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ANALYZING THE AWARENESS OF NURSES IN RELATION TO THE PREVENTION OF HOSPITAL-ACQUIRED INFECTIONS IN ZAHEDAN'S TEACHING HOSPITALS 2014

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Abstract

Objective: Hospital infections are those infections are created in result of staying in hospital. These infections are the most critical issue of health care systems throughout the world. The awareness and knowledge of nurses enable them to have an important role to prevent from hospital-acquired infections. This study is aimed to awareness of nurses in relation to the prevention of hospital-acquired infections.

Procedures and Methods: This study is a kind of cross-sectional, descriptive-analytical that has been done over 100 employed nurses in Zahedan's teaching hospitals by using easy and convenient sampling method. Awareness of nurses in relation to the prevention of infection has been measured through self-made questionnaire in two areas: awareness to prevent transmission of infection to patient and to oneself, each area has 10 questions in Likert method. The results were extracted by using spss 19 and inferential statistic methods including ANOVA and independent t.

Findings:

The obtained results of this study showed that 83 percent of nurses were women and the other were men. 37 percent of them were single and 63 percent were married. The average age of them was 28.4 and the average of their service record was 5.82. The percent of projective, conventional, contractual and official nurses respectively are 28%, 32%, 15%, 25%. The average score of awareness about prevention of transmission of infection to patient 40.13 percent and awareness about prevention of transmission to oneself is 39 percent. There was significant relationship between taking part in workshops with awareness area about prevention of infection to patient ($p < 0.05$). There was also significant relationship

between official hiring of nurses with both area of awareness about prevention of transmission of infection to patient and to oneself ($p < 0.005$). There was not statistically significant relationship in other variables.

Conclusion: results showed that training workshops have had a major impact to promote the awareness of nurses about hospital-acquired infections; the official nurses also have had a more awareness than other nurses in this area. As a result, holding the workshops associated with hospital-acquired infection for nurses especially unofficial nurses can lead to increase the nurses' awareness who have a key role in controlling hospital-acquired infection.

Key words: awareness, prevention of infection, nurses

Introduction:

Hospitals are inevitable sources of malignant and opportunistic pathogens. Despite many progresses have been made in the field of control and prevention of hospital-acquired infection, this problem has been remained yet as the most important side effects of treatment and significantly it causes to mortalities and to increase the health care costs (1). Variable definitions of hospital-acquired infection have been stated. One of the most comprehensive of them knows hospital-acquired infection as one of those infections that is acquired from hospital or other healthcare service provider's centers; it means it was not exist at time of reception and the signs of it may be seen at hospital and in patients even after discharging or even in staffs of that center. (2,3). Some of the hospital-acquired infection is contracted from the infected patient, visitors or personnel. Human agent acquired pathogens from patients in different ways such as not washing hands before and after patient contact, inappropriate disinfection methods during treatment, unsuitable isolation. Hospital-acquired infection may also be revealed by contact with contaminated objects, contaminated respiratory equipments, gastrointestinal infections through soaps, lotions, oils, nurses' caps, invasive procedures such as catheterization (4-7). Among hospital-acquired infections the respiratory infection, blood circulation and urinary tract infection are more common. The infected patients have higher statistics such as organ dysfunction, to stay in special section for long term, high mortality rate than other hospitalized patients (8,9). Hospital-acquired infection is one of the worldwide health problems that both developed countries and poor countries have been affected by it (2). About 2 million people in America suffer from these infections each year which will cost about \$ 4.5 million annually and is the eleventh cause of death in the United States (10,11). Regarding the harmful impacts of hospital-acquired infection on individual and society, it is necessary the measures to be taken to control the infection and one of the method to ensure the control of infection is to

increase awareness and attitude and to improve the performance of nursing personnel (12, 13). Therefore, this study is aimed to analyze the awareness of nurses in relation to the prevention of hospital-acquired infections and it has been done in Zahedan's teaching hospitals.

Procedures and methods:

This study is a kind of cross-sectional, descriptive-analytical that has been done over 100 employed nurses in Zahedan's teaching hospitals by using easy and convenient sampling method. Awareness of nurses in relation to the prevention of infection has been measured through self-made questionnaire in two areas: awareness to prevent transmission of infection to patient and to oneself, each area has 10 questions in Likert method. The validity of questionnaire was assessed by 5 professors of nursing and reliability of questionnaire was obtained through calculation of Cronbach's alpha 0.8. For collecting data, after ethical approval of research project in vice chancellor for research of Zahedan's University of Medical Sciences and receiving letter of recommendation, researcher went to hospital and after coordinating with the hospital security, at first researcher explained the aim of the plan to the staff and after the verbal consent was obtained the questionnaires was distributed. At the beginning of questionnaire to inform people of their consent to participate in this study the text of "your cooperation in this matter means your informed consent to participate in this research. The information of this questionnaire is also confidential and you will not be faced with any danger" had been written. After completing the questionnaire, the questionnaire was collected by researcher and it was reviewed and if it was imperfect it was returned once again to the nurses and they were asked to complete the relevant sections, the results were extracted by using spss19 software and inferential statistic methods include ANOVA and independent t-test.

Findings: the obtained results of this study showed that 83 percent of nurses were women and the other were men. In addition, 37 percent of them were single and 63 percent were married. The average age of them was 28.4 and the average of their service record was 5.82. The percent of projective, conventional, contractual and official nurses respectively were 28%, 32%, 15%, and 25%. The average score of awareness about prevention of transmission of infection to patient 40.13 percent and awareness about prevention of transmission to oneself was 39 percent. There was significant relationship between taking part in workshops with awareness area about prevention of infection to patient ($p < 0.05$). There was also significant relationship between official hiring of nurses with both area of awareness about prevention of transmission of infection to patient and to oneself ($p < 0.05$). There was not statistically significant relationship in other variables.

Discussion:

The findings of research showed that the majority of subjects had medium awareness level in controlling hospital-acquired infection and this finding is in consistent with the results of other studies (14, 15). The results of the studies of Abdollahi et al showed that 26.5 percent of nurses had weak awareness, 69.3 percent of them had medium awareness and 9.5 percent of them had good awareness (12, 16). While, the most of participants in Farokhifar's study had had at least less necessary awareness about control of infection (17). Perhaps, the reasons for non-compliance of the results of above studies is that the training and clinical programs of centers that emphasizes the role of nurse to control of hospital-acquired infection has been different in the provinces.

The sufficient knowledge and awareness about the ways to transfer of infectious agents directly and indirectly is considered one of the essential factors in providing daily care of patient (18, 19)and it also enables nurses to have an important role to prevent, surveillance and treatment of infectious diseases and limitation the spread of infectious disease (20, 21).Then, for establishing the appropriate behavior due to the proper performance of nurses and other members of healthcare team about prevention and to control the hospital-acquired infection, it is necessary to provide the conditions and facilities for proper performance in sectors and, according to recommendation of the World Health Organization this behaviors must be analyzed through observation. (22)

Conclusion:

The result showed that the training workshops have had a significant effect to improve awareness of nurses about hospital-acquired infections, as well as official nurses have had a more awareness than other nurses in this area. As a result, holding workshops in relation to hospital-acquired infections for nurses especially unofficial nurses can cause to increase the awareness of nurses who have a key role to control hospital's infections. It also seems necessary to provide continuous training for increasing awareness, creating positive attitude and correcting the health behaviors for employees in different levels.

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