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ORIGINAL RESEARCH

Effectiveness of Structured Teaching Program Regarding Placental Examination among Staff Nurses at Baghdad Teaching Hospitals

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ABSTRACT

Objectives: The study aims to evaluate the nurse-midwives' knowledge and practices regarding placenta examination in a delivery room in Baghdad teaching hospitals.

Methodology: A quasi-experimental study was conducted on non-probability of (50) nurse-midwives who work in the delivery room at Baghdad Teaching Hospitals.

Results: The result of the study indicates that the highest percentages of study participants were in the age group (30-34) years old; most of them graduated from nursing preparatory and have (6-10) years of experience in general and specific specialties without attending any courses about placental examination. Also, there are increased knowledge and practice levels in post-test after receiving a structured teaching program.

CONCLUSIONS: The nurse midwives have a moderate level of knowledge, and practice after receiving structured teaching program about placental examination.

Recommendations: The study recommended that nurse midwives update their knowledge through training and attend courses related to principal practice regarding placental examination, which also aids in improving their skills and performance.

Keywords: Effectiveness, structured, placental examination, Staff Nurses.

INTRODUCTION

The placenta is a special and unique organ made up of both maternal and fetal components. In theory, every placenta should be examined in either the delivery room or the pathology unit. this examination will provide information that may be important to the care of both mother and newborn baby. The examination can be performed by any trained individual such as a nurse or aide; do not have to be a pathologist or an obstetrician. However, these personnel may not be available in most hospitals and there are also few pathologists who specialize in this area. In general circumstances, the initial examination is very simple and takes only a few minutes, but it is very useful especially in cases where significant clinical signs and symptoms do not appear immediately after birth (1). The placenta plays a major role in the health of both the fetus and the mother and has a lifelong impact on their well-being

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in the future. In fact, placental growth disorder is the primary defect in major pregnancy diseases, such as preeclampsia, fetal growth restriction, recurrent miscarriage, impaired neurodevelopment or fetal growth restriction and stillbirth [2], so the placenta is a source of important information to explain the results of pregnancy and postpartum management, and this is achieved by conducting an examination of the placenta in all cases, whether normal or any complications of pregnancy, childbirth, and fetal abnormalities at birth and this was researchers aim in current study to determine the level of knowledge among nurses about placenta examination, to prevent placental abnormalities that can affect the health of both the fetus and the mother. Thus, placenta screening can yield information about the impact of maternal disorders on the fetus and may be possible to determine whether the pathological condition endangering the health of the fetus is an acute or chronic process [3].

AIMS OF THE STUDY

To evaluate the nurse- midwives' knowledge and practices regarding placenta examination at delivery room in Baghdad teaching hospitals.

METHODOLOGY

Design of the study:

A quasi-experimental study design, which is using throughout the current study. The study has been carried out in four public hospitals, including (Al-Elwyia 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 (50) nurses. 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:

are obtained from the "Ministry of Health / Al-Russafa Health Directorate / Al-Elwyia 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 by application session to nurse midwifes regarding placenta examination which were designed and scheduled for approximately (60-90) minutes, and by 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 (37 items): as follows (19 item of knowledge of nurse – midwifes about the placenta examination after delivery, 9 items about clinical characteristics of placental, membrane and umbilical cord,7 items about referral of placenta for examination, 2 items about retained placenta).To evaluate the knowledge of the study sample that are based on mean of scores (MS) and cut-off-point. The knowledge questionnaire was multiple choices have been scored and rated on two levels dichotomous scale correct answer and incorrect answer, (2) points for the correct answer and (1) point for the incorrect answer the higher-grade scoring on the questionnaire (MS) as a greater knowledge about placental examination.

Part III: nurse's practices: this part consisted of (23 items) assessed using an observation checklist containing a 3-point Likert scale (always score 3, sometimes score 2, never score1).

Validity and Reliability:

The instrument's content validity was tested by 8 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 ($p \leq 0.05$).

RESULTS

Table (1): shows that the highest percentages (28.0%) of study sample, which were at age group (30-34) years old, (48.0%) were graduates from nursing preparatory, and (48.0%), (46.0%) respectively at groups (6-10) years of experience for both the general & specific specialty. Finally, related to attendance courses about placental examination all study sample did not receive any courses toward placental examination, and they are accounted (100%).

Figure (1): Nurse midwife's knowledge about placental examination (Pre-posttest): which shows there were increase in nurse-midwives' knowledge after receiving a structured teaching program about placenta examinations.

Figure (2): Overall knowledge of Nurse midwifes about placental examination (Pre-posttest)

Table (2): This table indicates that in pretest the most of nurse midwives have low level practice about placental examination and accounted 37 (74%), and just 13(26%) have moderately level of practices toward placenta examination. While in posttest all of them have moderate practice about placental examination.

DISCUSSION:

This current study showed that the highest percentages (28.0%) of the study sample were in the age group (30-34) years old. (48.0%) were graduates from nursing preparatory. (48.0%) & (46.0%) respectively have (6-10) years of experience in general & specific specialties, and all do not receive any courses toward the placental examination. The results of this study are similar to the Egyptian study, which shows that more than half of the nurses (61.9% and 57.2%) from Ain Shams and Beni-Suef hospitals, respectively, were in the age group (30 years and more). Their mean age was (30.96 ± 5.69) years and (28.34 ± 5.28), respectively. More than half of the nurses (66.7% and 57.2%) of both hospitals had a secondary educational level. Regarding their years of experience (19.0%) and (23.8%) of nurses in both groups had (1-5 years) of experience. Moreover, the attendance of studied nurses of educational training related to placental examination during their work years (95%) of the studied nurses from Ain shams hospital and (66.6%) of the studied nurses from BeniSuef Hospital did not attend any training related to the placental examination [4].

As illustrated in Figure (1&2), our study results presented nurse-midwives' knowledge before and after receiving a structured teaching program about placenta examinations. These results align with Indian study, in Pune city which illustrates that the studied nurses need to gain knowledge regarding the placenta examination. Approximately (60%) of them cannot define the placental barrier or the placental general characteristics (47.6%), and (45.2%) of them cannot mention the recent benefits or uses of it. Additionally, (26.2%) of them could not determine the site of placental implantation. A similar percentage (35.7%) could not determine the time of placental formation and its functions [5].

Moreover, other studies pointed out that nurses should collaborate with other health professionals to determine the effectiveness of therapy. They should also have the basic knowledge and skills to offer care safely and be trained accurately in practical and technical procedures to use this knowledge effectively [6, 7].

Additionally, these results agree with study results in Egypt that the studied nurses need to gain knowledge regarding the placenta in the pre-test. Approximately 60% of them cannot define the placental barrier or the placental general characteristics (47.6%), and 45.2% of them cannot mention its recent benefits or uses. Additionally, 26.2% of them could not determine the site of placental implantation. A similar percentage, 35.7%, could not determine the time of placental formation and its functions [4].

In Table (2), the results show nurse midwives' responses about placental examination practices, which indicate that in the pre-test, most of them have inadequate practice about the placental examination and account for 37 (74%), and just 13(26%) have a moderate level of practices toward placenta examination. While in the post-test, all have moderate practice toward placenta examination. So, we extract that although a large body of literature addresses placental examination guidelines, the current study's findings reflect severe malpractice among the study nurses regarding this important procedure. Most did not perform it, and the others did not correctly or completely. These results are in line with Australian study, which showed that less than (20%) of placentas were examined, while up to (50%) would have met the Guidelines of the College of American Pathologists for placenta examination [8].

In addition, another study mentioned that, in the survey, the authors found that the hospital staff examined only one-third of the placentas recommended using the American Pathologists College practice guidelines. This may be explained by the assumption held by most participants that their years of experience (10-15 years) qualified them to judge completeness and normality by only a cursory look at the placenta [9].

Moreover, many researchers illustrated that as nurses comprise the greatest group of healthcare providers and are the ones responsible for the quality of care provided to the patients, their perspectives on the effectiveness of their care are very important, they should possess a wide variety of holistic skills, and there is evidence of nursing interventions [10, 11].

Additionally, as nursing care is the main critical component of therapy in the labor unit, poor nurses' manipulation of the third stage of labor will interfere with their ability to achieve positive pregnancy care outcomes. So, the nurse should ensure that the woman is comfortable following the birth, monitor the blood loss, and check that the uterus is well contracted. The examination of the placenta and membranes should take place as soon as possible following this to ensure that no further actions are required before the woman is discharged or transferred to the ward [12, 4].

CONCLUSIONS:

The nurse midwives have a moderate level of knowledge, and practice after receiving structured teaching program about placental examination.

RECOMMENDATIONS:

The study recommended that nurse midwives update their knowledge through training and attend courses related to principal practice regarding placental examination, which also aids in improving their skills and performance.

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TABLES & FIGURES:

Table (1): Distribution of the Socio-demographic Characteristics for (50) Nurse Midwives

Variables	Groups	(N=50)	
		Freq.	%
Age Groups (Per Years)	20 _ 24	3	6%
	25 _ 29	13	26%
	30 _ 34	**14**	**28%**
	35-39	5	10%
	40 -44	7	14%
	45 & more	8	16%
	Total	**50**	**100%**
Educational level	**Nursing Preparatory**	**24**	**48%**
	Institute of Higher Health Professions	5	10%
	Medical Institute	19	38%
	Nursing college	2	4%

	Postgraduate	0	0.00%
	Total	**50**	**100%**
Experience's years (in general specialty)	One year	2	4%
	2-5	13	26%
	6-10	**24**	**48%**
	11-15	10	20%
	16 year & more	1	2%
	Total	**50**	**100%**
Experience's years (in specific specialty)	One year	3	6%
	2-5	19	28%
	6-10	**23**	**46%**
	11-15	4	8%
	16 year & more	1	2%
	Total	**50**	**100%**
Attendance courses	Yes	0	0.00%
	No	**50**	**100 %**
	Total	**50**	**100%**

Freq.=Frequency.

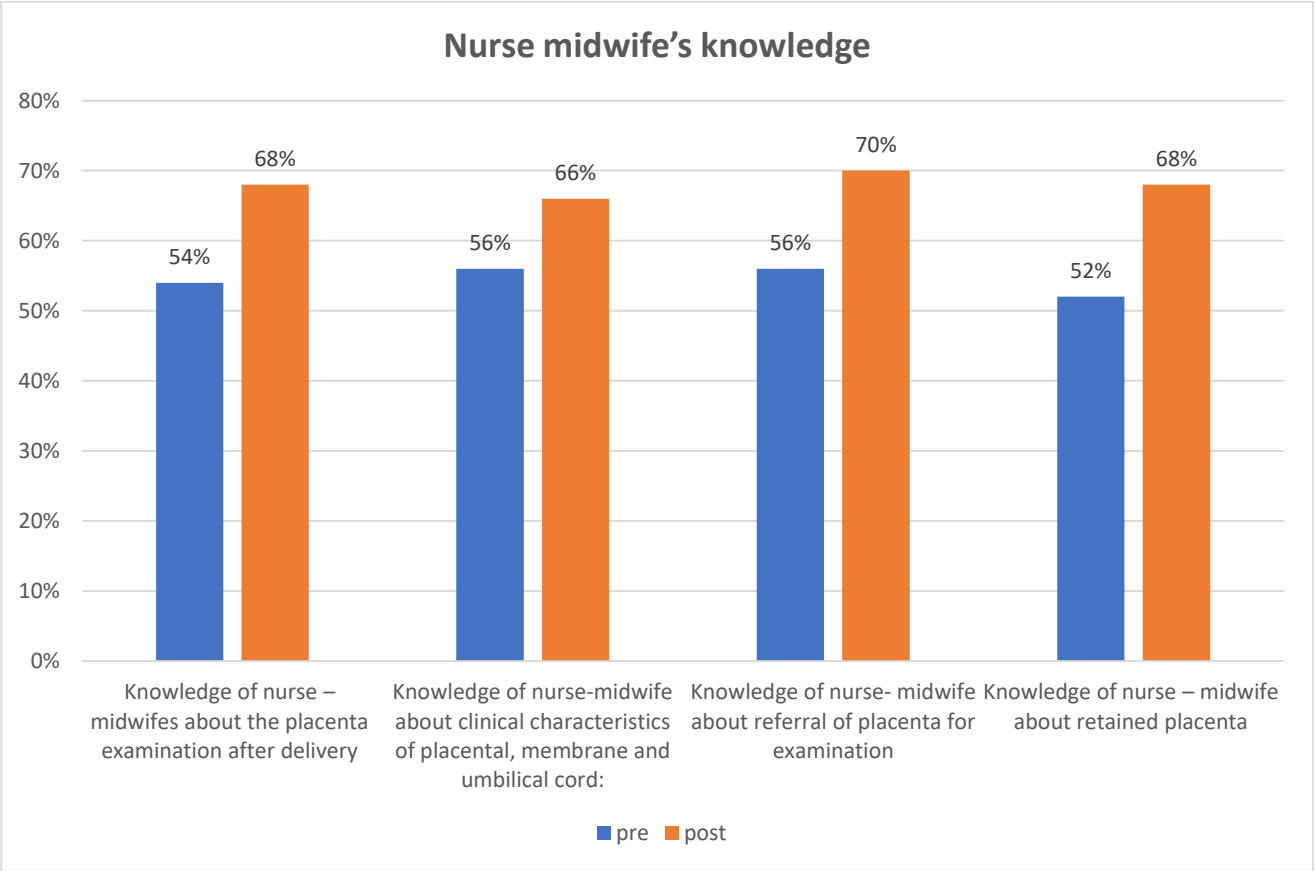

Figure (1): Nurse midwife's knowledge about placental examination (Pre-posttest)

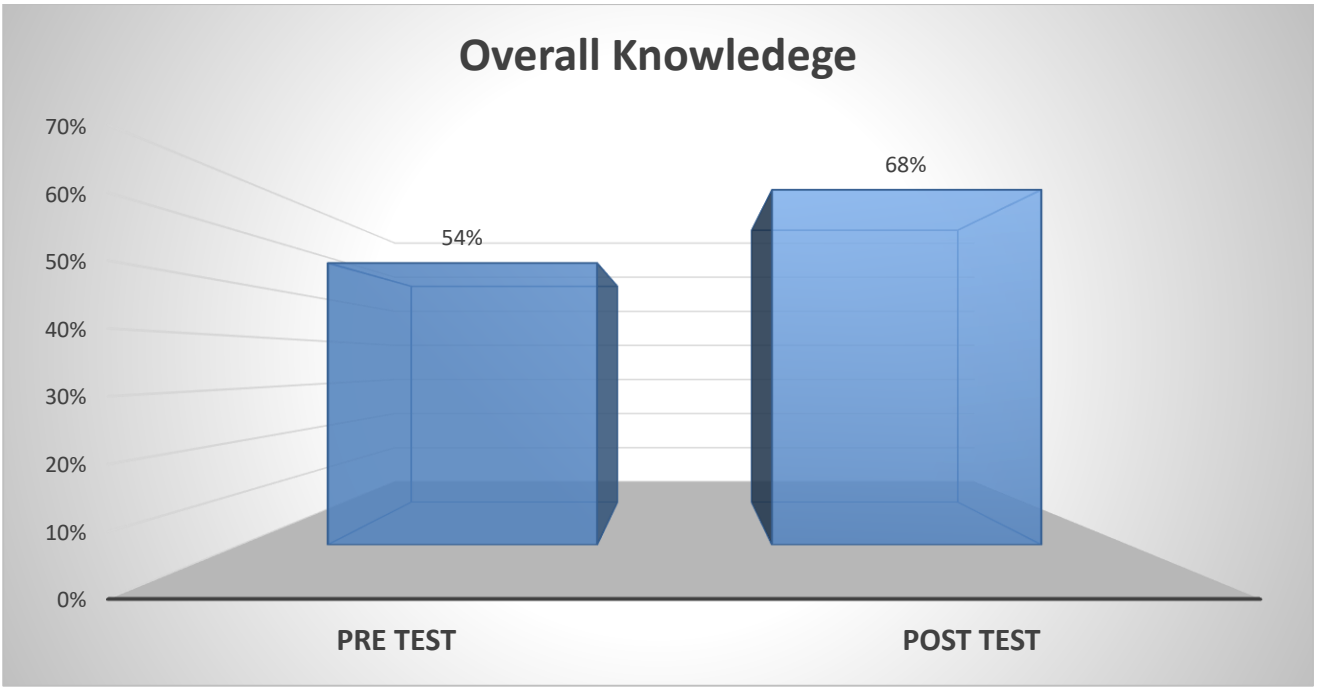

Figure (2): Overall knowledge of Nurse midwifes about placental examination (Pre-posttest)

Table (2): Nurse midwife's responses about placental examination practices Pre-post test

Nurse midwife 's practices about placental examination	low		Moderately		High		Total	
	F.	Percent	F.	Percent	F.	Percent	F.	Percent
Pre test	00.0%	00.0%	13	26%	37	74%	50	100
Post test	00.0%	00.0%	50	100%	00.0%	00.0%	50	100