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Evaluation of Nurses' Knowledge and Attitudes Concerning Fever Management for Children at Babylon Teaching Hospital for Maternity and Pediatric at Al-Hilla City

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Abstract

Background: Fever is part of the body's normal reaction to inflammatory or immunological disorders and infections. Since health care providers (HCPs) and parents are still a source of great concern, attempts have been made to include guidance for their management worldwide. Objectives of the study: To evaluate of nurses' knowledge and attitudes concerning fever management for children. Methods of the study: a descriptive design study was carried out (November/2018-April/2019) at Babylon maternal and child teaching hospital on (100) nurses, a convenience non probability study sample, the validity of the questionnaire was accomplished through (8) experts. The researchers were collected the data by self-administration report. Data analyzed by using statistical package for the social science (SPSS). Results: the result show that the (49%) of the nurses are college and above graduate. Regarding marital status, (64%) were married. In addition, the years of experience for nurses were (47%) less than 5 years. Concerning Participating in any training course, the most of nurses (57%) were participating in the training courses, and most of sample (90%) are lived in urban area, overall all assessment of nurses knowledge are moderate. Conclusions: the study conclude that Early adulthood nurses who were graduate with a college degree and above, married, who live in urban areas, and had experience from 1-5 years .as well as, who participated in training courses regarding fever management.

Key words: Nurses, Knowledge, Attitudes, Fever management, Children

Introduction

In pediatric patients, fever is a common complaint and a common concern in both the intensive care unit and the pediatric ward. Increased hospital stays lengths, increased morbidity, and greater impairment have been associated with elevated temperatures in infants. Fever is not a disease in itself; a virus or bacterial infection typically triggers it. It's believed to be part of the natural reaction of the human body to an infection. Childhood fever management is a dynamic behavior, with several research describing nurses' similar myths and misconceptions globally. To develop a deeper understanding of this difficult issue ⁽¹⁾.

In addition, until it exceeds at least 41.7°C, fever alone causes no damage. Fortunately, nearly all untreated

fevers due to infection < 41.7°C are maintained by the brain thermostat. Very high temperatures, however, are dangerous when the rectal temperature is 41 °C for long periods, resulting in some permanent brain damage. Heat stroke occurs when it's over 43°C and death is prevalent. Fever is also a physiological reaction to infection, marked by an increase in body temperature above normal everyday changes. The increase in body temperature is related to a decline in microbial replication, which tends to minimize the spread of the infection. ⁽²⁾.

For as many as one third of all pediatric consultation in general practice, fever is the most common signal of childhood diseases serving as the main complaint. In several countries, the use of antipyretic pharmaceutical drugs (acetaminophen and ibuprofen) is frequent and appears to be increasing. Many health professionals

view fever as dangerous and assess the severity of the disease by the height of the fever. The fever phobia of nurses is still recorded in the literature and negative fever attitudes remain unchanged. (3)

In addition, symptoms and indications indicating a diagnosis or at least referring to an organ system, such as headache, cough, diarrhea, dysuria, etc., are frequently accompanied. Furthermore, this is not always the case. For acute fever episodes, between 20 and 30% of all children’s visits to the emergency room are for acute fever episodes. Most illnesses cause a fever ranging from 38 ° C to 40.5 ° C with an average fever of 39.5 ° C (4). To determine fever, it is also important to consider the temperature measurement location. Internationally, childhood fever management is a complex behavior in which physicians, nurses and parents have some myths and misconceptions (this behavior is defined in more detail in the literature review. Therefore, this study aimed to evaluate the attitude of nurses in the field of childhood fever and awareness of childhood fever management (5)

Objectives of the Study

the study aim to:

- 1- To evaluation of Nurses’ knowledge and attitudes concerning Fever Management for Children.
- 2- To find out the relationship between Nurses’ knowledge and attitudes concerning Fever Management for Children and certain sociodemographic characteristics.

Methods and Materials: The study design: Descriptive design study was conducted from November/2018 to April/2019.

The study sample: by using a non-probability convenience sample of (100) nurses.

The study setting: The study was carried out at maternal Babylon and child teaching hospital

Statistical Analysis: using statistical package for social sciences (SPSS), version 24. Appropriate statistical tests were used accordingly, P. value ≤ 0.05 considered significant difference or relationship by using (Mean, ANOVA).

Instrument: Through an extensive review of related review, the instrument of the study was developed and constructed by the researcher. the Instrument comprise the following of three parts: A three-part questionnaire was used, the first part included an inquiry into participants’ socio-demographic characteristics, and the second part included questions about fever management skills (questions), while the last part included questions about the attitude of nurses towards fever management (questions). A level Likert scale was used for knowledge items to measure the variables (know, I not sure, and don’t know), 3= know, 2=I not sure and 1= don’t know.. The following statistical analysis approach is used in order to analyze and evaluate the results of the study (frequencies, percentages, mean of score, Poor= (1.00 – 1.66) ; Moderate = (1.67 – 2.33), Good= (2.34 – 3.00).

Results

Table (1): Shows the distribution of the demographical characteristics of the sample.

Demographic Data	Groups	Frequency	Percentage
Age / Years	20 to 29	72	72.0
	30 to 39	18	18.0
	40 to 49	6	6.0
	50 to 59	4	4.0
	Total	100	100.0
Resident	Urban	90	90.0
	Rural	10	10.0
	Total	100	100.0

Cont... Table (1): Shows the distribution of the demographical characteristics of the sample.

Marital Status	Single	36	36.0
	Married	64	64.0
	Total	100	100.0
Level of Qualification	Secondary Nursing school	17	17.0
	Health Institute	34	34.0
	College and above	49	49.0
	Total	100	100.0
Years of Experience	Less than 5 Year	47	47.0
	6-10 Year	29	29.0
	More than 10 Year	24	24.0
	Total	100	100.0
Participating any training course	Yes	57	57.0
	No	43	43.0
	Total	100	100.0

This table reveals that the majority of the sample (72%) of them their age between 20-29. concerning the level of qualification, results indicate that (49%) of the nurses are college and above graduate. Regarding marital status, (64%) were married. In addition, the years of experience for nurses were (47%) less than 5 years. Concerning Participating in any training course, the most of nurses (57%) were participating in the training courses. Lastly, in this table, the study results show that most of the nurses (90%) living in urban areas.

Table (2): Show the overall of assessment knowledge about fever management

Total	Classification	Frequency	Percent	Mean of scale	Std. Deviation	Assessment
Overall knowledge	Not Sure	52	52.0	2.299	.26125	Moderate
	Know	48	48.0			
	Total	100	100.0			

This table revealed the overall responses of nurses regarding fever management knowledge, which was moderate with total mean score of (2.299).

Table (3): Show the overall assessment of attitude about fever management

Total	Classification	F	%	Mean	S.D	Assessment
Over all Altitude	Not sure	54	54.0	2.1455	.16408	Moderate
	Agree	46	46.0			
	Total	100	100.0			

This table revealed the overall responses of nurses regarding fever management Attitudes, which was moderate with total mean score of (2.1455).

Table (4): Analysis of variance of nurse’s knowledge and their demographical characteristics

Demographic Data		d.f	Mean Square	F	Sig.
Age	Between Groups	21	65.114	1.171	.299
	Within Groups	78	55.588		
	Total	99			
Marital status	Between Groups	21	.295	1.363	.164
	Within Groups	78	.216		
	Total	99			
Environment	Between Groups	21	.096	1.073	.394
	Within Groups	78	.090		
	Total	99			
Years of Experiences	Between Groups	21	.972	1.674	.054
	Within Groups	78	.581		
	Total	99			
Level of Education	Between Groups	21	.706	1.344	.175
	Within Groups	78	.525		
	Total	99			
Participating any training course	Between Groups	21	.396	1.905	.022
	Within Groups	78	.208		
	Total	99			

This table indications there was no statistical significant relationship between nurses’ knowledge regarding fever management and their sociodemographic characteristics except Participating in any training course whereas there was statistical significant relationship between nurses’ knowledge and participation in any training course at p-value 0.022.

Table (5): Analysis of variance of nurse's attitudes and their demographical characteristics

		D.F	Mean Square	F	Sig.
Age	Between Groups	20	80.503	1.554	.087
	Within Groups	79	51.813		
	Total	99			
Marital status	Between Groups	20	.303	1.411	.142
	Within Groups	79	.215		
	Total	99			
Environment	Between Groups	20	.086	.932	.550
	Within Groups	79	.092		
	Total	99			
Years of Experiences	Between Groups	20	.955	1.620	.068
	Within Groups	79	.590		
	Total	99			
Level of Education	Between Groups	20	.577	1.031	.438
	Within Groups	79	.560		
	Total	99			
Participating any training course	Between Groups	20	.335	1.486	.110
	Within Groups	79	.225		
	Total	99			

This table shows there was no significant relationship between nurses' attitudes regarding fever management and their sociodemographic characteristics

Discussion

1- Sociodemographic characteristics of the sample:

The study result reveals that the vast majority of the sample (72%) of them their age between 20-29. concerning the level of qualification, results indicate that (49%) of the nurses are college and above graduate. Regarding marital status, (64%) were married. In addition, the years of experience for nurses were (47%) less than 5 years. Concerning Participating in any training course, the most of nurses (57%) were participating in the training courses. Lastly, the study

results indicate that most of the nurses (90%) living in urban areas.

This result consistent with the study that carried out by descriptive research design who found that the majority of sample their age between 20-30 years ⁽¹⁾. Concerning years of experience, the results of study under hand incongruent with study that carried out by quantitative cross-sectional survey to investigate fever management practices among physicians and nurses in Hebron district, who found that majority of participant has experience above 15 Years with 28% ⁽⁵⁾. The findings of the study not in the same line with study that

conducted in Egypt⁽⁶⁾ aimed to assess nurses' knowledge and practice regarding to fever management of neonates. Who found that majority of sample not participation in training course. Finally, regarding years of experience, the findings of present study incongruent with study that carried out by⁽⁵⁾ who found the most of sample with years' experience (33.9%) more than 10 years.

2- Show the overall assessment of attitude about fever management

The study revealed the overall responses of nurses regarding fever management knowledge, which was moderate with total mean score of (2.299). the results of current study not in the same line with study that carried out by a cross-sectional descriptive design to test the knowledge of nurses about fever found that about half of the sample had low knowledge of fever and fever control.⁽⁷⁾

3- Show the overall assessment of attitude about fever management

The study revealed the overall responses of nurses regarding fever management Attitudes, which was moderate with total mean score of (2.1455). The findings of study under hand not harmony with the results of the study that conducted in Egypt⁽¹⁾ who reported that the most of nurses had positive response about attitudes toward fever management.

4- Analysis of variance of nurse's knowledge and their demographical characteristics

The study result shows there was no statistical significant relationship between nurses' knowledge regarding fever management and their sociodemographic characteristics except Participating in any training course whereas there was statistical significant relationship between nurses' knowledge and participation in any training course at p-value 0.022. these results go along with study that carried out in Ireland, who found that there no significant difference in the total knowledge scores of nurses and level of education at p-value= 0.836⁽⁸⁾. While, the results of the present study congruent with the prospective one-group pretest-posttest design to investigates the effect of the training on fever and febrile convulsion management given to pediatric nurses on their knowledge level, who found that there

was statistical relationship between training about fever management and pediatric nurses knowledge⁽⁹⁾.

5- Analysis of variance of nurse's attitudes and their demographical characteristics

The study shows there was no significant relationship between nurses' attitudes regarding fever management and their sociodemographic characteristics. These findings consistent with the study that carried out by⁽⁸⁾ who found non statistical significant between demographical characteristics of the sample such as level of education and nurse's attitudes.

Conclusion: Early adulthood nurses who were graduate with a college degree and above, married, who live in urban areas, and had experience from 1-5 years .as well as, who participated in training courses regarding fever management. The overall knowledge of participant nurses was moderate. The vast majority of the participants' nurses had a moderate attitude toward fever management. The socio-demographic characteristics of nurses had not been the effect on their knowledge, except participation in the training course; where shows a significant association between nurse's participation in any training course and their Knowledge about fever management had been reported. No significant association was found between nurses' attitude toward fever management and their socio-demographic characteristics.

Recommendations: The results indicate that changes in pediatric nurses' management practices are needed. Educational programs are advised to improve pediatric nurses' awareness of fever control and to reinforce positive attitudes towards childhood fever. The study indicated that certain training and seminars on fever control are required to enhance the awareness of nurses. Providing up-to-date training services to educate nurses can be a successful way of changing the management of fever by nurses, reinforcing positive attitudes, challenging negative attitudes, and enhancing the quality of knowledge provided to parents about fever when their child is discharged home. Continuous monitoring and examination of nurses is needed to assess any knowledge-related defects. The current process should be more studies on the nursing management of fever and the physiological responses associated with fever and all nurses should be involved in this process.

Conducting health education activities to include a general reduction in fever phobia for both nurses and parents and to facilitate safer drug use.

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

Conflict of Interest: The authors declare that they have no conflict of interest.

Funding: Self-funding

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