



Evaluation of Nursing Staff's Knowledge and Practice Regarding Care of Women with Preterm Birth

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ABSTRACT

Background: Preterm birth is an important perinatal health problem, contributing to increased mortality risk of children younger than 5 years directly and maternal mortality indirectly. Thus, reducing the incidence and mortality of preterm birth is significant.

Objectives: To evaluate the nursing staff's knowledge and practices regarding caring for women with preterm birth. And to find out the relationship between nursing staff's knowledge and practices and their sociodemographic data.

Methodology: A descriptive design was conducted on the non-probability of (49) nurses from four hospitals in Baghdad city.

Results: 21(42.9%) of nursing staff have a fair level of knowledge, and 38(77.6%) have good practice. There is a high significant relationship between nursing staff knowledge, practice and experience years.

Conclusion: the nursing staff having a moderate level of knowledge, and a high level of practice in the care of women with preterm birth.

Recommendations: Updating knowledge through training are important for nursing care of women who have given birth prematurely to improve their skills and performance to find appropriate solutions to the problems.

Keywords: Evaluation, Knowledge, Practice, Preterm birth, Nursing staff.

INTRODUCTION

Preterm birth [PTB] is defined by the World Health Organization as all births occurring before the completion of 37 weeks of pregnancy or 259 days after the last day of a woman's menstrual cycle (1, 14). It is a major source of death and long-term human loss in many parts of the world. Preterm delivery problems are the leading cause of neonatal fatalities,

accounting for 35 percent of the world's (3.1) million deaths yearly and the second leading cause of death in children under five after pneumonia (2). Additionally, PTB is responsible for 75% of neonatal mortality, 70% of short & long-term neonatal morbidity, and 50% of the term neurological impairments in children. (3, 4 and 5). Every year, an estimated 13 million babies

are born prematurely. So, it is important to focus on this issue as there is little research on preterm birth nursing care in Iraq ^(6, 7); most of the preterm labor studies emphasized medical intervention; thus, little is thought about the nursing role. As nurses are the ones who are responsible for administration and follow-up therapy to pregnant women in preterm labor as well as the quality of care provided to the patients, their perspectives on the effectiveness of their care are very important; thus, the present study is very important as it was directed to evaluate nursing care toward preterm labor. Much research has focused on specific parts of the subject matter. But it did not address the evaluation of nurses' knowledge and practices ⁽⁸⁾. When caring for women experiencing preterm labor and birth, nurses play a significant role as bedside experts, advocates, patient educators, and critical members of the maternity care team. Enhanced expertise in clinical and professional knowledge of preterm labor and birth is crucial in prevention and treatment. As preterm birth rates continue to rise, perinatal nurses as well-informed clinical experts can offer innovative education, holistic assessments, and communication through shared decision-making models. Educating pregnant women about early recognition of preterm labor warning signs and symptoms allows for timely diagnosis, interventions, and treatment. Informed and collaborative nursing practice improves the quality of clinical care based on individualized interactions. A clinical review of preterm labor and preterm birth is presented for perinatal nurses ⁽⁹⁾.

AIMS OF THE STUDY

To evaluate the nursing staff's knowledge and practices regarding caring for women with preterm birth. And to find out the relationship between nursing staff's knowledge and practices and their sociodemographic data.

METHODOLOGY

Design of the study: A descriptive design, which is using throughout the current study to evaluate the nursing staff's knowledge and practices regarding caring for women with preterm birth. The study has been carried out in four public hospitals, including (Al-Elwya Maternity Teaching Hospital at Al-Russafa Health Directorate, Baghdad Teaching Hospital at Baghdad health Directorate, and Al -Karckh Maternity Hospital, and Al-Yarmook Teaching Hospital at Al-karckh Health Directorate).

The study sample: purposive sample of (49) nurses (morning staff). The inclusion criteria include nurses working in the delivery room ward, and the workload for each nurse was 8 hours. The exclusion sample included nurses working in the neonate intensive care unit, nurses working in the operating room, and nurses working in the gynecological ward.

Ethical aspects and conflict of interest are obtained from the "Ministry of Health / Al-Russafa Health Directorate / Al-Elwya Maternity Teaching Hospital, and Baghdad Teaching Hospital /at Baghdad Health Directorate, and from Al-karckh Health Directorate at Al-Karckh Maternity Hospital, and Al-Yarmook Teaching Hospital", and All nurses participating in the research agreed to participate voluntarily.

Study instrument: Data collection was gathered using a questionnaire format which consists of three parts, including

Part I: socio-demographic data

This part consists of the demographic data, which comprises different items that include general information about nurses such as age, educational level, years of experience, and attendance course.

Part II: nurse's knowledge

this part consisted of (80 items) as follows (1 item for definition of preterm birth, 14 items for signs and symptoms, 19 items for causes, 19 items for risk factors, four items for diagnosis, 10 items for management, seven items for complications, and 7

items for prevention). Three-point Likert scale is used for rating the items as right, uncertain, and wrong, which is scored as 3 for right, 2 for uncertain, and 1 for wrong-the higher-grade scoring on the questionnaire (MS) as a greater knowledge of preterm birth.

Part III:

This part relates to nurse's practices and consists of (9 items) assessed using an observation checklist containing a 3-point Likert scale (always score 3, sometimes score 2, never score 1).

Validity and Reliability: The instrument's content validity was tested by 10 nursing professionals from various specialties, and the items' reliability was through the computation of Alpha Cronbach's test (Alpha Correlation Coefficient), the internal consistency method was used to determine the reliability.

Statistical analysis: The descriptive and inferential statistics used to analyze and assess the study's results under applying the statistical package of social science (SPSS) version 24.0. The statistical measures were in the form of means, frequencies, and percentages. In addition, the Likert Scale has been used for the evaluation scores. The graphical presentation included a Pie chart. All results were considered statistically significant at the 5% level ($p \leq .05$).

RESULTS

Table (1) presents that the highest percentages (40.81%) were in the age group (20-24) years old, regarding the educational level (59.2%) of secondary school nursing graduates. Regarding the nursing staff's experiences, the highest percentage (46.9%) was in groups (6-10) years of experience. Finally, related to attending courses about preterm birth, the highest percentage of the study sample said they had no courses toward preterm birth, and they are accounted for (71.4%).

Figure (1) indicates that most nursing staff have a fair level of knowledge about the care of women with preterm birth and accounted for 21(42.9%). Figure (2) indicates that most nursing staff have a good practice in caring for women with preterm birth and accounted for 38(77.6%).

Table (2) presents the association between nursing staff knowledge and practices about preterm birth with their demographic data, which found a high significance between experience years and nursing staff knowledge and practices at p value=(0.000). In addition, there is a significant association between educational level, attendance course with nursing staff knowledge and practices at p -value =(0.035, 0.046, 0.021, and 0.036) respectively, and a significant association between nursing staff practices and their age at p -value =(0.007). While there is no relationship between their knowledge and age at p -value = (0.315).

DISCUSSION

The current study found that a high percentage of the study sample has a good level of knowledge, representing (55.1%), while (42.9%) of them are within the medium level of knowledge. And (77.6%) have a good level of practice, and only (14.3%) have a fair level of practice that is mean the staff had worked many years in the maternity wards and delivery room, so they got good knowledge and skills as it present that most of them have (6-10) experience's years, and due to nurses are considered the key elements in critical care. They must keep pace with the rapid changes in health care and provide quality patient care cost-effectively. A study conducted in 2010 revealed that a better understanding of the causes of preterm birth and improved estimates of the incidence of preterm birth at the country level are needed to improve access to effective obstetric and neonatal care ⁽¹⁰⁾. Another study pointed out that the nursing staff have a crucial role in screening pregnant women who are at risk for

premature labor, assuring that these patients would be under effective treatments, and educating the patients to change their health behavior and self-care while they receive progesterone to prevent from preterm birth. Educate pregnant women who are at risk for premature labor to be able to notice early signs and symptoms that may have occurred by themselves and come to the hospital in time for treatments ⁽¹¹⁾. Moreover, nurses should have the necessary basic knowledge and technical skills to offer care safely and be trained accurately in practical and technical procedures to use this knowledge effectively ⁽¹²⁾. Nursing personnel should play an essential role in this area as educators as well as health promoters of patients. Additionally, they should collaborate with other health professionals to determine the effectiveness of therapy and, therefore, the causes of preterm labor ⁽¹³⁾. prematurity poses a problem to public health as several risk factors are involved. So, the professionals, thus, must have enough knowledge to identify the risk factors at an early stage and consider the hypothesis that a single factor was not responsible for the premature birth. Still, they must bear in mind that this fact with multiple causes, which might be accounted for triggering this complication. By doing so, the outcome of each case may be satisfactory and maternal and fetal morbidity may be prevented ^(15, 16).

Also, the study shows a strong link between nursing staff knowledge and practices and years of experience at p value=(of 0.000). Furthermore, there is a significant association between educational level, attendance course with nursing staff knowledge and practices at p -value = (0.035, 0.046, 0.021, and 0.036), and a significant association between nursing staff practices and women's age at p -value = (0.007). While there is no relationship between nursing staff's knowledge and women's age at p -value = (0.315). These results do not agree with the studies carried out in Iraq country at (2016), which revealed that neither the years of experience nor the place of work

influenced knowledge about preterm labor and tocolytics drugs. Concerning nurses' skills in the nursing care of preterm labor and the care of tocolytics, it was found that the place of work and years of experience didn't influence these skills ⁽⁹⁾.

CONCLUSION

The nursing staff having a moderate level of knowledge, and a high level of practice in the care of women with preterm birth.

FUNDING

This research received no specific grant from any commercial or not-for-profit funding agency.

RECOMMENDATION

Updating knowledge and practice through training are important for nursing care of women who have given birth prematurely to improve their skills and performance to find appropriate solutions to the problems.

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TABLES & FIGURES

Table (1): Distribution of Nursing Staff Sociodemographic Characteristics.

Variables	Groups	(N=49)	
		Freq.	%
Age Groups (Per Years)	Less than 20	1	2.04%
	20 _ 24	20	40.81%
	25 _ 29	15	30.61%
	30 _ 34	7	14.3%
	35-39	1	2.04%
	40 -44	3	6.12%
	45 & more	2	4.08%
Educational level	Secondary school nursing	29	59.2%
	Medical Institute	18	36.7%
	Nursing college	2	4.1%
Experience's years	Less than one year	16	32.7%
	1-5	4	8.16%
	6-10	23	46.9%
	11-15	2	4.08%
	16 years & more	4	8.16%
Total		49	100%
Attendance courses	Yes	14	28.6%
	No	35	71.4%
	Total	49	100%

freq.=frequency.

Figure (1): Distribution of Nursing Staff's knowledge Regarding the care of Women with Preterm Birth



Figure (2): Overall Nursing staff's Practices Regarding the care of Women with Preterm Birth



Table (2): Association between Nursing Staff's Knowledge and Practices with Sociodemographic Characteristics.

Socio-demographic variables	Nursing staff's Knowledge		Nursing staff's Practices	
	P- value	Sig.	P- value	Sig.
Age	P=0.315	NS	P=0.007	S
Educational level	P=0.035	S	P=0.046	S
Experience years	P= 0.0001	HS	P= 0.0001	HS
Attendance Courses	P= 0.021	S	P= 0.036	S

HS: Highly Sig. at $P < 0.01$; NS: Non-Sig. at $P > 0.05$.