Knowledge and Preventive behaviors Regarding COVID-19 among Health Care Providers at Primary Health Care Centers in Hilla City/ Iraq

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Abstract

COVID-19 is an ongoing pandemic, for which appropriate infection prevention and control measures need to be adopted. The study aimed to assess knowledge and practice of preventive behaviors among those who works at primary health care centers in Hilla City. Methodology: A non-probability (systematic sample) of 300 subject were selected throughout the use of non probability sampling approach and analyzed through the application of descriptive and inferential statistical data analysis approach that includes, frequencies, percentages; and Chi-squared test". Results: "Recent results indicate that 73% were young, 62% were males, graduated from a diploma in working as a nurses for less than 5 years as an experience without training courses and took social media as a source of information The results show that the majority (55.3% and 52.3) were Good knowledge and weak protective behaviors respectively. There is a statistically significant relationship between healthcare providers 'knowledge of COVID-19 and their protective behaviors at p-value <0.01". Conclusion: "This study found out that there is a relationship between good knowledge regarding COVID-19 among healthcare providers and poor preventive behaviors. There is a need for a improve practice at the place of preventive behaviors. Also, education and training on protection and protective measures are required to improve better practices at work during the COVID-19 pandemic response".

Key-wards: Knowledge, Preventive Behaviors, Health Care Providers.

INTRODUCTION

COVID-19 is a disease caused by the SARS virus COV-2, identified for the first time in the city of Wuhan, in China's Hubei Province in December 2019 [1]. "COVID-19 was formerly known as the 2019 novel corona virus (2019-Ncov) Respiratory system diseases by the World Health Organization (WHO) official name on behalf of COVID-19 was announced in February 2020 [2]. March 11, 2020 and the World Health Organization (WHO) outbreak COVID-19 announced [3]. This is an ongoing epidemic has been spreading very quickly, with more than 8.5 million confirmed cases and more than 0.47 million deaths worldwide as of June 22 2020 (GMT 01.18) " [4].

At the global level, and health care workers at the forefront of the containment "COVID 19 outbreak, diagnosis and management of patients. Unfortunately, health care workers have not also

been the source and means of transport nosocomial and community [5]. The burden of disease in both developed and developing countries worsened response strategies and management due to inadequate provision of personal protection equipment for workers in health care, environmental pollution, overcrowding, inadequate isolation facilities appropriate [6]. Deep knowledge supports the optimistic practices and appropriate in the work, which helps to deter the risk of infection [8]. Staff commitment is affected by the health care "control measures by their knowledge and practices towards COVID-19. Therefore, it is necessary to understand the knowledge of health care providers. Thus, this study aims to assess the knowledge and practice of preventive among those working in primary health care centers behaviors In Hilla, city".

METHODOLOGY

The study was conducted using descriptive quantitative assessment approach using the tools that have been questionnaire to explore the knowledge and preventive behaviors related to COVID-19 among workers in the field of health care.

Study instruments

Adopt and modified questionnaire measure the health care providers their knowledge and Preventive behaviors. This questionnaire was a developed as a screening tool to detect those likely to have or not have knowledge. The questionnaire was used as a data collection tool that included the following:

"Health care providers demographic information"

"Knowledge questionnaire related to COVID-19"

"Preventive behaviors related to COVID-19"

Study sample

By a "systematic random sample" of (300) subject is selected throughout the use of non probability sampling approach. The study sample is distributed throughout two primary health care sectors includes (Hill first and second).

Method of data collection

Data was collection through the use of a questionnaire and self-report of the health care providers. The researcher introduced himself to the participants and explained the purpose of the study in order to get oral agreement. The questionnaire fill out an answer by the participants (providers). Approximately each interview took (15 to 20) minutes.

Methods of Statistical

The used SPSS-ver.20 in order to analyze and evaluate the study data is used for "statistical data analysis approach using. Methodology of statistical data used descriptive analysis to describe

the study variables: frequencies and percentages".

They $\chi^2 obs. < \chi^2\ crit. =$ insignificantly

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RESULTS

In the frequency difference and percentage. Out of 300 participants in this study, aged (21-30 years) and formed (73%) of the study sample.
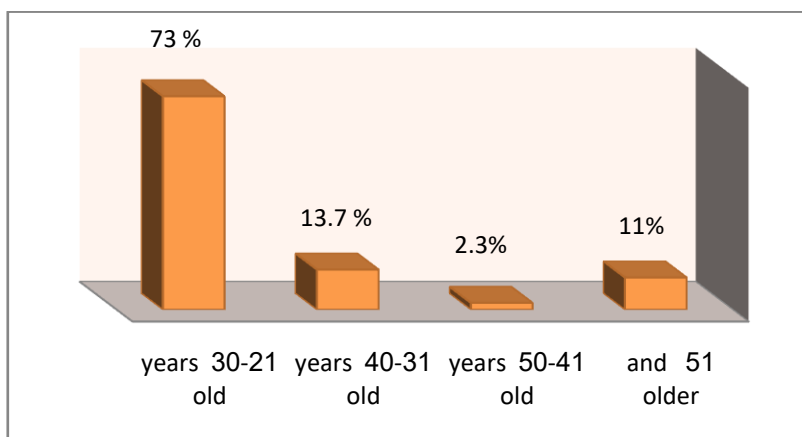

Figure 1.Distribution of health care providers by their Age

Findings show the female were predominate among study population and constituted of the highest percentage (62%) out total number.
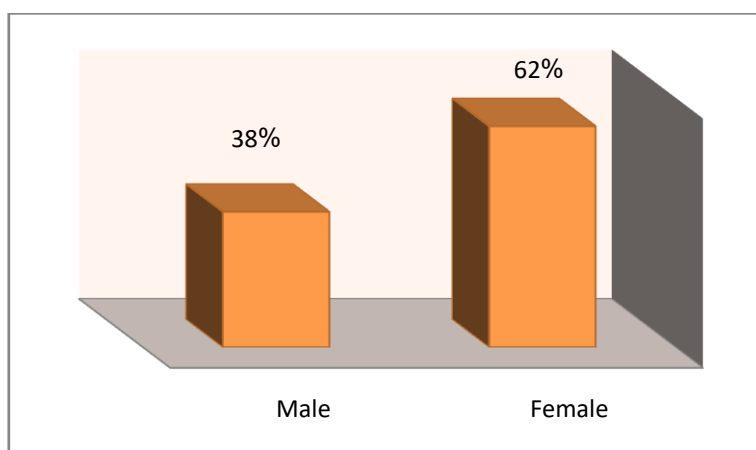

Figure 2.Distribution of health care providers by their Gender

It is obvious from results that diploma graduated were more than half of the study sample. It constituted (64%) out total number of the study population.
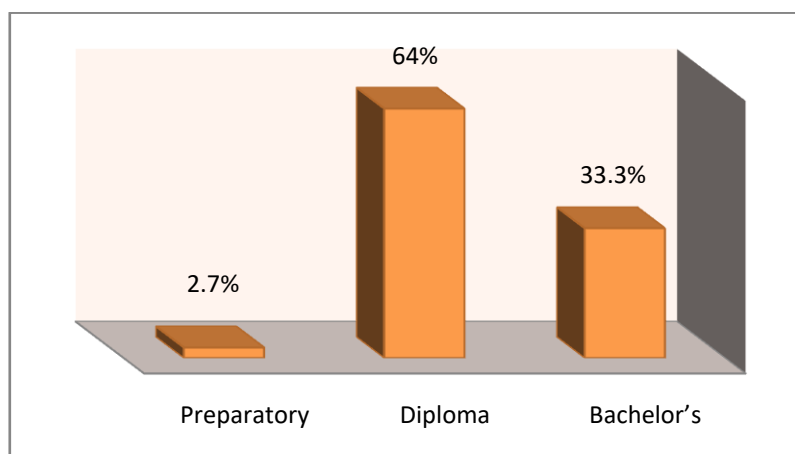
Figure 3.Distribution of health care providers by their Educational Level

The results reveals the distribution of study sample according to job title. Where the proportion of nurses was the majority, it constituted (38.7%) out total number. It's also, the physician among those findings small ratio.
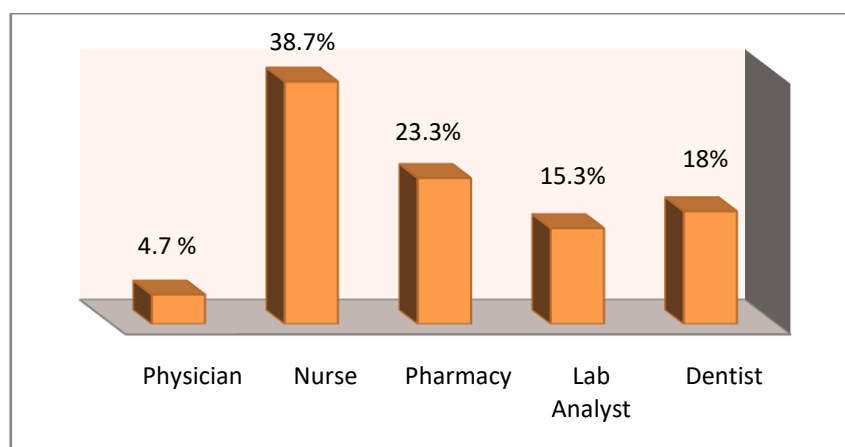

Figure 4.Distribution of health care providers by their Job Title

Figure depicts the health care providers were works less than five years in primary health care centers, it constituted (60%) out total number.
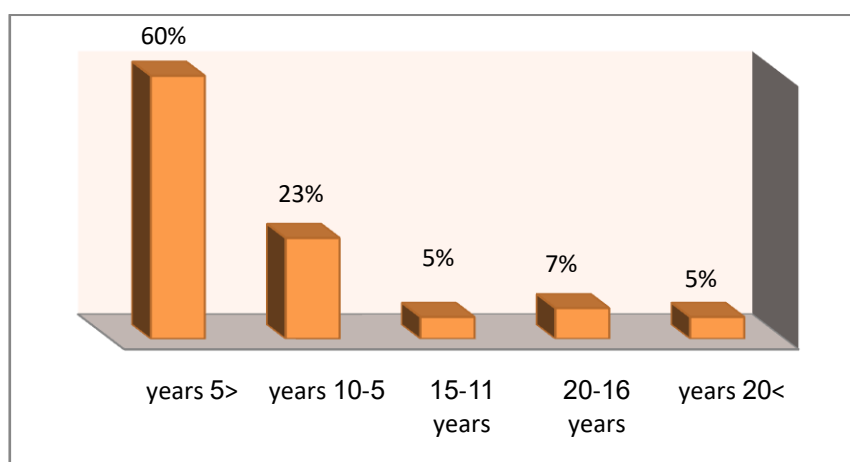

Figure 5.Distribution of health care providers by their Years of Experience

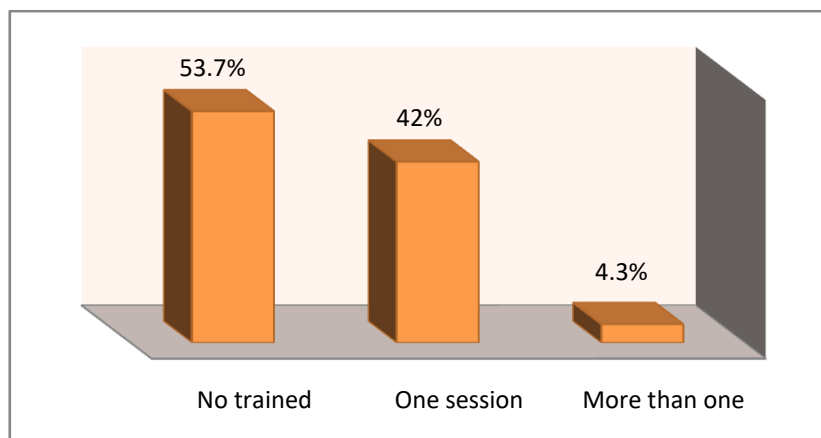Findings show that most of the study participants were not trained and constituted (53%) as a majority.

Figure 6.Distribution of health care providers by their Training Session

In term of frequencies and percentage, findings show that most of health care providers takes the social media as a sources of knowledge about COVID-19.
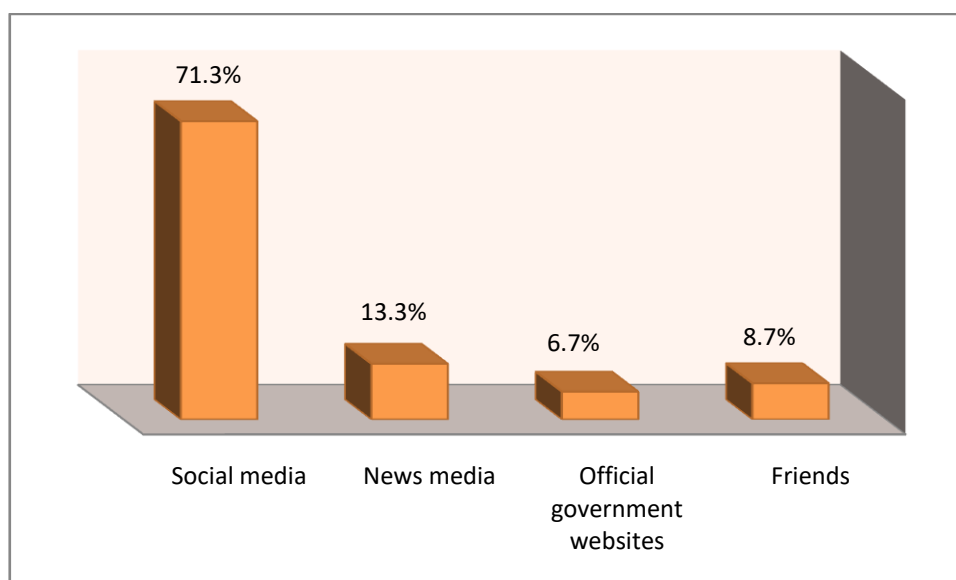

Figure 7.Distribution of health care providers by their Sources of Knowledge

Table 1: Overall assessment of health care providers knowledge related to COVID-19

	Rating	*N= 300*	*%*	*S.d.*	*M.s.*
Overall Knowledge	Poor Knowledge	30	10.0	0.670	2.45
	Average Knowledge	104	34.7		
	Good Knowledge	166	55.3		
	Total	300	100.0		

The findings presented the overall health care providers knowledge toward COVID-19 in Hilla primary health care centers. Finding reveals that the majority of (55.3%) were good knowledge.

Table 2:Overall assessment of health care providers preventive behaviors related to COVID-19

	Rating	*N= 300*	*%*	*S.d.*	*M.s.*
Overall Knowledge	Poor Practice	187	62.3	0.651	1.46
	Partially Practice	87	29.0		
	Good Practice	26	8.7		
	Total	300	100.0		

The findings presented the overall health care providers practice toward COVID-19 in Hilla primary health care centers. Finding reveals that the majority of (52.3%) were poor practice.

Table 3: Statistical Relationship between Health Care Providers Knowledge toward COVID-19 and their Preventive Behaviors

	Rating	Knowledge			Total	d.f	*Sig.*	
		Never	Partially	Always				
Knowledge	Poor Knowledge	8	3	19	30	4	χ^2obs.= 126.811 χ^2 crit.= 9.488 P-value=0.000	HS
	Moderate Knowledge	68	35	1	104			
	Good Knowledge	111	49	6	166			
	Total	187	87	26	300			

"χ^2obs. = Chi-square observer, χ^2crit. = Chi-square critical, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings presented there is a highly significant relationship between health care providers knowledge towards COVID-19 and their preventive behaviors at p-value <0.01 (χ^2obs < χ^2crit).

DISCUSSION

In the frequency difference and percentage. Out of 300 participants in this study, aged (21-30 years) and formed (73%) of the study sample. "These results come because the need for workers in the field of health care of young people was to cover the duties of better than older workers. "With regard to sex, the results show that females were predominant among the study population and accounted for the highest percentage (62%) of the total number, where health care providers male working in hospitals, institutions need to work hard. Is clear from our results that the diploma graduate was more than half of the study sample. They constitute (64%) of the total study population, due to the primary health care centers completely dependent on medical institutes graduates. The results reveal the distribution of the study sample according to job title. Where the percentage of nurses was the majority, it constituted (38.7%) of the total number. Among those findings, the physician is also a small percentage, since most of the study population are diploma graduates. In our findings, health care providers have been working for less than five years in primary health care centers, and they constitute (60%) of the total number, because most of them have new appointments, so we find them untrained and takes social media as sources of knowledge about COVID- 19, because social media is doing its job well for this epidemic is a new situation".

The result reveals that the majority (55.3%) was the correct answer for COVID-19. The results of this study with respect to 81.5% providers correctly answer the questionnaire

knowledge is comparable with a similar study conducted in China, which reported that 89% of workers surveyed health care survey showed sufficient knowledge about COVID-19 [7]. The study was conducted during the period of this national insurance in Nepal, and the health care workers is fully aware of most of the information on COVID 19 as part of being prepared to respond to this ongoing epidemic. Despite the differences in the demographic characteristics of health care workers ", it seems that knowledge to be on an equal footing with all of them. This is in contrast with other studies suggest differences in knowledge with different types of health care workers [8].

"The result reveals that the majority (52.3%) were poor practice. After knowing the best among COVID 19 workers in the act of health care is not in line with their practices towards the disease while working in this study. This result is in contrast with other studies that knowledge directly affected by their practices and increase their confidence" [7][8].

Interestingly, Chi-squared analysis revealed there is a highly significant relationship between health care providers high mean score knowledge towards COVID-19 and their low level mean score preventive behaviors at p-value <0.01 (χ^2obs $< \chi^2$crit). Statistically, whenever the level of a variable (knowledge) increases and decreased variable (practice), were the strongly differences. However, the practice significantly correlated with their knowledge. Thus, poor practices can be linked to good knowledge, due to not fear of pandemic. This finding consisting with findings conducted in South-Eastern Nigerian state, confirmed findings that knowledge significantly influenced practice (p = 0.029)[9].

Also, "finding is comparable to a similar study in China, which found 89.7% of the healthcare workers knowledge followed poor practices regarding COVID-19)[7]. Moreover, they cannot neglect their protection by engaging in best practices at work as they are the most vulnerable to infection" [10].

In contrast to the results at the beginning of the COVID-19 pandemic reported did not significant (p > 0.05) correlation between knowledge and practice [11]. The differences were come because the results showed that HCWs in their study demonstrated satisfactory knowledge and good practice towards COVID-19.

CONCLUSIONS

This study found out that there is a relationship between good knowledge regarding COVID-19 among healthcare providers and poor preventive behaviors. There is a need for a improve practice at the place of preventive behaviors. Also, "education and training on protection and protective measures are required to improve better practices at work during the COVID-19 pandemic response".

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