

Assessment of Health Workers Knowledge toward Occupational Health and Safety Program in Alkut City's Primary Health Care Centers

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Abstract

Health care workers are always exposed to physical, chemical, psychological and biological agents that affect their health. Regular information is serious for setting priorities necessary to enhance providers, health and safety, which healthcare facilities like other high danger workplaces are categorized by a high level of exposure to hazards agents, which significant danger toward health of workers.

A descriptive cross sectional study is carried out throughout (1/September/2019 to 1/September/2020) in order to assess the Health Workers Toward "Occupational Health and safety program" and to find out the relationships between knowledge's of health workers toward occupational safety and health program and their socio-demographic.

The study findings indicate that there is a significance relation among health worker's knowledge about occupational health and safety program with their level of educational and their age. As well as findings show that there is a highly significance relation between knowledge about occupation health and safety program with the training of course that health workers participated in.

The study concludes that health workers Age, level education, training course, monthly income, and Number of years of Employment Have a great effect on occupational health and safety program.

The study recommends Encourage health care workers to attend continuing education activities in the form of workshops, conferences, training programs, refreshing courses and review update related to "occupational health and safety program" and ministry of Iraqi health could improve the infections protective processes as "head cap, closed shoes, gloves, and frequent medical examination for communicable diseases" as hepatitis.

Keywords: *Assessment, health care workers, Occupational Health and Safety Program.*

Introduction

Occupational safety and health (OSH) is a very important issue that must be taken into consideration in any working environment. For the avoidance of accidents, OSH rules and regulation should be implemented. Occupational health and safety is a specialty covering several specialized areas with a wide scope. In the broadest context, it should seek to: encourage and preserve the greatest level of physical, emotional and social wellbeing of staff in all professions; avoid working environments that could adversely impact employee safety and wellbeing; In recent years, major

changes have taken place in workplace health and safety systems intended to prevent and monitor worries [1].

Occupational health is characterized as a multidisciplinary activity, as per the World Health Organization (WHO), aimed at: • the preservation and protection of workers' health, the prevention and management of occupational hazards and injuries, and the removal of occupational causes and conditions that are hazardous to occupational health and safety. Creation and promotion of safe and stable jobs, workplace conditions and organizations at jobs. Improving the physical, emotional and social well-being of staff and

encouraging the growth and preservation of their ability to work, as well as personal and social development at work. Facilitating employees to live economically and socially prosperous lives and to make a meaningful contribution to their sustainable growth [2].

About 100 million workers in many countries are subject to some form of workplace health threats, such as carcinogenic agents, instances of pulmonary or other physical illness, physical agents, noise, crowding, or stress-related work-related stresses. Chronic respiratory disease, cancer, degenerative disease in a variety of critical organ systems, birth defects, and genetic changes may be associated with exposure to harmful contaminants or physical hazards. It is predicted that these exposures will “result in 100,000 Americans dying from occupationally associated diseases each year, and an additional 400,000 cases of occupationally related diseases”[3].

In addition to, Occupational hazards cause multiple forms of injury or disability. The loss of human resources, which can lead to reduced productive and service capacity and in some serious situations, may result in the death of the workers. Thus, leading to the loss of competent staff. Also, in developing countries, poor professional performance of health care providers may undermine the quality of health care institutions, particularly among nurses. Hospitals have many unique hazards that may possibly affect the health of workers. Risk exposure throughout the hospital unit is highly variable. Exposure to chemicals can occur from disinfectants, sterilizers, cleaning compounds, anesthetic gas, mercury, and hazardous drugs. Biological hazards include viruses that cause hepatitis B, C, HIV, TB (MRSA), methicillin-resistant staphylococcus aureus and latex sensitivity[4].

Psychosocial, physical, biological, chemical and ergonomic variables may be grouped as health-related hazards related to health professionals. 29 physical types, 25 chemical types, 24 biological varieties, ten and 6 types of ergonomic and psycho-social potential hazards have been identified by “the American National Institute for Occupational Safety and Health (NIOSH)”[5].

Ever since people started working, workplace safety and health have been a matter of concern. Occupational disorders affect the entire organ system, including “respiratory diseases, musculoskeletal injuries, traumatic injuries, cardio-vascular diseases caused by work, hearing loss triggered by noise, dermatological problems, and psychiatric diseases”. Exposures to workplaces also

contain airborne toxins, ionizing radiation, ultraviolet and visible light, and the workplace can also be a vector of a wide variety of infectious diseases, including HBV, tuberculosis (TB), influenza and AIDS (hepatitis B virus)[6].

Methodology

A descriptive cross sectional study is carried out throughout (1/September/2019 to 1/September/2020) in order to assess the Health Workers Toward “Occupational Health and safety program” and to find out the relationships between knowledge’s of health workers toward occupational safety and health program and their socio-demographic. The study population included health workers who are working in Al-Kut City’s primary health centers.

The reliability of the question instrument which is determined by a pilot study and the validity is accomplished by a panel of (12) experts. The total items which are comprised in the question are (25 item). These items are distributed in three parts which comprise Occupational Health hazards experienced by Nurses. This part consists of (general information, about Knowledge items regarding definition, types, common hazards of Occupational Health and Safety) which included (6) items, Occupational health control measures which included (9) items, and Preventive Measures for Occupational Health Hazards. Which included (10) items. The data collected on an individual base, the questionnaire was filled by health workers themselves under the researcher supervision and each self-report takes between (25-30) minutes. The results analysis are investigated through SPSS, which descriptive and inferential statistical data analysis approach that comprises, “frequency, percentage, mean, standard deviation; t- test, Chi-Square, and ANOVA test”.

Results and Discussion

Table (1): The characteristics of participants showed 150 nurses; the majority of them was male. These findings go along with study that conducted by Umar and code (2017) who found that most of participant were male.

Concerning Age, the most age 20 – 30 year was. This finding in the same line with study that carried out by Awan and others (2017) who found that the most sample their age between 26-30 years. Regarding marital status, highest the percentage of married couples were in marital status. These findings consistent with

Hamad and Qassim (2019) study who stated that most of sample were Married [4].

Concerning the educational level, the results are showed that higher percent was of high school nursing. These results incongruent with study that carried out by Hamad and Qassim (2019) who reported that higher percentage of study sample were Bachelor's degree. Regarding the Monthly income of nurses, the results of current study depicts that higher percent of participant was Satisfied . These finding go along with study that conducted by Hamad and Qassim (2019) who stated that monthly income about most of sample was about 601.000-900.000 Iraqi Dinar [ID]) and this consider satisfied [4].

Regarding the Resident area, the finding revealed that majority of them in Rural area. This results not in the same line with study that carried out by Jouda (2006) to explore the extent of the ergonomically hazards among the employees of the Ministry of health in the Gaza Strip, who found that Cities represent the large portion of total sample. While on other hand go along with study that carried out by Nabiland others (2018) who found that majority of total sample belonged to rural these finding consistent with results of study under hand [7,8].

Table (2): The table shows preventive measures for occupational health hazards, higher percentage of participant their answer was right, while the mean of scores indicates to (1.597) the mean considers as moderate level.

The table(2) shows the overall occupational health hazards experienced by nurses, most of them their answer was right, while the mean of scores indicates to (1.511) the mean considers as moderate level. The total score mean of the knowledge of health care workers is 51.1%, which is considered as moderate knowledge levels. These results of study under hand at the same line with a study that carried out by Saqer (2014) who found that total mean of score was moderate level. This finding may be due the insufficient given that of adequate "training courses concerning dealing with risks through the work. The lack of continues follow up from the organizations of health and safety" in the health work situation that lead to create a chief problem and expose the health care workers to such dangers [11].

Presents the items occupational and safety program, according to questionnaire; the findings indicate that mean scores are displayed to moderate level among

all items. The finding of present study not in the same line with results of study that carried out by Abiodun and others (2018) he found when assess perception a knowledge of healthcare providers of job hazards in their work situation, also recognize their safety practices and them attitudes towards protecting themselves from hazards, who found that more than half of the respondents have good knowledge of occupational hazards [12].

Table (3): Revealed that there is no statistical significant relation among subdomain's of questionnaire study and gender. at $p = \text{or} \leq 0.05$, these findings go along with Abiodun and others (2018) who found there non association between gender and knowledge about occupational health hazards [12].

While that there is a significant association with subdomain's of questionnaire study and age at $p \leq 0.05$. these findings inconsistent with study that carried out by Ahmed (2019) who found that non-significant association among age with general knowledge on professional health and safety measures in originations health [13].

Table (4): Revealed that there is relationship among subdomain's of questionnaire study, Level of education .These findings consistent with study that carried out by Aluko and others (2016) who reported that there was, there is relation between the knowledge level and level of educational. Most of the respondents had at least high nursing school, that explains why the level of knowledge of occupational hazard is high and influenced by educational level. where it concluded that the level of education influences the health and safety issues [14]. Concerning training course, that there is relationship among subdomains of questionnaire study at $p \leq 0.05$.

The results were displayed that there is no statistical significance "association" between subdomain's of questionnaire study and marital status. at $p \leq 0.05$. These findings congruent with study that conducted by Sabita and others (2018) who reported that no association among marital status with level of knowledge on occupational health hazards at $p\text{-value} 0.45$ [15].

There is a significant association with subdomain's of questionnaire study and Income monthly at $p \leq 0.05$ this finding contrast with study that carried out by Alqam (2013) who reported that there are no significance difference at the level ($p = 0.05$) in the means of job hazards knowledge and perception, "Performance" Information, Safety measures, and satisfaction domain, according to monthly income [16].

Table 1 Distribution general information of sample

| Variables | Group | F. | % |
|---------------------|---------------------|-----|------|
| Age | 20 – 30 year | 88 | 58.7 |
| | 31- 40 year | 40 | 26.7 |
| | 41 – 50 year | 20 | 13.3 |
| | 51 – 60year | 2 | 1.3 |
| Gender | Male | 51 | 34 |
| | Female | 99 | 66 |
| Marital Status | Married | 92 | 61.3 |
| | Single | 55 | 36.7 |
| | Divorced | 3 | 2.0 |
| | Widowed | 0 | 0.0 |
| | Separated | 0 | 0.0 |
| Educational Level | High school nursing | 75 | 50% |
| | Nursing Institute | 67 | 45% |
| | College of Nursing | 8 | 5% |
| Monthly income | Enough | 54 | 36. |
| | Satisfied | 74 | 49.3 |
| | Not Satisfied | 22 | 14.7 |
| Resident | Urban | 8 | 5.3 |
| | Rural | 142 | 94.7 |
| Years of employment | 0-5 year | 83 | 55.3 |
| | 6-10year | 40 | 26.7 |
| | 11-15 year | 13 | 8.7 |
| | 16-20year | 5 | 3.3 |
| | 21and more | 9 | 6 |
| Training course | No | 88 | 58.7 |
| | Yes | 62 | 41.3 |

Table 2: Assessment of the occupational and safety program among nurses (N=150)

| Variables | Response | Percentage | Mean | Assessment |
|--|----------|------------|-------|------------|
| Control measures | Error | 37.4 | 1.651 | M |
| | Right | 62.6 | | |
| Preventive Measures | Error | 40.3 | 1.597 | M |
| | Right | 59.7 | | |
| Occupational Health hazards | Error | 48.9 | 1.51 | M |
| | Right | 51.1 | | |
| Overall occupational and safety program assessment | Error | 41.1 | 1.59 | M |
| | Right | 59.9 | | |

M: moderate low =1-166, moderate= 167-233, high 234-3

Table 3. The Association between Subdomain of occupational and safety program and socio-demographic of nurses by chi-square

| Socio-demographic | Subdomain | p. Values |
|-------------------|-----------------------------|-----------|
| Gender | Occupational Health hazards | 0.96 |
| | Control measures | 0.19 |
| | Preventive Measures | 0.013 |
| Age | Occupational Health hazards | 0.246 |
| | Control measures | 0.018 |
| | Preventive Measures | 0.133 |

Table 4. The Association between Subdomain of occupational and safety program and socio-demographic of nurses by chi-square

| Socio- Demographic | Subdomain | p. Values |
|--------------------|-----------------------------|-----------|
| Level of education | Occupational Health hazards | 0.001 |
| | Control measures | 0.001 |
| | PreventiveMeasures | 0.001 |
| Training course | Occupational Health hazards | 0.001 |
| | Control measures | 0.001 |
| | PreventiveMeasures | 0.001 |

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

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