. This is what the study results in principle indicated.

Conclusion

The study indicated that there is fair level of awareness of health staff in all hospitals in Nasiriyah Governorate toward (HH) with Poor hand washing and hygiene after Assessing the patient without any precautionary measures, and showed an unacceptable aspect in the absence of instructions, directives or future strategies regarding (personal protective equipment, sterilization techniques, etc.). There must be a system to improve the performance of health institutions to spread the commitment of health care staff and spread awareness about hand hygiene.

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