

Assessment of licensed indigenous midwives' knowledge concerning prevention and management of postpartum hemorrhage in Baghdad city

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المستخلص

الهدف: تهدف الدراسة إلى تقييم معارف القابلات الأهليات المجازات حول منع وتدبير النزف بعد الولادة في مدينة بغداد.

المنهجية: دراسة وصفية تحليلية، تم اختيار عينة غير احتمالية (عمدية) لمائة قابلة أهلية والتي تمثلت (26%) من المجتمع المستهدف للدراسة خلال المدة من 5 آذار ولغاية 10 أيار، 2008. تم إجراء الدراسة في وزارة الصحة (دائرة صحة بغداد الكرخ والرصافة) خلال تجديد الإجازة السنوية لممارسة القبالة. تكونت الإستمارة الاستبائية من (3) أجزاء تشمل الخصائص الديموغرافية ومعارف القابلات الأهليات المجازات في منع وتدبير النزف الأولي بعد الولادة، وتم تحديد صدق المحتوى وثبات الاستمارة الاستبائية من خلال دراسة إستطلاعية وإستعمال التحليل الإحصاء الوصفي والإستنتاجي في تحليل البيانات.

النتائج: تشير نتائج الدراسة إن أعلى نسبة (40%) من أفراد عينة الدراسة تتراوح أعمارهم بين (50-59 سنة) وأكثر من نصف عينة الدراسة هُنَّ من خريجات الدراسة الإبتدائية وأقل، وإن أكثر من نصف عينة الدراسة تعرّضن لحالات من النزف الأولي أثناء ممارستهن التوليد وأنَّ هناك علاقة ذات دلالة إحصائية بين معارف القابلات الأهليات المجازات في منع (تدبير) النزف الأولي بعد الولادة وعمرهن ومستواهن التعليمي.

التوصيات: توصي الدراسة بتزويد القابلة الأهلية المجازة بالمعلومات عن ممارسات الولادة الآمنة وأهمية نظام الإحالة الصحيّ والزام القابلة الأهلية المجازة في تطبيق تعليمات وزارة الصحة بعدم السماح لها في توليد حالات الحمل المعرّضة للخطورة وإنشاء فرع للقبالة في معاهد الطبي التقني ودبلوم عالي في القبالة لخريجات كلية التمريض

Objective(s): The aim of this study is to assess licensed indigenous midwives' knowledge concerning prevention and management of postpartum hemorrhage in Baghdad City.

Methodology: A descriptive analytic study is conducted on a purposive "non-probability" sample of one hundred licensed indigenous midwives who were selected what represents 26% of the target population, during period from March, 5th to May, 10th, 2008. The study is conducted at the two settings of Ministry of Health (Baghdad health directorate in Al-Karhk and Al-Risafa) sector during their annual renewed license for midwifery practice. The questionnaire form is consisted of three parts which included demographic data, knowledge concerning prevention and management of primary postpartum hemorrhage. Content validity and reliability of the questionnaire is determined through a pilot study, descriptive and inferential statistical are used to analyze the data.

Results: The study results showed that the highest percentage (40%) of study sample is of the age group (50-59 years) and more than half of the study sample is primary school graduate and less. More than the half of the study sample is assigned to primary postpartum hemorrhage during their practices in midwifery. There were statistically significant relationships between knowledge of licensed Indigenous Midwives regarding prevention and management of primary postpartum hemorrhage and their ages and level of education.

Recommendations: The study recommends that licensed indigenous midwife should be provided with information on safe delivery practices and the importance of healthy referral system. Committing licensed indigenous midwife to apply Ministry of Health instructions, do not allowing delivering risky pregnant cases. Establish midwifery department for medical technical institutes and higher diploma degree in midwifery for college nurse graduates

Keywords: Indigenous Midwives, prevention, management and postpartum haemorrhage

Introduction:

At least seven million women who survive childbirth suffer serious health problems and a further 50 million women suffer adverse health consequences after childbirth. The overwhelming majority of these deaths and complications occur in developing countries due to the lack of access to life-saving care⁽¹⁾. The risk of maternal mortality due to postpartum hemorrhage is high due to limited access to skilled medical or midwifery care, transportation, emergency services, and delays in obtaining skilled care. Early postpartum hemorrhage often can be managed with basic essential obstetric care but delay can lead to further complications requiring comprehensive emergency obstetric services⁽²⁾. It is important to note that postpartum hemorrhage is a technical term which is used in different ways, so it means that woman loss of blood greater than 500 ml after delivery that causes a major physiological change which threatens the woman's life⁽³⁾. Postpartum hemorrhage could be prevented or managed if the women had access to a skilled attendant with necessary back-up and support⁽³⁻⁴⁾. More than half a million women around the world die each year as result of pregnancy and childbirth, and million women more become ill or are left disabled⁽⁵⁻⁶⁾. About 24% of maternal deaths occur during pregnancy, 16% during labor and births and 61% occur during the postpartum period, 45% of death occurs within the first 24 hours of birth mostly as a result of postpartum hemorrhage⁽⁷⁾. So, the recent literature focus on training midwives on active management of third stage of labor to decrease the rate of primary postpartum hemorrhage⁽⁵⁾. The objectives of present study were to assess the knowledge of licensed indigenous midwives concerning prevention and management of primary postpartum hemorrhage and to find out the relationships between licensed indigenous midwives' knowledge regarding prevention and management of primary postpartum hemorrhage and certain variables such as age, educational level, marital status, years of experience, training

course, number of delivery attended in a year and number of assigned postpartum hemorrhage.

Methodology

A descriptive analytic study is carried out to assess licensed indigenous midwives' knowledge concerning prevention and management of postpartum hemorrhage through using the assessment approach for the period of 5th March to 10th May 2008. A purposive "non-probability" sample consisted of (100) licensed indigenous midwife during annual renewed license for midwifery practice and perform only domiciliary birth not working in health agency, which represent (26%) of the target population in Al-Karkh and Al-Russafa sector; (35) licensed indigenous midwife which represent (9.2%) of the target population from Baghdad health directorate, Al-Karkh region, and (65) of licensed indigenous midwife which represents (16.8%) of the target population from Baghdad health directorate, Al-Russafa region. The questionnaire form is consisted of three parts which included licensed indigenous midwives demographic data, (91) item related to knowledge concerning prevention of primary postpartum hemorrhage and (28) item knowledge regarding management primary postpartum hemorrhage.

These items are rated in two-level dichotomous responses of know and don't know and scored as two for (Yes) and one for (No). There were some items which had negative answer and scored as one for (Yes) and two for (No). Rating score for knowledge regarding prevention = No of items x cut-off-point $91 \times 1.5=136.5$. It is divided according to Dichotomous level of ≥ 136 to <136 . Rating score for knowledge regarding management = No of items x cut-off-point $28 \times 1.5=42$. It is divided according to dichotomous level of ≥ 42 to <42 . Relative sufficient was calculated according to following formula: cut-off-point / number of scoring * 100. So, the categorizing as follow: ≥ 75 is Low, 75.1–87.5 as moderate and 87.6– and more as high. A pilot study was carried which included fifteen licensed indigenous midwives obtained from nursing department/Baghdad health directorate in al-Russia during the period from 23th to 30th February, 2008.

To evaluate the validity of the questionnaire form, the researchers presented it to eighteen experts in various fields. Reliability of the questionnaire was obtained through split half technique by using Pearson's correlation coefficient and Reliability coefficient for the knowledge of licensed indigenous midwives regarding prevention of primary postpartum

hemorrhage, $R = 0.905$ and for management of primary postpartum hemorrhage, $R=0.887$ which are statistically acceptable. The statistical procedures include: Descriptive statistic (frequency, mean, percentage, relative sufficient and graph) and inferential statistic (chi-square) approach have been used.

Results

Table 1. Distribution of demographic characteristics of the study sample (N=100)

Variables	Frequency	Percent
Age group (Years)		
20-29	2	2
30-39	14	14
40-49	37	37
50-59	40	40
60-69	7	7
Total	100	100
X=47 ± 7.6		
Level of education	Frequency	Percent
Illiterate	9	9
Read and write	27	27
Primary school graduate	35	35
Intermediate school graduate	18	18
Secondary school graduate	9	9
Institution and university graduate	2	2
Total	100	100
Marital Status	Frequency	Percent
Married	73	73
Single	5	5
Widow	19	19
Divorce	3	3
Total	100	100

Table (1) shows that the highest percentage (40%) of study sample were at age group (50-59 years) and the mean of age and standard deviation SD for them were 47 ± 7.6 years, while the lowest percentage (2%) their ages ranged from (20-29) years, (35%) of study

sample were primary school graduates, while the lowest percentage (2%) were graduates of university (not nursing field) and the highest percentage (73%) of the study sample was married.

Table 2. Distribution of participants according to the years of experiences in midwifery (n=100)

Years of experience in midwifery	Frequency	Percent
1-10	25	25
11-20	53	53
21-30	21	21
31-40	1	1
Total	100	100

This table shows that (53%) of study sample have experiences in midwifery between (11-20) years, only (1%) of them have (31-40) years of experience.

Table 3. Distribution of participants according to site for conducting delivery (n=100)

Variables	Frequency	Percent
Area of conducting delivery		
Same area of midwives house	96	96
Outside area of midwives house	4	4
Total	100	100
Site of conducting the delivery		
Midwives' house	44	44
Mother's house	37	37
Both of them	19	19
Total	100	100

Table 3. (Continued)

Distance of health agency in case of referral	Frequency	Percent
Close to midwives' house	61	61
Far to midwives' house	22	22
Close to mother's house	17	17
Total	100	100

Table (3) shows the highest percentage (61%) of study sample attended deliveries at the same area of midwives' house within their boundaries. The same table shows that (22%) of them conducted the deliveries at their houses while 37% of them conducted delivery at mother's house.

The highest percentage (61%) of study sample, the health agency was close to their houses which helps them in early referral the complicated cases.

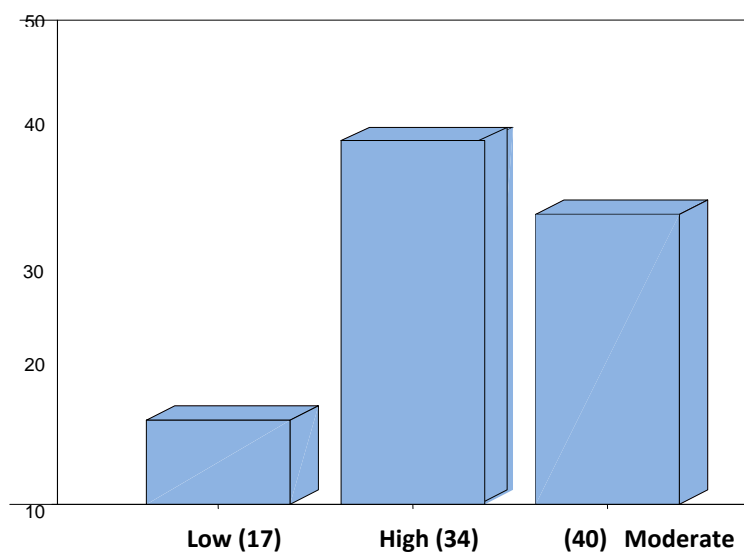


Figure 1. Assessment of midwives' knowledge regarding prevention of primary postpartum hemorrhage by relative sufficiency

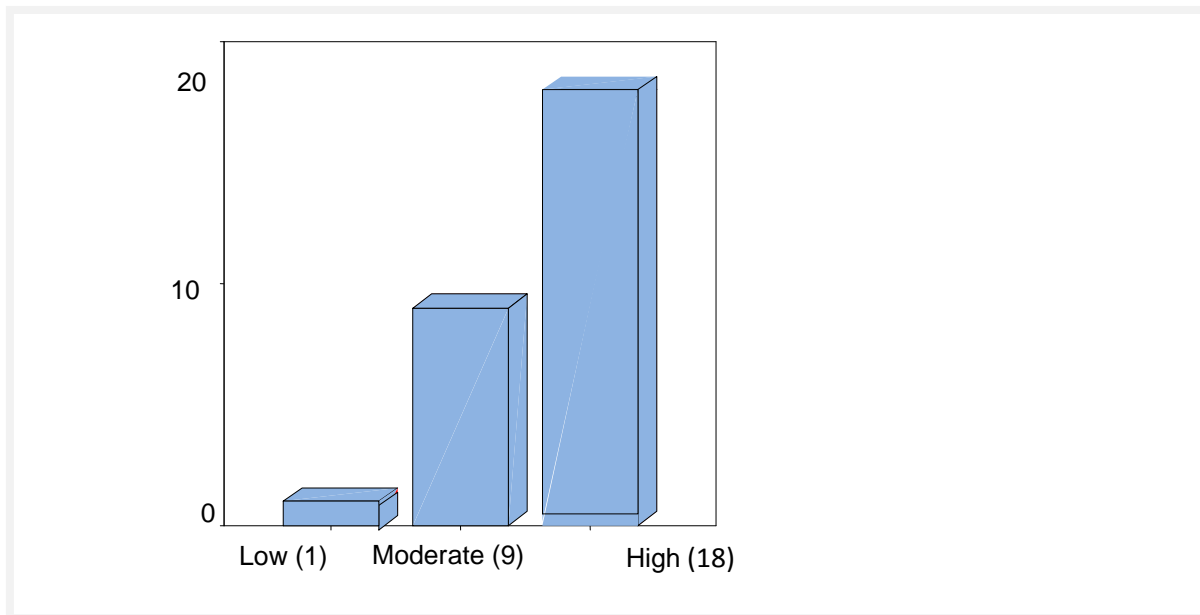


Figure 2. Assessment of midwives' knowledge regarding management of Primary Postpartum Hemorrhage by relative sufficiency

Never assigned case of postpartum hemorrhage 47%

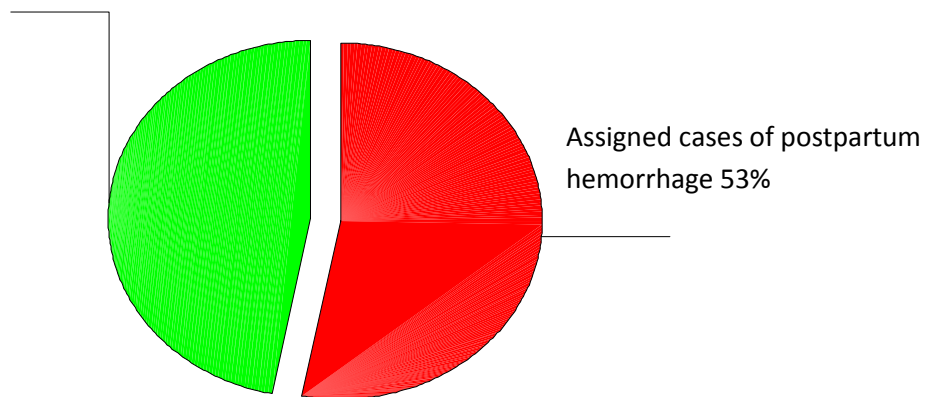


Figure 3. Number of assigned primary postpartum hemorrhage during their practices in midwifery

Table 4. Association between licensed indigenous midwives' knowledge regarding prevention and management of primary postpartum hemorrhage and study variables

Variables	Knowledge			χ^2	df	p-value	Management			χ^2	df	p-value	Significance ≤ 0.05
	<136.5	≥ 136.5	Total				< 42	≥ 42	Total				
Age													
20-39	1	15	16	8.014	2	.018	3	13	16	7.853	2	0.020	S
4-49	4	33	37				10	27	37				
50-59	15	32	42				24	23	47				
Total	20	80	100				21	79	100				
Level of Education													
Illiterate and Read and Write	20	16	36	9.945	2	.007	21	15	36	9.945	2	.007	S
Primary School Graduate	10	25	35				9	26	35				
Intermediate School Graduate and Above	4	25	29				2	27	29				
Total	34	66	100				18	82	100				
Marital Status													
Married	11	62	73	6.785	3	.079	5	68	73	1.947	3	.584	NS
Single	1	4	5				-	5	5				
Widowed	6	13	19				-	19	19				
Divorced	2	1	3				-	3	3				
Total	20	80	100				5	95	100				

Table 4. (Continued)

Variables	Prevention			χ^2	df	p-value	Management			χ^2	df	p-value	Significance ≤ 0.05
	<136.5	≥ 136.5	Total				< 42	≥ 42	Total				
Years of Experience													
1-10	5	20	25	1.486	2	.476	1	24	25	.111	2	.946	NS
11-20	10	33	53				3	50	53				
21 and More	6	16	22				1	21	22				
Total	21	79	100			5	95	100					
Training Courses													
1-10	4	24	28	.794	1		.578	1	27	.167	1	.568	NS
11-20	16	56	72					4	68				
Total	20	80	100					5	95	100			
Location of Delivery													
Midwives House	10	34	44	459	2	.760	3	41	44	3.475	2	.176	NS
Mother's House	6	31	37				-	37	37				
Both of Them	4	13	19				2	17	19				
Total	20	80	100				5	95	100				
Number of birth attendants during 2007													
10-49	12	35	47	1.969	1	.146	11	36	47	1.755	1	.144	NS
50 and More	8	45	53				7	46	53				
Total	20	80	100				18	80	100				

Table 4. (Continued)

Variables	Knowledge			χ^2	df	p-value	Management			χ^2	df	p-value	Significance ≤ 0.05
	<136.5	≥ 136.5	Total				< 42	≥ 42	Total				
number of Assigned PPH													
Never assigned cases of PPH	7	40	47	1.445	1	.171	14	33	25	1.979	1	.115	NS
Assigned cases of PPH	13	40	53				23	30	53				
Total	20	80	100				37	63	100				

df= degree of freedom; NS=Non-significant; PPH= Postpartum Hemorrhage; P-value= Level of probability at p=0.05; S= Significant; χ^2 =Chi-square

Table (4.) shows that there is a considered statistical significance relationship between knowledge of licensed indigenous midwives regarding prevention and management of primary postpartum hemorrhage and their ages and levels of education, while their marital status, years of experience, training courses, location of delivery, number of birth attended and number of assigned primary postpartum haemorrhage shows no significant association.

Discussion

The results revealed that the highest percentage of the study sample (40%) were at age group was ranged from (50-59 years), with mean age and standard deviation were 47 ± 7.6 years, as shown in table (1). This data is in line with study reported by WHO that the age of midwives will take a minimum of 25 years, in some places 50 or 60 years, to have skilled care at all birth⁽⁶⁾. The instruction of Ministry of Health (MOH) in Iraq reported that the age of Temporary licensed Indigenous Midwives was ranged between (25-60) years⁽⁷⁾. The highest percentage (35%) of study sample graduated from primary school as shown in table (1). The finding of this study coincided with the instruction of MOH in Iraq and Hussain reported that the Temporary licensed Indigenous Midwives must be able to read and write⁽⁷⁻⁸⁾.

The highest percentage (53%) of study sample were of a group whose duration of work in midwifery between 11-20 years and the entire study sample had midwifery and breast feeding courses. As shown in table (2). This finding is consistent with WHO report noted that most traditional birth attendants learned to provide care from their own personal delivery and motherhood experiences, and they also learned from another woman, and have been practicing for an average of more than twenty years and to attend training midwifery course to be Temporary licensed Indigenous Midwives⁽¹⁰⁾.

The highest percentage (44%) of study sample practiced midwifery at their house, and (37%) of them practiced midwifery at mother's house as shown in table (3). This finding is consistent with McCormick and Begum reported that the traditional birth attendants must go to the home of full term women, demonstrate and discuss the preparation of the delivery room with sufficient light in the delivery room and many births in developing countries occur in the home because of cultural preferences, economic reasons, poor quality services, or services that are difficult to access⁽¹¹⁻¹²⁾.

The finding of this study reveals that the highest percentage (96%) of study sample attended deliveries at the same area of midwives' house within their boundaries and (44%) of them conducted the deliveries at their houses while 37% of them conducted delivery at mother's house in addition (61%) of study sample the health agency was close to their houses which helps them in early referral the postpartum hemorrhage cases to these health agency as shown in table (3). Midwives should transport the woman with postpartum hemorrhage to the nearest appropriate hospital with obstetric facilities as quickly as possible.⁽¹³⁾ This finding is consistent with Camey (1996) found that the distance of the mother house from hospital was a cause of delay in relation to maternal mortality⁽⁹⁾.

Figure (1) indicates that midwives' knowledge regarding prevention of postpartum hemorrhage was moderate item score (40) and height is (34) item of relative sufficiency, while low score of relative sufficiency for (17) item low level item (give pitocin with IV fluid) the WHO recommended that the midwives do not use any medication to hasten labor.⁽⁶⁾ The instruction of ministry of health in Iraq (1962) does not allow the midwives to give any medication without physician permission in home delivery, so this is one of malpractices the licensed indigenous midwives giving pitocin during first stage of labor. So as item (Support the perineum when the presenting part is visible) the WHO recommended that the midwives support perineum with pad when the presenting part is visible. So, support the perineum area is a beneficial practice to avoid undesirable tear and laceration⁽⁶⁾.

Figure (2) indicates that midwives' knowledge regarding management of primary postpartum hemorrhage was high scoring (18) of relative sufficiency and moderate score (17) like the item (Empty the bladder) WHO reported that woman should be encouraged to pass urine or catheterization to empty the bladder when uterus is not contract,⁽⁶⁾ and the low score refer to item (Contact with the mother when referral

to health institution) Jill reported if postpartum hemorrhage happens at home birth, the midwife should transport the woman to a hospital, despite the fear from some doctors. Jill found that most study sample refuse to be in contact with the mother when referral because they fear from the doctors comments not from family members⁽⁵⁾.

Figure (3) reveals that the high percentage was 53% of study sample assigned primary postpartum hemorrhage during their practices in midwifery this result agrees with the study done by USAID in Tanzania where majority of respondents did not regard postpartum hemorrhage as an important public health problem in their area. Only 41% considered it as an important public health problem since it occurs very often and a major problem which lead to increase morbidity and mortality among women in fertile age⁽¹⁴⁾.

There are considered statistically significance relationships between knowledge of midwives regarding prevention and management of primary postpartum hemorrhage and their ages and levels of education as shown in table (4), this mean their level of knowledge is better with increased their education level and age. This result agrees with Camey (1996) when analysis of such a relationship has depicted that educated midwives have attended institutional training programmed and adopted some academic medical concepts and use of some pharmaceutical products and surgical instruments in prevention and management of postpartum hemorrhage⁽⁹⁾. While, there are no statistically significance relationships between The study recommends that to provide a licensed indigenous midwives with educational program on safe delivery practices and the importance of referral system, and awareness to the community, targeting women and families on safe motherhood, to encourage attendance to the antenatal clinics at the primary health care centers, and linking, registration of licensed midwives to health center within the catchments

knowledge of midwives regarding prevention of primary postpartum hemorrhage and their marital status, years of experience, training course, location of delivery, number of birth attendants and number of assigned primary postpartum hemorrhage, this mean there is no different in their level of knowledge with all these variables. Bij de Vaate and others concluded that married midwives provide psychosocial support with good communication and be close with mother in the emotional moment of childbirth.⁽¹³⁾ Sibley reported that WHO and other agencies of United Nations promoted training of traditional birth attendants (TBAs) as a global public-health strategy to reduce this tragic loss of life. Lack of evidence to demonstrate that trained TBAs can reduce maternal mortality led to controversy over their training in relation to safe motherhood and a policy shift to skilled birth attendance⁽¹⁵⁾. Hussain found in spite of involve of licensed Temporary licensed Indigenous Midwives with annual training courses for one month as a requirement of renewal at the license (two weeks in central maternity hospital and 2 weeks in primary health care center), this training is not perform within the required level and not according to unified curriculum, for this reason midwives still perform deliveries for women with risky pregnancies⁽⁸⁾. Camey reported that most TBAs learn to provide care from their own personal delivery and experiences, and they also learned from other women.⁽⁹⁾ So the study sample learned their practice from their relatives and difficulties to change and follow updating information and practices in midwifery⁽⁹⁾.

Recommendations

area, to follow up their activities through attending a monthly meeting in the center according to their names and level, and establish diploma degree in midwifery for medical technical institutes and higher diploma degrees in midwifery for college nurse graduates.

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