

Nurse Midwives Knowledge Regarding Nursing Management of Post-Partum Hemorrhage at in Iraq

Hanan Noor Mohammad

¹Assist. Lecturer, College of Nursing, University of Altoosi, Najaf City, Iraq

Abstract

Aims: Today, it is well-known that postpartum hemorrhage (PPH) is the leading cause of maternal postpartum deaths worldwide; so that this study aims to assess nurses and midwives knowledge .

Method: A descriptive cross-sectional study design was conducted from to meet the previously mentioned objectives . All nurse midwives (n=150) were included who works at the hospital of AL-Najaf AL-Ashraf Province .A constructed questionnaire was prepared and adopted by the researcher to meet the objectives of the study .

Results: The result of the study revealed that the mean overall knowledge score of the study participants for all domains was (1.91) which indicated that the overall knowledge of nurse-midwives in Al- Najaf AL-Ashraf city in Iraq hospitals regarding nursing care of PPH was (fair) .the overall knowledge score about prevention of PPH was (1.87) which is also considered (fair) . The result of the current study also revealed that there is a significant positive correlation had been found between age, duration of experience in delivery room, training courses or workshops

Conclusion: It was concluded that the nurse-midwives have a moderate level of knowledge about the overall concepts, information and skills related to the PPH . They have weak knowledge about definition, types and common causes of postpartum hemorrhage .

Keywords: Nurse-midwives, knowledge, postpartum hemorrhage, management.

Introduction

Postpartum hemorrhage [PPH] is being designated as the most substantial yet inevitable source of death and maternal illness all over the world [1]. Being the utmost prevailing 5th maternal mortality cause, PPH instigate 140,000 demises each year worldwide [2]. Rendering the WHO, the distinct PPH definition is being stated by way of 500ml minimum blood loss after childbirth within 24 hours. However, the severe PPH is termed as 1000ml least blood loss in 24 hours of birth [3]. Another definition is that PPH the sufficient loss of blood causing hypovolemia, a [10%] decrease in the hematocrit or a situation necessitating the transfusion of blood products irrespective of the delivery route [1]. PPH has been categorized into two types: primary and secondary PPH [1]. Primary [immediate] PPH is typified by a blood loss of more than 500ml owing to vaginal delivery and blood loss of 1500 ml owing

to caesarean section within first 24 hrs of delivery [2]. Practically uterine atony is considered to be the root of 70% of immediate PPH . Inadequate contraction of the uterus after a child is born referred to as atony of the uterus. The prevalence of immediate PPH is [5%] of all deliveries[4]. An approximated 14 million cases of PPH are registered every year globally with a [1%] case-fatality rate [5]. According to an assessment, about 2% of the women childbirths are associated to PPH. Although, another approximation indicates the ratio of 25% global maternal deaths while marking the PPH as a widely held prime reason of demise in low wages countries. Economically well developed countries has overall less decease risk than the developing nations. In the high-income countries, the total death risk is approximated to be 1:100,000 deliveries as compared to 1:1000 in low-income countries.[3] According to Rath [2011], a recent WHO analysis showed that in high-income countries,

hemorrhage as a result of PPH accounts for [13.4%] of maternal mortality,[30.8%] for Asia, and 34% for Africa^[5]. With a broad difference globally, the incidence of minor PPH and severe PPH is estimated to be [6%] and [1.86%] of all deliveries^[4,5]. Morbidity resulting from severe PPH is approximated at 4.5-6.7/1000 deliveries with nearly 20 million women globally every year suffering from an acute or chronic disability due to PPH ^[6-8].

Methodology

2.1 Study aims: The purpose of the current study was to investigate the nurse midwives knowledge regarding nursing care of PPH . The current study also aims to find out the relationship between nurse midwives knowledge regarding nursing care of post- partum hemorrhage with their socio demo-graphic and personal characteristics such as (age, marital status, economic status, educational level, ect.....) .

2.2 Design of the study: A descriptive cross-sectional study design was conducted from 30/July/2019 to 29/April/2020 to meet the previously mentioned objectives

2.3 Study Sample: All nurse midwives (n=150) were included who works at the hospital of AL-Najaf AL-Ashraf city in Iraq

2.4 Study instrument: A constructed questionnaire was prepared and modified after a thorough review of the relevant literature. This questionnaire covers two parts:

2.4.1 Part 1: Socio- demographic and personal characteristics: This part included the following (age, level of education, duration of experience in delivery room, receiving training courses or workshop about postpartum hemorrhage, accommodation, type of accommodation, marital status, economic status, others) which included (8) items.

2.4.2 Part 2: Knowledge of nurse midwives about prevention of postpartum hemorrhage which included (18)items.

2.5 Validity and Reliability: The content validity of the instrument was established through a panel of (12) experts, the reliability of the items was based on the internal consistency of the checklist was assessed by calculating Cronbach Alpha which was= 0.765

2.6. Data Collection and Data Analysis: A structured questionnaire used to collect data by direct interview. The approximate interview time of 25-30 minutes was provided for the questionnaire completion. To determine whether the objectives of the study were met, the current study data were analyzed by using SPSS, version 25.

Results and Discussion

Table 1., illustrates the demographic characteristics of the 150 nurse-midwives who participated in this study. Age distribution of the participants revealed that the highest percentage is 67 (44.7%) aged 20 – 29 years . Concerning the level of education, highest percentage is 111/150 (74%) nurse-midwives had secondary school of nurse-midwifery level . Regarding accommodation, findings also revealed that 88 nurse-midwives (58.7%) were living close to the health institution, and 62 (41.3%) were living far from the health institution. For, the type of accommodation, owned documented by 79 (52.7%) nurse-midwives and rented by 71 (47.3%). The enough economic status reported by 20 nurse-midwives (13.3%) enough to some limits in 58 (38.7%) and not enough in 72 nurse-midwives (48%). Out of the 150 nurse-midwives, 119 (79.3%) were married, 24 (16%) were single and 7 nurse-midwives (4.7%) were widowed, divorced or separated.

According to the results of the current study, the research outcomes specified age distribution of the respondents while revealing that the highest age group is between (20 – 29) years which made up (44.7%), secondary was age category (30-39) years which constituted (22%) . These data may vary from that gotten by (40) who observed that the highest age group is (47-55) years (32.5%), followed by (20-28) years (24.7%). The results of the present study indicate the target sample; it also indicated that young nurses midwives made up the majority among the other groups .

Regarding the educational level, the majority of the study group (74%) are graduated in secondary school of midwifery, this may be due to secondary school of midwifery are the major levels that qualify health care workers in the range of midwifery, principally in Iraq . One previous study achieved in the city of Maraco found that the majority midwives (35.1%) that were included in the current study graduated from secondary schools ⁽⁹⁾. In relation to residence, results also explained that 88.0 nurse-midwives (58.7%) are living near the health

institutions, and 62 (41.3%) are living away from the health institutions .

Concerning the socio-economic status, most of the research respondents (48%) have not sufficient monthly income. This result can be supported by other results

about the accommodation which recorded that (47%) of the midwives have rent accommodation ⁽¹²⁾ .

Regarding to marital status, most of the study sample (79.3%) are married, while (16%) are single and (4.7%) are widowed, divorced or separated as shown in (Table 1).

Table 1. Demographic Characteristics of the Studied Group

Variable	Category	(N = 150)	%
Age (year)	Less than 20	18	12.0
	20 - 29	67	44.7
	30 - 39	33	22.0
	40 - 49	23	15.3
	50 and above	9	6.0
Level of Education	Nursing school	12	8.0
	Secondary school of midwifery	111	74.0
	Secondary school of Nursing	17	11.3
	Institute of nursing	8	5.4
	Institute of midwifery	2	1.3
	College of nursing	0	0.0
Accommodation	Close to the health institution	88	58.7
	Far from the health institution	62	41.3
Type of Accommodation	Owned	79	52.7
	Rented	71	47.3
Economic Status	Enough	20	13.3
	Enough to some limits	58	38.7
	Not enough	72	48.0

According to the table 2, the distribution of duration of experience in delivery room together with history of training about postpartum hemorrhage was illustrated, where 20 participants (13.3%) had a duration of experience in delivery room for less than one year, 73 (48.7%) had a duration of one to ten years, 31 (20.7%) for 11 – 20 years, 18 (12%) for 21-30 years and 8 nurse-midwives (5.4%) had a duration of experience in delivery room of more than 30 years. Regarding the training about postpartum hemorrhage, 109 nurse-midwives (40%) had received training courses, 90 (33.1%) had participated in workshops and 73 (26.8%) nurse-midwives received other types of training.

Table 3., demonstrated the responses of nurse-midwives about management of PPH; it points that 43.0 respondents (28.7%) had the correct response concerning the assessment of blood loss directly by kidney dish, 72.0 (48%) of respondents have incorrect response and 35.0 (23.3%) they don't know. The MS was 1.81 and it was a moderate knowledge.

Pads count and weight were correctly identified to be included in the management and assessment of PPH by 65.0 of respondents (43.3%), 44.0 (29.3%) of respondents were incorrect and 41.0 (27.3%) of them did not know. This gave a mean score of 2.14 which is moderate knowledge.

Regarding the responses about recording the vital signs, correct responses reported by 69.0 respondents (46%), incorrect answers by 46.0 (30.7%) and 35.0 (23.3%) did not know with a mean score of 2.15 and it was moderate knowledge. About 36.0 (42%) respondents correctly answered and forty six (30.7%) incorrectly responded about measurement of pulse and other vital signs every 15 minutes up to stability but 41.0 (27.3%) of respondents do not know. The mean score was 2.11 and it was moderate knowledge. Correct response regarding management of call for help observed by 74.0 respondents (49.3%), incorrect answers were reported by

34.0 (22.7%) and 42.0 (28%) respondents do not know. This gave a mean knowledge score of 2.27 and moderate knowledge. Some other data about this domain are different; Elfaki (2015) observed that nurses-midwives knowledge about method of assessment of blood loss are (26%), (66.2) and (28.6%) respectively for (pads count and weight), (assess of blood loss directly by kidney dish) and (observe vital signs)⁽⁹⁾; while Faiza (2015) found the following correct responses : (77.6%), (53.1%) and (65.5%) respectively for pads count and weight), (assess of blood loss directly by kidney dish) and (observe vital signs)⁽¹⁰⁾.

Table 2. Distribution of Duration of Experience in Delivery Training about Postpartum Hemorrhage

Variable	Category	No.	%
Duration of Experience in Delivery Room	<1 year	20	13.3
	1 - 10	73	48.7
	11 - 20	31	20.7
	21 - 30	18	12.0
	> 30	8	5.3
	Total	150	100.0
Receiving Training about Postpartum Hemorrhage	Training course	109	40.1
	Workshop	90	33.1
	Other training	73	26.8
	Total	272*	100.0

*Nurse-Midwives Mentioned more than One Choice

Concerning management, good knowledge was gotten by Faiza (2015) for all the questions of the management of PPH . Mohammed et al. (2016) conducted a study in Nigeria showed that about 67.1% of the nurses and midwives have correct answers

about using massage as initial step to manage PPH⁽¹⁰⁾; Onasoga et al. (2012) achieved another study in Nigeria observed that 95% of midwives had correctly answered the question about using uterine massage after labor to prevent the development of PPH ⁽¹¹⁾.

Table 3. Knowledge of Nurse- Midwives about Management of PPH (N =150)

No.	Items	Correct		Incorrect		Don't know		MS	Assessment.
		Freq.	Percent.	Freq.	Percent.	Freq.	Percent.		
1	Assess of Blood loss Directly by Kidney Dish	43	28.7%	72	48.0%	35	23.3%	1.81	Moderate
2	Pads Countand Weight	65	43.3%	44	29.3%	41	27.3%	2.14	Moderate
3	Observe Vital Signs	69	46.0%	46	30.7%	35	23.3%	2.15	Moderate
4	Measure the Pulse and other Vital Signs every 15 minutes up to Stability	63	42.0%	46	30.7%	41	27.3%	2.11	Moderate
5	Management of Call for Help	74	49.3%	34	22.7%	42	28.0%	2.27	Moderate

No.	Items	Correct		Incorrect		Don't know		MS	Assessment.
		Freq.	Percent.	Freq.	Percent.	Freq.	Percent.		
6	Try to Control the Bleeding by Massage	61	40.7%	37	24.7%	52	34.7%	2.16	Moderate
7	Giving I.V Fluid	84	56.0%	17	11.3%	49	32.7%	2.45	Good
8	Follow up Continue even Bleeding has Stopped	50	33.3%	41	27.3%	59	39.3%	2.06	Moderate
9	Observed Amount of Blood	77	51.3%	9	6.0%	64	42.7%	2.45	Good
10	Mother Should remain in the labor Room until Become Stable	86	57.3%	11	7.3%	53	35.3%	2.50	Good
11	Overall Knowledge Score							2.21	Moderate

Table 4, shows Spearman's bivariate correlation analysis. A significant direct (positive) correlation had been found between age of participants and their overall knowledge score ($R = 0.412$, p value = 0.004). Other significant direct (positive) correlation was found with duration of experience in delivery room ($R = 0.575$, P value = 0.001). Moreover, a significant direct (positive) correlation was found with receiving training courses or workshops ($R = 0.243$, P value = 0.043). No significant association had been found between overall knowledge scores and other variables including level of education, accommodation, type of accommodation and economic status, (in all of these variables correlation was not significant, P value = .05).

Age concerns designated a great substantial positive correlation ($p = .004$) amid age & overall knowledge. It means that knowledge and awareness increases with age, this result is in agreement with Jaber and Abbas (2012) who found a significant association ($p = 0.02$) between midwives' age and their knowledge^[14]. This may be due to increased practice and experience by increasing age resulting in accumulation of information so that the same table (4.17) shows a high significant positive correlation ($p = 0.001$) between overall knowledge and duration of experience in delivery room; this result agrees with that obtained by Bulndi et al. (2017) who observed that high levels of knowledge about PPH is found in midwives with years of experience more than 15 years^[13].

Unexpectedly, this results did not reveal any significant relationship ($p = 0.495$) between overall knowledge of nurse-midwives and their level of education, this result agrees with the result obtained by Onasoga et al.^[11]. However, disagrees with the study conducted by Jaber and Abbas (2012) who pointed a significant relationship with educational status^[14]; another study found that doctors have better scores than midwives^[15]. The unexpected result in the present study may be explained by what is mentioned in this chapter that most of the study sample (74%) are graduated from secondary school of midwifery, so that there is no great difference in the level of education of respondents participated in this study.

Concerning training, the current study found a significant correlation ($p = 0.043$) between overall knowledge of nurse-midwives and receiving training courses or workshops, this result agrees with the work obtained by Benedict et al. who found that midwives who completed the training courses named "Essential Steps in the Management of Obstetric Emergencies" ESMOE had better knowledge and performance^[15]. However, another study conducted in Baghdad did not find a significant correspondence of about $p > 0.05$ amongst the training and inclusive understanding of nurse midwives^[14].

Table 4. Results of Bivariate Spearman's Correlation Analysis for the Correlation between Overall Knowledge of Nurse-Midwives and Demographic Variables

Socio-Demographic Characteristics	Overall mean knowledge score	
	Spearman's correlation coefficient	P. value
Age (year)	0.412	0.004
Level of Education	0.056	0.495
Accommodation	0.044	0.595
Type of Accommodation	0.028	0.738
Economic Status	0.145	0.076
Marital Status	0.154	0.060
Duration of Experience in Delivery Room	0.575	0.001
Receiving Training Courses or Workshops	0.234	0.043

Conclusion

According to the current study, the nurse-midwives have a moderate level of knowledge about the overall information and skills related to the management of PPH. In general, the knowledge of nurse-midwives about PPH increases with age and years of experience.

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Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the College of Nursing and all experiments were carried out in accordance with approved guidelines.

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