Nurses – Midwives' Knowledge concerning Pap Smear in Baghdad city Hospitals

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Abstract: - Background: Cervical cancer is one of the leading causes of morbidity and mortality amongst the gynecological cancers worldwide, Cervical cancer is potentially preventable, and through effective screening programs can lead to reduction in the morbidity and mortality associated with this cancer.
Objective: The study aimed to assess nurses-midwives' knowledge concerning the pap smear and determine the association between nurse-midwives' knowledge and their demographic, reproductive variables in Baghdad city Hospitals**.**
Methodology: A descriptive analytical study was carried out from September/ 1/2013 to December /30/ 2013 through a "non-probability" purposive sample of (170) nurse-midwives which was selected from (9) hospitals in Baghdad city, The data were collected by the investigator who interviewed the nurse – midwives and filled out the constructed a questionnaire formats which designed for the purpose of the study and comprised of two main parts: part one including: demographic, reproductive, nursing, midwifery experience and pap smear training course variables, part two including: knowledge concerning pap smear. The validity of the questionnaire was determined through a panel of experts in the specialist fields while the reliability of the questionnaire was determined by calculating the Reliability coefficient . Thereafter, the data were analyzed through the application of descriptive and inferential statistics approach.
Results: The study findings indicated that most of the nurse-midwives' knowledge concerning pap smear test unacceptable, there were low mean of score in all items of nurse- midwives knowledge, there were no statistical significant association between nurses –midwives' knowledge concerning pap smear and their demographic, reproductive variables, their experience, pap smear course and duration of training course.
Conclusion: There were unacceptable results of nurse – midwives' knowledge concerning Pap smear and majority of nurse – midwives hadn't adequate knowledge which can affect the type of care concerning Pap smear.
Recommendations: The study recommends that need for advanced education and training course for nurses – midwives and other health care providers concerning pap smear to increase knowledge and awareness and reactivate national screening program guidelines at best.

Key words: - *Assessment, knowledge, Nurses – Midwives and pap smear.*

I.   INTRODUCTION

Cervical cancer is a preventable disease. The natural history of cervical cancer reveals that it has great potential for prevention and cure as it slowly progresses through several stages of precancerous intra epithelial lesions before developing into an invasive form. This characteristic associated to the relatively easy diagnosis allows detecting this disease at early stages when treatment results in high cure rates [1]. In many of the developed countries the annual incidence and mortality from this cancer has gone down by 50-70% since the introduction of population based screening [2].The most efficient treatment method in cancer is to catch the disease early and make an early diagnosis. Early diagnosis and treatment is quite important in reducing the mortality of the cervix cancer. Pap smear test, which is used in the early diagnosis of cervix cancer, is a test which is easy to apply, inexpensive, not harmful, highly sensitive and it decreases treatment burden, morbidity and mortality [3].

It was demonstrated that all women, whether healthy or ill, can easily establish communication with midwives and nurses on the health care team, who are in closest, longest contact with both diseased and healthy individuals within the society. Because they are both women themselves and easily accessible, nurse-midwives hold a key position in education and counseling services [4].A study revealed that for these reasons, So nurse-midwives need to have good theoretical knowledge of cervical cancer and pap smear test, regardless of their field of expertise [5]. Nurses are the most visible, frontline personnel providing health education to patients and the general population. Because nurses and midwives play an integral role in educating women in prevention of diseases and health promotion, they influence cervical cancer screening adherence and health activities among most women. Moreover, it has been shown that recommendation of cervical cancer screening to individuals by

medical professionals, including nurses, effectively improves screening coverage among the general population [6].Therefore, nurses and midwives should have current and accurate knowledge about pap smear and cervical cancer to promote informed decisions about cervical cancer screening. So the objectives of the study are to assess the nurse-midwives' knowledge concerning pap smear and determine the association between nurse-midwives' knowledge related pap smear and their demographic & reproductive variables in Baghdad city hospitals.

II.   METHODOLOGY

A descriptive analytical design was carried out from 1st September 2013 to 30th December 2013, a purposive "non-probability" sample of (170) Nurse- Midwives which was selected from (9) hospitals in Baghdad city. From Al-Karkh/Health Directorate (4) hospitals including: Al- Kahadymia Teaching Hospital, Al-Yarmok Teaching Hospital ,Al-Karkh Maternity Hospital, Al- Karama teaching Hospital. and from Al-Russafa / Health Directorate (5) hospitals including: Al- Elwia Maternity Teaching Hospital, Fatema Al-Zahra Maternity and Pediatric Hospital, Ibn-Al- Balidy Maternity and Pediatric Hospital, Al-Numan Teaching Hospital and Baghdad Teaching Hospital. The data were collected by the investigators who interviewed the nurse–midwives and filled out the constructed a questionnaire formats which designed for the purpose of the study, so calculate accepted knowledge is (equal or more than 31.5) while unaccepted knowledge is (less than 31.5) through following formula: number of items (21) * cut of point(1.5) = 31.5, The questionnaire comprised of two main parts: first part including demographic, and reproductive the second part including knowledge of pap smear among study sample which consist of (21) items related to knowledge. The validity of the questionnaire was determined through (14) a panel of experts in the specialist fields while; the reliability of the questionnaire was determined to calculate the reliability coefficient. the researcher used appropriate statistical approach through the application of descriptive analysis measures (frequencies and percentages) and inferential statistics approach (Chi–Square) the data were analyzed through the use of Statistical Package of Social Science (SPSS) version 16.0.

III.   THE RESULTS

Table (1) Distribution of nurses- midwives according to their socio-demographic, reproductive variables (N =170).

Variables	No.	%
Age / years		
20 -29	29	17.1
30 - 39	47	27.6
40 - 49	70	**41.2**
50 and above	24	14.1
Educational Level		
Nursing school	34	20.0
Secondary nursing school graduate	37	21.8
Midwifery secondary school graduate	68	**40.0**
Nursing & Midwifery institute graduate	21	12.3
College of nursing	10	5.8
Marital Status		
Married	132	**77.7**
Widow	13	7.6
Separate	7	4.1
Divorced	18	10.6
Income status		
Enough	26	15.3
No enough	92	**54.1**
Enough Approximately	52	30.6
Number of Gravida		
None	15	8.8
Equal or less than 4 gravida	96	**56.5**
Equal or more than 5 gravida	59	34.7
Number of Para		
None	24	14.1
1 – 4 para	113	**66.5**
5 & above	33	19.4
Having previous abortion		
Yes	89	**52.4**
No	81	47.6

Family history of cancer		
Yes	37	21.8
No	133	**78.2**
Total	170	100 %

Table (1) demonstrate that highest percentage (41.2%) of them were in the age of (40 - 49) years (40.0%) were midwifery secondary school graduate, (77.7 %) were married, (54.1%) had not enough income, (56.5 %) have four and less gravida, (66.5 %) had one to five para , (52.4 %) were having previous abortion, and (78.2%) of them haven't family history of cancer.

Table (2) Distribution of nurses – midwives according their experience, pap smear course and duration of training course (N= 170).

variables	NO	%
Nursing experience (year)		
None	14	8.2
Less than 1 year	14	8.2
1 – 5 years	64	**37.7**
6 – 10 years	31	18.2
11 years and above	47	27.7
Midwifery experience (year)		
None	60	**35.3**
Less than 1 year	23	13.5
1 – 5 years	49	28.8
6 – 10 years	14	8.2
11 years and above	24	14.2
Pap smear course		
Yes	5	2.9
No	165	**97.1**
Duration the training course of pap smear		
One week	4	**80**
Two weeks	1	20
Total	170	100 %

Table (2) show that highest percentage of nurse- midwives (37.7%) were having (1 – 5 years) of nursing experience, (35.3%) didn't have midwifery experience, (97.1%) didn't have pap smear course, while highest percentage (80%) of them have one week duration of training course related to pap smear.

Table (3) Level of knowledge regarding Pap Smear among the sample of (170) nurses – midwives.

no.	Knowledge regarding Pap Smear	Yes		No		MS.
		No.	%	No.	%	
1-	Did you hear about pap smear	12	7.0	158	92.9	1.07
2-	Did pap smear scraping cervical cells	84	49.4	86	50.5	1.49
3-	Pap smear able to detect precancerous cell	33	19.4	137	80.5	1.19
4-	Early detection chance curing the cervical disease	18	10.5	152	89.4	1.10
5-	It detect the fibroids tumor	40	23.5	130	76.4	1.76
6-	It reduce mortality & mortality of cervical cancer	25	14.7	145	85.2	1.14
7-	It used in starting onset of married	101	59.4	69	40.5	1.59
8-	It used after 2 weeks of menstrual period	44	25.8	126	74.1	1.25
9-	It starting at age 21	50	29.4	120	70.5	1.29
10-	It doing every 3years in reproductive age	65	38.5	105	61.7	1.38
11-	Women need pap smear after menopause	38	22.3	132	77.6	1.22
12-	Woman need pap smear after hysterectomy for any causes	86	50.5	84	49.4	1.49
13-	Woman need pap when metrorrhagea and menorrhagea occurred	47	27.6	123	72.3	1.2
14-	Woman need pap in pain during sex	49	28.8	121	71.1	1.28
15-	Woman need pap in polymenorrhea	45	26.4	125	76.5	1.26
16-	In weak immune repeat the pap smear	38	22.3	132	77.6	1.22

17-	It used 48 hours after sex	51	30.0	119	70.0	1.30
18-	It used 48 hours after vaginal bathing	32	18.8	138	81.1	1.18
19-	It used 72 hours after vaginal contraceptive	38	22.3	132	77.6	1.22
20-	It used even after HPV vaccine	31	18.2	139	81.7	1.18
21-	It is method of cervical cancer prevention	14	8.2	156	91.7	1.08

Table (3) show that there were low mean of scores in all items of nurse – midwives knowledge according pap smear (N= 170) .

Table (4A) Association between nurses – midwives level of knowledge concerning pap smear and their demographic and reproductive variables

Variables		Knowledge of Nurse- Midwives		Sign value	d.f.	p-value
		Acceptable	Unacceptable			
1- Demographic variables						
Age/years	20-29 Years	12	17	$\chi^2 =$ 4.22	3	0.238 (NS)
	30-39 Years	27	20			
	40-49 Years	39	31			
	50 and above	9	15			
Educational Level	Nursing school	16	19	$\chi^2 =$ 4.078	3	0.253 (NS)
	Secondary school	59	54			
	Medical technique institute	9	12			
	College of Nursing	3	7			
Marital Status	Married	68	64	$\chi^2 =$ 4.095	3	0.251 (NS)
	Widow	4	9			
	Separate	3	4			
	Divorced	12	6			
Income status	Enough	50	41	$\chi^2 =$ 1.113	1	0.291 (NS)
	No enough	37	42			
2- Reproductive Variables						
No. of Gravida	None	6	9	$\chi^2 =$ 0.826	2	0.662N (S)
	Equal or less than 4 gravid	50	46			
	Equal or more than 5 gravida	31	28			
No. of Para	None	9	15	$\chi^2 =$ 2.113	2	0.348 (NS)
	1 – 4 para	60	53			
	5 & above	18	15			
Previous abortion	Yes	46	43	$\chi^2 =$ 0.019	1	0.889 (NS)
	No	41	40			
Family history of Cancer	Yes	18	19	$\chi^2 =$ 0.121	1	0.728 (NS)
	No	69	64			

Table No. (4A) shows that there were no statistical significant association between nurses –midwives' knowledge concerning pap smear and their demographic & reproductive variables.

Table (4B) Association between nurses – midwives' knowledge concerning pap smear and their experience, pap smear course and duration of training course. (N= 170)

Variables		Knowledge of Nurse- Midwives		Sign. value	d.f.	p-value
		Acceptable	Unacceptable			
Nursing experience (year)	Equal or less than 5 years	44	48	$\chi^2 =$ 0.901	1	0.343 (NS)
	More than 5 years	43	35			
Midwifery experience (year)	Equal or less than 5 years	70	62	$\chi^2 =$ 0.812	1	0.367 (NS)
	More than 5 years	17	21			
Pap Smear course	Yes	3	2	$\chi^2 =$ 0.161	1	0.689 (NS)
	No	84	81			
Duration training course	None	84	81	$\chi^2 =$ 1.962	2	0.375 (NS)
	One week	3	1			
	Two weeks	0	1			

Table No. (4B) shows that there were no statistical significant association between nurse – midwives knowledge concerning pap smear in all items and their experience, pap smear course and duration of training course.

IV. DISCUSSION

The findings of the study demonstrate that highest percentage of nurse- midwives (41.2) were in the age of (40 – 49) years, (77.7 %) married, (40.0 %) midwifery secondary school graduate. The finding of the study demonstrate (56.5 %) have four and less gravida, (66.5 %) had one to five para, (52.4 %) having previous abortion, (78.2 %) didn't have family history of cancer as shown in table (1). The finding of the study demonstrate that highest percentage of nurse- midwives (37.7%) were having (1–5 years) of nursing experience, (35.3%) didn't have midwifery experience, (97.1%) didn't have pap smear course, while highest percentage (80%) of them have one week duration the training course of pap smear show in table (2).

According to the level of knowledge regarding pap smear there were low mean of scores in all items regarding nurses – midwives' knowledge about pap smear as show in table (3). These results were unacceptable for the nurse – midwives who working in the maternity department and contact with most of ill or healthy women who need their counseling and education and affecting on the care which introducing to the community. The finding of Present study supported evidence is available in the study that reported (66) midwives in Switzerland found that they did not have adequate information on cervical cancer and screening [7&8]. Likewise the result of a study revealed that high proportion of midwives lacking appropriate knowledge is mainly due to the difficulty of access information. Thus, expanding access to information by organizing seminars and training sessions specifically designed for health team or nurses and midwifery in all types of health facilities could significantly increase the proportion of midwives with adequate knowledge on cervical cancer prevention [9].

Regarding the association between nurse – midwives level of knowledge concerning pap smear and their demographic and reproductive variables, there were no statistical significant association between nurses – midwives knowledge concerning pap smear and their demographic variables (Age, educational level and marital status, income status) and reproductive variables (number of gravida, number of Para, previous abortion and family history of cancer) show in table (4A). Almost of the nurse– midwives have unacceptable level of knowledge according pap smear, most of the study participant (92.9 %) didn't hear about pap smear, while only (7%) hearing about pap smear, the nurse– midwives play an important roles as a health educator and a counselor. Therefore, unacceptable knowledge and low compliance with screening recommendations may lead to negative impact on community in undergoing a pap smear.

Regarding age group : There was no significant association between age group and knowledge of nurses- midwives concerning pap smear as show in (Table 4A). In agreement with a study which reported that there were no significant differences between knowledge of nurse about cervical cancer risk factors or symptoms and screening methods regarding age (p >0.05) [10]. While that contrast with a study which was found a significant association between age and knowledge (p<0.05) [11].

Regarding level of education : There were no significant association between level of education and knowledge of nurses – midwives concerning pap smear show in (Table 4A). That is agreement with a study found level of education of nurses not associated with level of knowledge [11]. While contrast with the study which reported that there was a statistically significant relationship was found between knowledge of the nurse-midwives about cervical cancer and their educational status (p<0.05) [12].

Regarding marital status: there were no significant association between marital status and knowledge of nurses – midwives concerning pap smear as shown in (Table 4A). That means even the marital status not relation to the nurse – midwives' knowledge concerning Pap smear. That contrast with study revealed that this statistically significant difference was created by the married participants. This finding was connected to the fact that married women care more about the early diagnosis of cervical cancer due to having regular sexual activities, may have more gynecological complaints such as abortion and they may have applied to woman labor clinics more [13].

Regarding income status: there were no significant association between income status of nurses–midwives and knowledge concerning pap smear as shown in (Table 4A). In contrast with a study reported that the women in poor and minority communities have been identified as being less likely to utilize screening by pap smears and they are less likely to follow up after an abnormal Pap smear [14].

Regarding number of gravida, Para, previous abortion: there were no significant association between number of gravida, Para, previous abortion and nurses- midwives' knowledge concerning pap smear as shown in (table 4A). Regarding family history of cancer: there were no significant association between family history of cancer and nurse- midwives' knowledge concerning Pap smear show in (table 4A). That contract with the study reported that there were a statistically relationship was determined between having received nurse a pap test and having a history of cancer in their family (p<0.05) [10].

Regarding the association between nurse – midwives knowledge concerning pap smear and their experience, pap smear course, there were no statistical significant association between nurse – midwives' knowledge concerning pap smear in all variables (nursing experience, midwifery experience, pap smear course and duration of training course) show in table (4B). That agreement with the study revealed that there were no significant differences between nurse' knowledge about cervical cancer risk factors or symptoms and screening methods regarding years of experience (p>0.05) [10].

Regarding in service training : There were no significant association between knowledge of nurse-midwives and in service training concerning pap smear as shown in (table 4B). It was in agreement with study which stated the nurse – midwives (73.5%) had received no in-service training (IST) on cancers that are specific to women, and (66.7%) of those who did have training had received no information on PST during the training. It was determined that (75.7%) of those who were trained had received their training from nurses. As vast a portion as(87.5%) of the nurse-midwives were found not to have provided any information related to PST to healthy/ diseased individuals during clinical work [15]. A study reveals that nurses are in a quite suitable position to be the tools of change in the health care system and the whole public. They are working in all kinds of health care environments and in contact with all parts of the population; thus, without knowingly, they are acting as intermediaries of change. With these roles, they are in a key position in helping woman to gain positive knowledge and develop positive attitudes about health and changing the negative knowledge or attitudes as well. This phase is especially important because they act as role models towards the other members of the society with their knowledge about the diagnosis applications and applying these knowledge to real-life situations [12 & 16].

V. CONCLUSION

Nurse – midwives have unacceptable knowledge concerning pap smear, there were no statistical significant association between nurses –midwives' knowledge concerning pap smear and their demographic, reproductive variables, their experience, pap smear course and duration of training course.

VI. RECOMMENDATION

1-Raising knowledge and awareness of nurse- midwives regarding Pap smear.
2-Installing in service educational program for nurse – midwives to upgrade the techniques necessary concerning Pap smear.
3-Initation and screening Pap smear for all health team including nurses- midwives.

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