ORIGINAL ARTICLE

Evaluation of Health Care Professional Knowledge toward Integrated Management Childhood illness at First Health Sector of Amara

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ABSTRACT

Aim: Evaluate the educational program's effect on health care professional ' knowledge of the IMCI approach.
Methods: A quasi-experimental design was implemented in the research to achieve the study goals by using pre- and post-tests for one group of health workers This study was linked to the efficacy of an Integrated Childhood Disease Management Health Education Program in primary health centers in Al-Amara Region. The research was conducted during the time October 13th 2019 to April 1st 2021.
Results: A formal administrative approval to conduct this study was obtained fromMisan Health directorate and also obtained from each health workers through direct interviews .during the study period, a total of (25) health care professional   served in IMCI units in primary health care centers and met the study requirements and agreed to participate. Purposive study (Non-probability sample) were working in first health sector of Misan health directorate .
Conclusion: The study found that health care professional at primary health care centers in Amara's first health sector had a moderate level of knowledge about integrated management of childhood illness and there was no statistical significant association between nursing characteristic and their general information.
Keywords: Health care professional, knowledge, child illness, integrated management

INTRODUCTION

In low- and middle-income countries, over 11 million children die before reaching the age of five, with a large number of these deaths occurring during the first year of life., Diarrhea, Pneumonia , Malaria , Measles , and starvation are the leading causes of death in the United States. 70% of these deaths often in combination[1].

The Newborn and Childhood Illness Integrated Management Program involves educating healthcare providers in the management of common childhood diseases with an emphasis on infections of the respiratory system, in particular pneumonia, malaria, measles, diarrhea, and malnutrition. In addition, funding for health programs associated with prevent of specific illness and promote health of children was also included. The IMNCI training course initially lasted 11 days, but the course was shortened to seven or eight days in a variety of countries and locations[2].

The Ministry of Health has implemented health program assets focused on the systematic system of diagnosis and care, nutrition, etc., over the past 20 years. These multiple initiatives are incorporated into the IMNCI strategy and promise a detailed, integrated guide model for coping with major childhood diseases, especially those that are a major cause of mortality and morbidity[3].

The benefits of the IMNCI protocol in enhancing the quality of nursing care given to children have also been revealed by recent studies. An assessment of the IMNCI strategy in 12 countries around the world showed that health care workers' training improved the standard of care, decreased mortality of under -five years by about 13 percent, and increased use of government health facilities over its two-year implementation[4].

The importance of the IMNCI program to provide evidence-based curative and preventive interventions that have been shown to be effective, such as oral rehydration solution (ORS) for diarrhea, treatment of neonatal infections, pneumonia antibiotics and improvement of optimal feeding of infants and young children. So, it seems reasonable that the infant mortality rate should be reduced by this method. On a national level, Egypt was one of the countries in which it was implemented. A retrospective review of national data in Egypt also found that IMNCI implementation was correlated with a doubling in the annual reduction rate of under-five mortality since IMNCI was implemented[5].

METHODOLOGY

Design of the study: A quasi-experimental design was implemented in the research to achieve the study goals by using pre- and post-tests for one group of health care professional ,This study was linked to evaluate of an Integrated Childhood Disease Management instruction in first health sector of Amara . The research was conducted during the time October 13th 2019 to April 1st 2021.
Data collection: A formal administrative approval to conduct this study was obtained fromMisan Health directorate and also obtained from each health workers through direct interviews .
Sample of the study : During the study period, a total of (25) health care professionalserved in IMCI units in primary health care centers and met the study requirements and agreed to participate. Purposive study (Non-probability sample) were working in first health sector of Misan health directorate .
Study Instrument: The study instrument was prepared by the researchers after reviewing related literature and books that focus on the topic of the study. A structured-questionnaire was divides into two parts: The first part concerns the socio-demographic data of the health care professional such as age , gender, level of education, years of employment in health field, years of employment in

primary health care centers, type of primary health care center . The second part includes questions about health workers knowledge regarding integrated management of childhood illness was composed of (20) multiple choice questions as 3 points ,one of these points true and others false .

Validity of the study: The content of the validity for the early instrument and program was determined through the panel of experts who has had more than 5 years of experience in their specialty field(IMCI). A preliminary copy of the questionnaire and program were designed and presented to (5) experts .

Reliability of the study : A pilot study was carried out on (10) health care professional who was excluded from the study samples .

RESULT

Table 1 showed most of participants' age were 9 (36%) of in the study sample within (40-49 years) with Arithmetic Mean and standard deviation (41.84±10.119), This finding is consistent with Abd-Al-Wahed[6]. According to the study's results, the majority of nurses (54.3%) were between the ages of 40 and 49.the most of gender 18(72%) of participants in the study sample were male and this finding agrees with Al-Hreshawi[7] who found that more than half of the nurses in his study sample were male (65.7%). Education level finding revealed more of health workers

12(48%) in the study sample were diploma. This finding is consistent with the research sample Abd-Al-Wahed[6] Concerning the nurses' educational level. the majority of the sample (58.6%) were technician institute graduates, which agrees with Al-Hreshawi[7] who stated in his research sample that the majority of the study sample was technical institute (Technical Diploma) graduates (47.2%).

Regarding the years of experience in the fields of health were more than 4 years 21(84%),This result agrees with Abd-Al-Wahed[6] in relation to his study most of the study sample in relation to years of experience were (61.4%), also Al-Hreshawi[7] mentioned that study sample were more than half of his study (52.9%)

Regarding years of experiences in PHCCs, the majority of health workers have years of expert (≥ 4 years), as they showed 19(76%), Concerning type of primary health care center the most of participants were work in atypical health care center, 19(76%) of the participants in study sample.

The table 2 shows that the majority of health care professional have moderate level of knowledge 18(72%), with arithmetic mean and standard division (0.38±0.093) Also, shows high improvement in post-test 18(72%) in good level, with arithmetic mean and standard division (0.71± 0.087), This reflect the health care professional' knowledge affected by IMCI instructional lectures in the study sample at post-test.

Table 1: Data of demography distributed regarding study participants (n=25 health care professional)

Variables	Characteristics	Sample of the study		C.S.
		Freq.	%	P value
Age (years)	≥ 29	3	12.0	t-test p=0.730 NS
	30-39	6	24.0	
	40-49	9	36.0	
	≥ 50	7	28.0	
	Total	25	100.0	
	$\bar{x} \mp Std.$	41.84 $\mp$ 10.119		
Gender	Male	18	72.0	FEPT P=0.086 NS
	Female	7	28.0	
	Total	25	100.0	
Level of Education	Secondary School	11	44.0	t-test P=0.145 NS
	Diploma	12	48.0	
	Bachelor	2	8.0	
	Total	25	100.0	
Years of Experience in the Health field	2-4 years	4	16.0	FEPT P=0.164 NS
	≥ 4 years	21	84.0	
	Total	25	100.0	
Years of Experience in the Primary Health Care Centers	< 2 years	5	20.0	t-test P=0.702 NS
	2-4 years	1	4.0	
	≥ 4 years	19	76.0	
	Total	25	100.0	
Type of Primary Health Care Center	Typical	6	24.0	FEPT P=0.365 NS
	Atypical	19	76.0	
	Total	25	100.0	

Table 2: Overall evaluation of health worker's knowledge to IMCI for the study sample at pre-test and post-test

Test Period	Levels of Evaluation	Study sample	
		Frequency	Percent
Pre-Test	Deficit	7	28.0
	Moderate	**18**	**72.0**
	Good	0	0.0
	Total	**25**	**100.0**
	$\bar{x} \mp Std.Dev.$	**0.38 $\mp$ 0.093**	
Post-test	Deficit	0	0.0
	Moderate	7	28.0
	Good	**18**	**72.0**
	Total	**25**	**100.0**
	$\bar{x} \mp Std.Dev.$	**0.71 $\mp$ 0.087**	

DISCUSSION

The study's sample consists 25of health care professional they worked in the integrated management of childhood illness units in primary health care centers in first health sector. The most of age group were 34.0% of health care professional in the study within (40-49 years) respectively according to table 1. The findings reveal that there is no statistically significances association among health-care professional' knowledge and their ages at the time of the study (pretest, post-test), and there are no differentiation between age arithmetic mean of knowledge when tested by t-test . This result supported by AL-Saidi[8].

In regards to the gender of the study sample, the most of gender (60%) of health care professional in the study were male while (40%) of health care professional were female ,The results indicate that there is no statistically significances association among gender and their knowledge related to integrated management of childhood illness in the study sample in (pre-test and post-test) at (p value > 0.05), and no differences in gender arithmetic mean of knowledge when tested by t-test. Also Salih[9] as his finding shows no statistical significant association between nurses gender and their knowledge and nursing care.

The study finding showed the level of education, the more half of health care professional (48%) in the study have Diploma , In pre-test and post-test , t-test analysis revealed a statistically relevant association between the effect of the educational program on health workers' knowledge and their level of education for the sample group (P > 0.05). Shauq[10] revealed a statistically significant relation between a nurse's educational level and their knowledge.

In relation to the years of experience in the health field were more than 4 years (90%), In the pretest, post-test, analyses, a t-test shows that there is no statistically significant association between the effect of an educational program on health care professional ' knowledge and their years of experience in the field for the sample group (P > 0.05). this result agree with Adenkaya & Odetola[11]showed that nurses' years pf experience in pediatric setting had little or no influences on their knowledge related to IMCI.

Table 2 total of 20 questions divided into (3 Multiple Choices Questions) sub question for each main question were used to assess health care professional knowledge at integrated management childhood illness . The results indicated that the health care professional's knowledge revealed that most of participants in (study sample and control group) were at moderate level of knowledge 18 (72%) prior to start the educational program for study sampleThis result supported by Grace[12] stated in them study as 48(44.04%) respondents had fair knowledge to IMCI while 35(32.11%) respondents had poor knowledge to IMCI . also Kagoda[13] mentioned health care professional found to have poor knowledge to IMCI but will be better if they are trained. the results shows high improvement in study sample post-test1 18(72%)and post-test2 16 (64%) were good knowledge level to integrated management childhood illness this result supported by Joshi & Vasta[14] when theme result showed the majority of nurses had good knowledge to IMCI training program . this (table) at

the posttest, represent the effectiveness of an instructional program on the knowledge in the study sample of health-care professional.

CONCLUSION

The study found that health care professional at primary health care centers in Amara's first health sector had a moderate level of knowledge about integrated management of childhood illness and there was no statistical significant association between health care professional characteristic and their general information.
Recommendations: Modern educational facilities for health care professional team at IMCI unit should be provided to enhance health workers' knowledge .

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