



RESEARCH ARTICLE

KNOWLEDGE AND AWARENESS OF CONTRACEPTIVE METHODS AMONG PALESTINIAN
MIDWIVES, PALESTINE

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ABSTRACT

Introduction: Despite reliable evidence that the contraceptive methods are highly effective and useful in family planning when used properly, it remains under used in many countries. The aim of this study was to assess the current knowledge about contraceptive methods included (hormonal and copper IUD) and (monophasic and biphasic pills) among Palestinian midwives who work in private hospitals in the southern West Bank, Palestine.

Methods: A descriptive cross-sectional survey was conducted at six private hospital in Bethlehem and Hebron of West Bank, Palestine. Convenience (purposive) sampling method was used in sample selection; it included 150 participants who were interviewed and filled a self-administered questionnaire.

Results: A total of 150 midwives participated in this study, more two thirds of them were between 20 to 34 years of age, (56 %) were not uses of contraceptive methods, (60.7 %) were married and also closed to half had 1 to 4 years of experience (48 %). The knowledge of contraceptive methods was, (51.8%), (51.5 %), (45.9 %) and (58.6 %) for hormonal IUD, copper IUD, monophasic and biphasic pills; respectively. In addition, there is a relationship between knowledge of contraceptive methods and use of contraceptive methods by midwives at ($p = < .011$), department of work ($p = < .019$), average cumulative ($p = < 0.00$) and place of resident ($p = < 0.014$).

Discussion and Conclusions: Although contraceptive methods are available free of charge in our public service, it is not being used. Information about contraceptive methods are available but not utilized by midwives in the private hospitals tested. The data suggests the need to expand education for health service provider in order to improve acceptability of contraceptive methods.

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INTRODUCTION

It is estimated that globally 42 million abortions take place, 22 million of which are conducted safely while 20 million are unsafe. Unsafe abortions account up to 70,000 maternal mortality every year, and further 5 million women complain of permanent disability (Shah and Åhman, 2009). Another study revealed that 890,000 abortions are performed yearly in Pakistan. Interestingly, abortion rates were discovered to be higher in Provinces where the use of contraceptive methods is lower and where child birth rates are higher (Sathar et al., 2007). However, use of emergency contraception prevented more than 50,000 abortions in the year 2000, and accounted for 43% of the total decrease in the abortion rate between 1994 and 2000 (Jones, 2002). One possible approach to decrease

abortions are long-acting reversible contraceptive methods that have been reported to decrease unintended pregnancies (Rose and Lawton, 2012). Moreover, contraceptive methods are highly effective and useful in family planning when used properly with typical failure rates similar to those of surgical sterilization (Tyler et al., 2012). So contraceptive methods have the essential benefits of improving health and survival of women and children from lowering the number of pregnancies (Cleland et al., 2012). Emergency Contraception (EC) (also known as post-coital) refers to a cluster of birth control approaches that can be used after an unprotected sexual intercourse within defined time limits, can prevent an unwanted pregnancy (Byamugisha et al., 2006). Emergency contraceptives are commonly hormonal and provide the women with a choice to prevent unwanted pregnancy after unprotected sexual encounter (Grimes et al., 2006). Moreover, Health knowledge is critical for determining health behavior. Individuals with higher levels of health knowledge may perform healthier behaviors at greater frequency than

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individuals who are less informed (Amro *et al.*, 2017). And also improving the knowledge of contraceptive methods remains a necessary goal, as it is integral to encouraging healthy lifestyles and preventing unwanted pregnancy. In Addition, Many factors had been shown to be associated with better knowledge, for instance, having a driving license, or having a higher level of education (Amro and Qtait, 2017). Recent studies show insufficient knowledge, misinformation and large negative attitude among health workers in Pakistan (Mir and Malik, 2010). Another study conducted in the southwest Ethiopia showed that (89.9%) of women had no information about emergency contraception (Tsfaye *et al.*, 2012). Moreover, a study was conducted in Turkey revealed that only 38.5% of the participants had knowledge about emergency contraception (Zeteroğlu *et al.*, 2004). Literature search indicates that no studies were conducted in southern Palestine that evaluated knowledge of midwives about methods of contraception including hormonal IUCD, copper IUCD, monophasic pills and biphasic pills.

Accordingly, the purpose of this study was to evaluate the current knowledge level of hormonal IUCD, copper IUCD, monophasic pills and biphasic pills among midwives in private hospitals in the south West Bank. And also describe if there is a relationship between knowledge and socio-demographic variables.

MATERIALS AND METHODS

Study design and population

The research design was a cross-sectional descriptive research design. The study population included all possible staff, high diploma and master midwives in the Gynecology and Obstetric wards in all private hospitals in Hebron and Bethlehem cities. Participants were registered from Jan through Mar 2017. The inclusion criteria were a Palestinian midwifery who currently work full time or part time in the private hospitals. While the exclusion criteria were non-Palestinian midwifery, midwives who work as a volunteer and midwives students.

Sample size

The sample size was selected by using Convenience (purposive) sampling, which is a non-probability sampling method. The study included 150 female midwifery from six hospitals (Al Ahli hospital, Red Crescent hospital for children, Al Mezan specialist hospital, Shahera Hospital, Shepherd's Field hospital and Holy Family hospital).

Survey Instrument

All midwives completed a self-administered questionnaire in Arabic designed by the authors. The questionnaire measured the knowledge about hormonal IUD, Copper IUD, monophasic pills and biphasic pills. The survey instrument consisted of five parts. Part I demographic data including use of contraceptive methods, age, marital status, place of study, level of education, cumulative average, current work, place of residence, current department and years of experience. Part II designed of 13 items to estimate the level of knowledge about hormonal IUD. Part III consisted of 15 items to measure the knowledge about Copper IUD. Part IV consisted of 14 items to estimate the knowledge about mono pills. Part V designed of 14 items to measure knowledge about combined pills.

Piloting of the Instrument

Ten participants matching the inclusion criteria for the study finished the survey as a pilot study before collecting actual original data. The essential aim of the pilot study was to determine the interpretability of the questions, estimate the length of time it would take to finish the questionnaire. All participants in the pilot study indicated that the instrument was clear and they were able to finish the questionnaire within twenty minutes. Based on the results of these participants, a few minor modifications were made to the original version of the questionnaire. One question in part two was reworded. The questionnaire was also pre-tested in a pilot study with participants from other private hospitals. Items were tested for reliability in the current study and results shown that Cronbach's alpha coefficient was 0.76.

Procedures

To reach all healthcare providers, a list of all midwives was obtained from each hospital. The questionnaires was handed to participants midwives by the researchers at each shift to minimize bias and to ensure that the participant indeed completed it.

Statistical Analyses

Data were calculated and analyzed using the IBM Statistical Package of social science program (SPSS) version 23. Descriptive and inferential statistics were used to given a mean score of knowledge and also tested the hypothesis using independent t-test and one way ANOVA to determine if there a significance difference between the level of knowledge of midwives about contraceptive methods and demographic variables.

Ethical considerations

Permissions from participants and hospitals were acquired. Midwives participation was fully voluntary. In addition, the confidentiality of the employers was completely secured by providing serial number for each participant at both collection and analysis process. Moreover, collected questionnaires were kept in the safe place.

RESULTS

A total of 150 midwives were selected and welcomed to fill out the self-administered questionnaire. Table 1 gives a review of the respondents including socio demographic variables and general characteristics. More than two thirds of participants were between 20 to 34 years of age, (56 %) were not using contraceptive methods, (60.7%) were married and also closed to half had 1 to 4 years of experience (48 %). Moreover, approximately two thirds of participants had a college cumulative average between (70 - 79%), most of midwives held Bachelor's and Diploma degrees 52 % and 39.3%; respectively.

Knowledge of contraceptive methods

Total knowledge of contraceptive IUCD included (Hormonal & Copper) were (51.65%) while contraceptive Pills included (Monophasic & Biphasic) were (52.25%). Table 2 illustrates the answers of responses about hormonal IUCD questions. The

items had an average hormonal IUCD knowledge score of 51.80%. Focusing in on the specific questions related to the knowledge of hormonal IUCD showed that the very low percent of the midwives (18.7 %) correctly answered that hormonal IUCD are not T-shaped devices and does not contain estrogen in the bottom side and (26 %) correctly responded that the side effect of hormonal IUCD enhanced stopping the menstrual cycle and lead to infertility. While the largest percentage (77.3%) correctly identified that hormonal IUCD prevent pregnancy by increasing the thickness of the uterine lining and increase the density and viscosity of the mucus in the cervix.

IUCD failed to prevent pregnancy is 0.1 - 2% and 30%) correctly identified that Copper IUCD prevents pregnancy by increasing mucous substance in the cervix and thus prevent the arrival of sperm to egg. However, the largest percentages (92.7%) and 90%) correctly responded that the Copper IUD is a T shaped device and Copper IUD is the same of Copper T380A (Paragard); respectively. Table 4 shows the answers of participants about monophasic pills questions. The items had an average monophasic pills knowledge score of 45.9% which is a relatively low percentage. Looking for the specific questions related to the knowledge of monophasic pills showed that low percent of the midwives (17.3 %) correctly answered

Table 1. Characteristics of sample according to their Socio-demographic data (n = 150)

Characteristics	No. of respondents (n)	%	
Age-group	Between 20-24	46	30.7
	Between 25-29	56	37.3
	Between 30-34	24	16.0
	35+	24	16.0
Used of Contraceptive	Yes	66	44.0
	No	84	56.0
Marital status	Married	91	60.7
	Divorced	9	6.0
	Widow	4	2.7
	Single	44	29.3
	Separated	2	1.3
Experience	less than one year	22	14.7
	1 - 4 years	72	48.0
	5 - 10 years	40	26.7
	11 and up	16	10.7
Average cumulative	50-59 %	3	2.0
	60-69 %	10	6.7
	70-79 %	93	62.0
	80-89 %	37	24.7
	90% and up	7	4.7
Level of education	Diploma	59	39.3
	Bachelor's	78	52.0
	High diploma	10	6.7
	Master degree	3	2.0
Place of resident	city	80	53.3
	village	48	32.0
	camp	22	14.7
Departments	Delivery room	43	28.7
	maternity department	73	48.7
	Women's Division	34	22.7

Table 2. Percentages of the responses about Hormonal IUCD Items (n=150)

Items	False n (%)	I don't know n (%)	True n (%)
1- The Levonorgestrel - releasing T IUCD is the same of Mirena IUCD.	40(26.7%)	14(9.3%)	96(64%)*
2- Hormonal IUCD is the same of Copper T380 A IUCD (paragard).	77(51.3%)*	13(8.7%)	60(40%)
3- Hormonal IUCD is the T -shaped and contain estrogen in the bottom side.	28(18.7%)*	1(0.7%)	121(80.7%)
4- The duration of effectiveness Hormonal IUCD is 3 years.	66(44%)*	20(13.3%)	64(42.7%)
5- The proportion of Hormonal IUCD failed to prevent pregnancy is 0.2%	13(8.7%)	34(22.7%)	103(68.7%)*
6- Hormonal IUCD prevent pregnancy by increasing the thickness of the uterine lining and increase the density and viscosity of the mucus in the cervix.	20(13.3%)	14(9.3%)	116(77.3%)*
7- Hormonal IUCD prevent pregnancy by decreasing the thickness of the uterine lining and decreasing the density and viscosity of the mucus in the cervix.	103(68.7%)*	22(14.7%)	25(16.7%)
8- Lactating women can put Hormonal IUCD.	29(19.3%)	15(10%)	106(70.7%)*
9- Hormonal IUCD decrease dysmenorrheal.	57(38%)	27(18%)	66(44%)*
10- Disadvantage of hormonal IUCD that enhanced to delay and stopping the menstrual cycle and lead to infertility.	39(26%)	18(12%)	39(26%)*
11- side effect of Hormonal IUCD lead to weight gain	41(27.3%)	21(14%)	88(58.7%)*
12- From indication of Hormonal IUCD that decrease the amount of blood loss in case of Menorrhagia and Dysfunctional uterine bleeding.	55(36.7%)	10(6.7%)	85(56.7%)*
13- The preventing using of Hormonal IUCD if the women complained of Anemia	37(24.7%)*	24(16%)	89(59.3%)
Overall of correct answers about knowledge of Hormonal IUCD is 51.80 %			

Note: * = correct answer.

Table 3 gives the answers of participants about Copper IUCD questions. The items had an average Copper IUCD knowledge score of 51.5 %. Focusing in the specific questions related to the knowledge of Copper IUCD showed that a very low percent of midwives (16.7 %) correctly answered that Copper

that monophasic pills are contraindicated for pregnant women because it will affect the fetus and (30.7%) correctly identified that monophasic pills will protect the female from endometrial and ovarian cancer. However, the largest percentage (69.3 %) correctly answered that monophasic pills may cause depression as a side effect.

Table 3. Percentages of the responses about Copper IUCD Items (n=150)

Items	False %	I don't know %	True %
1- Copper IUD is the same of Copper T380A (Paragard)	9(6%)	6(4%)	135(90%)*
2- Copper IUD is a T shaped device	4(2.7%)	7(4.7%)	139(92.7%)*
3- Copper IUCD contain of plastic material and the bottom may contain of Copper and Silver or Copper only.	10(6.7%)	10(6.7%)	130(86.7%)*
4- Duration of Copper IUCD is 10 years.	59(39.3%)	10(6.7%)	81(54%)*
5- The proportion of Copper IUCD failed to prevent pregnancy is 0.1 - 2%	25(16.7%)*	30(20%)	95(63.3%)
6- The presence of copper in IUCD may leads to inflammation of the lining of the endometrial.	53(35.3%)	14(9.3%)	83(55.3%)*
7- Copper IUCD prevent pregnancy through doing alteration or change on Morphology of cell of endometrial.	60(40%)	23(15.3%)	67(44.7%)*
8- Copper IUCD prevents pregnancy by increasing mucous substance in the cervix and thus prevent the arrival of sperm to the ovum.	45(30%)*	7(4.7%)	98(65.3%)
9- Not preferred to put the Copper IUCD during the menstrual period because of the fear of uterine perforation during positioned.	51(34%)*	29(19.3%)	70(46.7%)
10- It is preferred putting the Copper IUCD for women during menstrual period due to the cervix is already opened through this is easy to set	50(33.3%)	13(8.7%)	87(58%)*
11- The copper IUCD not react with other medications	26(17.3%)	33(22%)	91(60.7%)*
12- The uses of Copper IUCD protect the women from ectopic pregnancy.	103(68.7%)	20(13.3%)	27(18%)*
13- The disadvantage of Copper IUCD that lead to Pelvic Inflammatory Disease (PID).	39(26%)*	22(14.7%)	89(59.3%)
14- It may for women previous delivered one baby to use Copper IUCD.	51(34%)	15(10%)	84(56%)*
15- The contraindication for used Copper IUCD is women complain of lower back pain	34(22.7%)	40(26.7%)	76(50.7%)*
Overall of correct answers about knowledge of Copper IUCD is 51.5 %.			

Note: * = correct answer.

Table 4. Percentages of the responses about Monophasic pills Items (n=150)

Items	False %	I don't know %	True %
1- Monophasic pills contains estrogen only	63(42%)*	4(2.7%)	83(55.3%)*
2- Monophasic pills contains progesterone only	57(38%)	7(4.7%)	86(57.3%)*
3- The rate of failure of Monophasic pills average 0.7 - 7%.	28(18.7%)	41(27.3%)	81(54%)*
4- Monophasic pills prevents occurring the pregnant through increase thickness of mucous in cervix which leading to impedes entering the sperms to ovum	39(26%)	13(8.7%)	98(65.3%)*
5- Monophasic pills prevent pregnancy through reducing the movement of fallopian tubes this impedes arriving the fertilized ovum and prevent fertilization.	80(53.3%)	14(9.3%)	56(37.3%)*
6- When women starting to use Monophasic pills it prefer to used another methods such as condom.	48(32%)	17(11.3%)	85(56.7%)*
7- It should stop taking Monophasic pills every period.	60(40%)	34(22.7%)	56(37.3%)*
8- It prefer giving Monophasic pills for women who complains of polycystic ovary	58(38.7%)	31(20.7%)	61(40.7%)*
9- Take monophasic pills will protect the female from endometrial and ovarian cancer	73(48.7%)	31(20.7%)	46(30.7%)*
10- Take monophasic pills will protect the female from breast cancer and osteoporosis.	74(49.3%)*	40(26.7%)	36(24%)
11- Monophasic pills leading to increase possibility to occurring breast cancer	44(29.3%)	38(25.3%)	68(45.3%)*
12- Monophasic pills is a contraindication for pregnant women because it will affect the fetus	26(17.3%)*	29(19.3%)	95(63.3%)
13- The side effect of Monophasic pills that doing spotting on the skin and pain in breast	53(35.3%)	35(23.3%)	62(41.3%)*
14- Side effect of monophasic pills can cause depression	8(5.3%)	38(25.3%)	104(69.3%)*
Overall of correct answers about knowledge of Monophasic pills is 45.9 %.			

Note: * = correct answer.

Table 5. Percentages of the responses about Biphasic pills Items (n=150)

Items	False %	I don't know %	True %
1- Biphasic pills usually consists from estrogen and progesterone only	11(7.3%)	1(0.7%)	138(92%)*
2- The failure rate of biphasic pills is 0.18%	17(11.3%)	38(25.3%)	95(63.3%)*
3- The mechanism of action of biphasic pills in pregnancy are stopping the ovulation and increase the thickness of the mucous in cervix.	28(18.7%)	15(10%)	107(71.3%)*
4- The mechanism of action of biphasic pills in pregnancy are decrease motility of fallopian tube and doing changes in the endometrial.	59(39.3%)	23(15.3%)	68(45.3%)*
5- Biphasic pills given in cause of premature ovarian failure	42(28%)	43(28.7%)	65(43.3%)*
6- The advantage of Biphasic pills, are regulate the menstrual cycle.	28(18.7%)	14(9.3%)	108(72%)*
7- The advantage of Biphasic pills, are the women able to be pregnant immediately after top the pills.	26(17.3%)	22(14.7%)	102(68%)*
8- Biphasic pills decrease the chance of developing the Pelvic Inflammatory Disease (PID) and ovarian cysts	63(42%)*	43(28.7%)	44(29.3%)*
9- Biphasic pills treat Anemia	61(40.7%)	34(22.7%)	55(36.7%)*
10- Side effect of biphasic pills leading to menstrual irregularity & infertility	86(57.3%)*	43(28.7%)	21(14%)
11- Side effect of biphasic pills leading to headache, edema and chest pain.	20(13.3%)	12(8%)	118(78.7%)*
12- Side effect of biphasic pills leading to weight gain	55(36.7%)*	8(5.3%)	87(58%)
13- Biphasic pills leading to fluid retention in the body.	33(22%)	23(15.3%)	94(62.7%)*
14- Biphasic pills are not given for lactating women	28(18.7%)	26(17.3%)	96(64%)*
Overall of correct answers about knowledge of Biphasic pills is 58.6%			

Note: * = correct answer.

Table 5 shows the answers of participants about biphasic pills questions. The items had an average biphasic pills knowledge score of 58.6 %. Looking for the specific questions related to the knowledge of biphasic pills showed that a low percentage of the midwives (36.7 %) correctly answered that one of the side effects of biphasic pills is weight gain and (29.3 %)

correctly identified that biphasic pills decrease the chance of developing Pelvic Inflammatory Disease (PID) and ovarian cysts. However, most of the midwives identified that the biphasic pills usually consist of estrogen and progesterone only (92 %).

Table 6. Relationship between the knowledge of contraceptive methods

Variable	Group (n)	Mean (SD)	F statistic (df)	P value
Used of contraceptive	Used (66)	123.00(14.70)	1.211 (148)	.011
	Not used (84)	128.10(9.57)		
Years of experience	less than one year (22)	120.40(21.59)	2.149 (3)	.097
	1 - 4 years (72)	127.25(9.21)		
	5 - 10 years (40)	127.27(10.65)		
	11 and up (16)	123.56(9.71)		
Age	20-24 (46)	123.67(17)	1.070 (3)	.364
	25-29 (56)	126.62(9.25)		
	30-34 (24)	128.91(9.93)		
	35+ (24)	125.20(9.66)		
Department of work	Delivery room(43)	122.48(16.91)	4.095 (2)	.019
	maternity department(73)	125.72(9.93)		
	Women's Division(34)	130.41(8.37)		
Level of education	Diploma(59)	124.50(16.23)	.577 (3)	.631
	Bachelor's(78)	126.34(9.02)		
	High diploma(10)	129.40(9.44)		
	Master degree(3)	128.00(1.73)		
Average cumulative	50-59 % (3)	80.66(42.72)	14.004 (4)	.000
	60-69 % (10)	125.80(11.68)		
	70-79 % (93)	126.77(9.67)		
	80-89 % (37)	126.59(8.15)		
	90% and up (7)	129.28(8.57)		
Place of residence	City(80)	123.30(14.43)	4.399 (2)	.014
	Village(48)	129.79(9.45)		
	Camp(22)	126.59(5.72)		

As shown in Table 6, the relationship between demographics and knowledge of contraceptives methods indicate a relationship of statistical significance at the level $\alpha = 0.05$ with the used of contraceptive methods ($p < .011$), department of work ($p < .019$), average cumulative ($p < 0.00$) and place of resident ($p < 0.014$). However, no relationship was detected with years of experience, marital status, age, place of education and level of education.

DISCUSSION

To our knowledge, this study is the first in southern Palestine to examine knowledge about contraceptive methods of levonorgestrel IUD, copper IUD, monophasic and biphasic pills among Palestinian midwives in private hospitals. In this study, general knowledge of midwives about both hormonal and copper IUD was generally weak (51.65%). Other studies support these results, for example similar studies conducted in Nepal and India show an average of (61.4%) correctly answers the questions about IUD (Chakraborty *et al.*, 2015) and (66.5%) of participants correctly answers the IUD questions respectively (Espey *et al.*, 2003). In addition, data from this study shows that total knowledge about contraceptive pills (CP) including both monophasic and biphasic is (52.25%), there is one study that supports our results conducted in Dar Es Salaam that shows (49%) of the participants had poor knowledge about CP (Kagashe *et al.*, 2014).

Knowledge of Levonorgestrel and copper IUD

Study participants correctly identified 13 items about Levonorgestrel IUD and the total knowledge is (51.80%). Moreover, (68.7%) correctly answered that the proportion of Levonorgestrel IUD failed to prevent pregnancy in 0.2% of users and (26 %) correctly identified that the disadvantage of Levonorgestrel IUD that it may enhance stopping the menstrual cycle. One study support these results revealed that (61%) correctly answered that IUD as effective as sterilization but reversible and (22%) correctly identified that Levonorgestrel IUD may cause stopping the menstrual cycle

(van Zijl *et al.*, 2010). However, Study participants correctly identified 15 items about Copper IUD and the total knowledge is (51.5%). Moreover, in this study, (86.7 %) correctly answered that the Copper IUD is composed of plastic material and Copper; in addition (54 %) correctly identified that the duration of Copper IUCD is 10 years. In the literature, a study revealed that (26%) of participants were informed that the IUD is a small device made of plastic and copper and close to (16%) correctly identified that IUD protect against pregnancy for up to 10 years (Brambila & Taracena, 2003). In addition, in this study, (26 %) correctly answered that the disadvantage of Copper IUCD that may lead to Pelvic Inflammatory Disease (PID), which is low. Another study showed that (73%) correctly answered that the IUDs do not increase the long-term risk of PID (Schubert *et al.*, 2015)

Monophasic and Biphasic Pill

Data from the current study indicate that the general knowledge of midwives about both monophasic and biphasic was generally weak (52.25 %). Many studies support our results, for example a study conducted among assistant nurses and midwives in Malaysia showed that the knowledge of contraceptive methods is only (33%) (Suhaimi *et al.*, 1996) and another study conducted among university students in Cameroon revealed (62.7%) have weak knowledge about contraceptive pills (Kongnyuy *et al.*, 2007). Study participants correctly identified 14 items about Monophasic pills and the total knowledge is (45.9 %). Moreover, participants correctly identified the side effect of monophasic pills may cause depression (69.3 %). This is consistent with literature reports that the most commonly stated reason for discontinuing contraceptive pills is depression (Kulkarni, 2007). In this study, (56.7 %) answered that women who started to use Monophasic pills prefer to use another methods such as condom, this is supported by one study that show the intentions of using CPs and condoms were positively correlated with each other (Kang and Moneyham, 2008). On the other hand, study participants correctly identified 14 items about biphasic pills and the total knowledge is (58.6 %). Midwives correctly identified (92 %) that biphasic pills usually

consists of estrogen and progesterone, which is the highest item that answered correctly. However, (28.7 %) of midwives incorrectly indicated that biphasic pills lead to menstrual irregularity and infertility. One study that supports this result was conducted in Pakistan showed that about 38% of the participants incorrectly chose menstrual irregularity as the side effect of progestin only C P (Hamza and Syed, 2009).

Significant relationships among contraceptive methods

The relationship between the knowledge of contraceptive methods and the current work was significant ($p = < .019$). Moreover, there is a relationship between knowledge of contraceptive methods and midwives use of contraceptive at ($p = < .011$), with midwives that do not use contraceptive methods being more knowledgeable about contraceptive methods. One study shown that (11.5%) had ever used of emergency contraception (Nworah *et al.*, 2010). In addition, there is also relationship between knowledge of contraceptive methods and university cumulative average at ($p = < .000$), midwives who were have (70 – 79%) or higher are knowledgeable.

Recommendations: To enhance knowledge of contraceptive methods among midwives, we recommend expanding general courses about family planning in universities and colleges in Palestine. Focusing on the advantages and disadvantages of contraceptive methods in general and also conducting refreshing training courses in private hospitals. We also recommend for the Ministry of Health to provide more programs about general contraceptive methods in order to increase general knowledge about sexual and reproductive issues.

Limitation: All the providers agreed to be interviewed, and eliminating the possibility of selection bias in this group of participants. The sample was smaller than we had expected to recruit and this is because some private hospitals did not give permission to participate in the study and also the number of current users of IUD was small. Finally the budget was limited and played the main role to not take all of the private hospitals in Palestine.

Conclusion

This study gives new information about knowledge and information about the contraceptive methods in Palestinian private hospitals, and gives some factors that contributed to lack of knowledge about contraceptive methods. Moreover, information about methods of contraception is available but not utilized by midwives in the private hospitals tested. Expanding education for health service provider is essential to improve acceptability of contraceptive methods.

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