Misconceptions about Oral Contraceptive Pill Used Among Women at Primary Health Care Centers in Holy Karbala City

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Abstract:
Back ground: *Several misconceptions about the consequences of using oral contraceptive pill such as; fear of infertility, cancer and tumors.*
Objectives: *To identify misconceptions about oral contraceptive pill Used and find out relationship between misconceptions and demographic variables, reproductive variables and previous used of oral contraceptive pill among women who are attending primary health care centers.*
Methodology: *A descriptive analytic study was conducted on a non-Probability (purposive sample) of (200) women in reproductive age From (15-49) years who were attending family planning clinic at Four primary health Care Centers in Holy Karbala city . The Study was conducted during period of April 11th2015 to June 11th 2015. Questionnaire was used as a tool of data collection to fulfill with objectives of the study and consisted of three parts: Demographic Characteristics , Reproductive Characteristics , Misconceptions about oral contraceptive pill. A pilot study was carried out to test the reliability of the questionnaire and content validity was carried out through 20 experts. Descriptive and inferential Statistical analysis were used to analyze the data.*
Results: *The results of the study found that the highest percentage (72.5 %) of study sample their age was ranged between (21 - 35) years, (86%) of them were housewife and (55%) of them was graduated from primary School and less and (51 %) of them did not have enough income . Regarding the study sample the highest percentage for reproductive status was (43%) number of them had (3- 4) deliveries and (63%) of them had (1-2) child birth live. Most items concerning misconception about oral contraceptive pill are within moderate level of mean score.*
Conclusions: *Based on the study finding that women's misconceptions regarding of oral contraceptive pills is due to lack of knowledge and did not have accurate source of information about the method*
Recommendations: *The study improve accurate scientific conceptions about oral contraceptive pill through health education and counseling for women who attending family planning clinic at Primary Health Care Centers . Distribution of brochures to educate them in addition to audiovisual media about how using contraceptive methods and benefit to prevent unwanted pregnancy.*
Key words: *estrogen, Misconceptions, Oral Contraceptive Pill and progestin*

1.Introduction

Hormonal contraception: refers to birth control methods that act on the endocrine system. Almost all methods are consist of steroid hormones. Hormonal contraception is primarily used for avoid of unwanted pregnancy, and also prescribed for the treatment of polycystic ovary syndrome, menstrual disorders such as dysmenorrhea and menorrhagia, and hirsutism[1] . Combined oral contraceptives are effective in normalizing irregular periods lower symptoms of premenstrual dysphonic disorder, improving acne, and permit women to avoid having their period at inconvenient times, such as during a business trip, vacation, or honeymoon," The scientific evidence shows that the longer a woman uses the birth control pill, the reduce the risk for developing endometrial and ovarian cancer later, up to 20 years after discontinuing use. The pill also seems to offer some short-term prevention against colorectal cancer among current or recent users[2]. It is highly effective reversible contraception and provide highly consistent contraceptive protection, exceeding 99% in addition can offer significant relief to women with painful menstrual cramps (dysmenorrhea). Decreased risk of iron deficiency (anemia) due to lower the amount of blood flow during the period.. Reduce the risk of ovarian cysts. The risk of progress ovarian cysts is greatly reduced for birth control pills users because they help prevent ovulation. An ovarian cyst is a fluid - filled growth that can develop in the ovary during ovulation[3].

Objectives of the study: To identify the misconceptions about oral contraceptive pill used and find out relationship between misconceptions of oral contraceptive pill and demographic , reproductive variables and other studied variables Among women who attending primary health care centers.

II. Methodology

Descriptive and analytic design was conducted to identify misconceptions about oral contraceptive pill used among women who attend Primary Health Care Centers In Holy Karbala City. The research study was conducted in four primary health care centers at Karbala City which has a family planning clinic : AL-Abbas Primary Health Care Center, BAB-Baghdad Primary Health Care Center, AL- Abasia ALsharqia Primary Health Care Center and AL- Abasia ALgarbia Primary Health Care Centers .A non Probability (purposive) samples of (200) women who were attending   family planning clinic at Primary Health Care Centers A questionnaire format was constructed and based on previous studies and review of literature related to women's misconceptions about oral contraceptive pill and it was consisted of three parts: Demographic Characteristics , Reproductive Characteristics , Misconceptions about oral contraceptive pill. Content validity for relevancy and competency of the instrument was organized through a panel of (20) experts. The mean and SD for experience years for experts were ($\overline{X}$ SD = 21.50 $\mp$ 10.31) . All recommended modifications which were achieved according to experts opinions and their comments.   A pilot study was conducted on(15) women from AL- Hussainia Sector / primary health care centers at the Holy City of Karbala during 15th march - 30th march 2015 to find out any problem with the research design and obtain an opinion about the participants , data collection and methodology. The researcher found as a result of pilot study that some questions need explanation and other required rewarding . So the total time required to complete each questionnaire and interview was ranged approximately (20 - 40) minutes .So the pilot study sample was excluded from the original sample of the study. Reliability of questionnaire was determine through the use of Test- Retest approach. So the result of correlation coefficients for the women's misconceptions about hormonal methods was (r =0.849) which is statistical acceptable. Women's misconceptions about oral contraceptive pill were rated and scored for each item as three (3) for yes and two (2) for not sure and one (1) for no while the numeric values for the negatives items of the scale one (1) for yes and two (2) for no. Rating the items of misconceptions as accepted and unaccepted level of misconceptions based on cutoff point by using the following formula : Level of knowledge = No. of items $\times$ Cut off point

III. Results

Table (1): Distribution of Study Sample According to Demographic Characteristics (n= 200).

Demographic characteristics	Women(n=200)	
Age/years	No.	%
15-20	7	3.5
21-35	125	72.5
36 & above	68	34.0
$\overline{x}$ SD= 32.79$\mp$7.28		
Occupation		
Housewife	172	86.0
Governmental Employment	24	12.0
Private Employment	4	2.0
Educational Level for Women		
Graduate of Primary School and Less	110	55.0
Graduate of Intermediate School	46	23.0
Graduate of Secondary School	14	7.0
Graduate of Institution	19	9.5
College Graduate & above	11	5.5
Educational Level of their Husband		
Graduate of Primary School and Less	85	42.5
Graduate of Intermediate School	54	27.0
Graduate of Secondary School	24	12.0
Graduate of Institution	14	7.0
College Graduate & above	23	11.5
Economic Status		
Enough	46	23.0
Enough to some extent	51	26.0
Not enough	102	51.0

Table (1) shows that the highest percentage (72.5%) of study sample their age group was ranged between (21-35) years with mean age and SD was (32.79 ∓ 7.28) years. Most of them (86 %) was housewife. level of education for women and their husbands (55%), (42.5%) respectively was graduated of primary school and less And the highest percentages (51%) of study sampling their economic status was not enough.

Table (2): Distribution of Study Sample according to Reproductive and Menstrual Cycle Characteristics (N=200)

Reproductive and Menstrual Cycle Characteristics (women n=200)		
Menarche	**No.**	**%**
9 – 11 years	60	30.0
12 – 14 years	129	64.5
15 – 17 years	11	5.5
$\bar{x}$ SD = 12.39 ∓ 1.52		
Duration of menstrual cycle		
1 – 3 days	17	8.5
4 – 7 days	170	85.0
8 – 10 days	13	6.5
$\bar{x}$ SD = 5.67 ∓ 1.55		
Amount of menstrual cycle		
Mild	36	18.0
Moderate	129	64.5
Severe	35	17.5
Regularity of cycle		
Regular	161	80.5
Irregular	39	19.5
Year of marriage		
Less than one year ＞ 5	14	7.0
5 – 9 years	58	29.0
10 – 14 years	49	24.5
15 – 20 years	55	27.5
21 –& above	24	21.0
$\bar{x}$SD = 12.87 ∓ 6.51		
Gravida / Number of pregnancies		
1 - 2	119	59.5
3-4	73	36.5
5 &more	8	4.0
Parity / Number of births		
1- 2	47	23.5
3-4	86	43.0
5 & more	67	33.5
Number of abortions		
None	139	69.5
1-2	53	26.5
3 & more	8	4.0
Interval between Pregnancies		
1-2 years	152	76.0
Above 2 years	48	24.0

Table (2) shows that the highest percentage (64.5%) of study sample whose age of menarche was at age group (12-14) years, with mean age and SD was (12.39 ∓ 1.52) years. (85%) of study sample their duration of cycle was ranged between (4-7) days, with mean duration and SD was   (5.67 ∓ 1.55) days. (64.5%) of study sample had moderate amount of blood lost during menstruation, (80.5 %) of study sample had regular menstrual cycle. (29%) of study sample their duration of marriage was ranged between (5-9) years, with the mean age and SD was (12.87∓ 6.51) years . (59.5%) of study sample had (1-2) pregnancies, (43%) of study sample had (3- 4) deliveries, (69.5%) of study sample did not have any type of abortion, (76%) of study sample had (1-2) years period of Interval between Pregnancies.

Table (3) Misconceptions about oral contraceptive pills among women (n= 200).
* Negative response . Assessment with Scoring Scales. [i.e. Low (1-1.49), Moderate (1.5 – 2.49), and High

Misconceptions About Oral Contraceptive Pills		Yes		Not sure		No		M.S	assessment
		No.	%	No.	%	No.	%		
A.1*	Cause nervousness among women	181	90.5	4	2.0	15	7.5	1.17	L
A.2*	Changes in mood	171	85.5	11	5.5	18	9.0	1.235	L
A.3*	Lead to occurrence of osteoporosis	154	77.0	19	9.5	27	13.5	1.365	L
A.4	Protect against sexual transmitted diseases	19	9.5	107	53.5	74	37.0	1.725	M
A.5*	Protect against ovarian cancer	15	7.5	131	65.5	54	27.0	2.195	M
A.6*	Protect the endometrial uterus cancer	19	9.5	132	66.0	49	24.5	2.15	M
A.7*	Prevent polycystic ovary	25	12.5	123	61.5	52	26.0	2.135	M
A.8*	Reduce pelvic inflammatory diseases	26	13.0	92	46.0	82	41.0	2.28	M
A.9*	Prevent benign breast disease	23	11.5	119	59.5	58	29.0	2.175	M
A.10	Cause breast cancer	26	13.0	122	61.0	52	26.0	1.87	M
A.11	Cause cervical cancer	29	14.5	125	62.5	46	23.0	1.915	M
A.12	Cause miscarriage if used as the wrong way	47	23.5	80	4 0.0	73	36.5	1.87	M
A.13	Cause infertility	55	27.5	53	26.5	92	46.0	1.815	M
A.14*	Reduce amount of milk for lactating mother	136	68	37	18.5	27	13.5	1.455	M
A.15	Hormonal accumulation in body woman the	101	50.5	68	34.0	31	15.5	2.35	M
A.16	Fetal abnormalities	45	22.5	92	46.0	63	31.5	1.91	M
A.17	Harm the fetus	48	24.0	88	44.0	64	32.0	1.92	M
A.18*	Abnormalities in new born babies	50	25.0	81	40.5	69	34.5	1.905	M
A.19*	Use of oral contraceptives religious accepted	148	74.0	28	14.0	24	12.0	1.38	L
A.20	Used Pills at the time of intercourse only	11	5.5	17	8.5	172	86.0	1.195	L
A.21	need a rest period after the use of hormonal method	91	45.5	37	18.5	72	36.0	2.095	M
A.22	Hormonal methods have negative side effect headache hypertension	172	86.0	8	4.0	20	10.0	2.76	H
A.23*	Protect from anemia and regulate the menstrual	136	68.0	24	12.0	40	20.0	1.52	M
A.24	High effective rate to prevent unwanted pregnancies	172	86.0	14	7.0	14	7.0	2.79	H
A.25	Increase weight during intake of pills	102	51.0	50	25.0	48	24.0	2.27	M
A.26	Increase sexual desire	27	13.5	78	39.0	95	47.5	1.66	M
Grand mean score= 1.89									

(2.5 –3)].

Table (3) shows that the highest mean score(2.79) of study sample had misconceptions regarding items no.(A.24) which refers that contraceptive pills is highly effective rate to prevent unwanted pregnancies. Most items regarding misconception of oral contraceptive pills are within moderate mean score. So Grand mean score was (1.89) which considered moderate mean score regarding misconceptions about oral contraceptive pills**.**

Table (4): Association between women's Misconceptions Regarding oral contraceptive pills and Study variables (n=200)

No	Studied variables	x^2	p-Value	Sig
1	AGE / years	9.77	0.135	NS
2	Occupation	1.41	0.49	NS
3	Level of education for study sample	3.68	0.81	NS
4	Level of education for their husband	5.28	0.62	NS
5	Economic status	0.34	0.84	NS
6	year of marriage	9.30	0.05	<u>S</u>
7	Menarche	0.63	0.72	NS
8	Duration of menstrual	0.75	0.68	NS
9	Amount of menstrual cycle	6.82	0.03	<u>S</u>
10	Menstrual status	0.001	0.98	NS
11	Gravida	2.49	0.28	NS
12	Duration between pregnancy	0.008	0.92	NS
13	Number of abortion	0.95	0.81	NS
14	Number of alive children	3.04	0.38	NS
15	Number of para	8.84	0.01	<u>S</u>
16	previous used oral contraceptive pills	17.65	0.000	<u>S</u>

Table (5) shows that there are a statistical significant relationship between oral contraceptive pills and studied variables which include year of marriage, amount of menstrual cycle, number of para and continuous use oral contraceptive pills, while there was no statistical significant relationship with rest of studied variables.

IV. Discussion

Socio Demographic Characteristics : The result reported that the highest percentage (72.5 %) of study sample are at age between (21-35) years old, while the lowest percentage (3.5%)were at age between(20-15) years old. With mean age and SD is (32.79 ∓ 7.28). Most of them (86 %) was housewife. level of education for women and their husbands (55%), (42.5%) respectively was graduated of primary school and less And the highest percentages (51%) of study sampling their economic status was not enough as shown in table (1). There is no statistical significant association between socio demographic variables and misconception of study sample about oral contraceptive pill which was reported in table (4).

It was reported that occupation of women is one of the important socio-economic status indicators for the effective contraceptive behavior[3]**.** It was reported that women with high level of education indicate that education of women in that community also empowered them to take decisions regarding adoption of contraception. Literacy of high school and above among women positively influenced by the use of contraceptives[4]. low level of education, particularly among women is one of the major causes behind high fertility and low contraceptive use[5]. Some of the women do not use family planning due to economic factors. The methods of conceptions which were Depo provera and noristerat, are injection that typically very expensive for most individuals to afford. In most of the health centers, if a client does not have the money they go back home without a proper contraceptive and may be at risk for unwanted pregnancies[6].

Reproductive Characteristics: Present study reported that the highest percentage (29%) of study sample their years of marriage were ranged between (5-9) years, with the mean age and SD was (12.87∓6.51) years; (64.5%) of study sample their age of menarche was ranged between (12-14) years, with mean age and SD was (12.39 ∓ 1.52) years. (85%) of study sample their duration of cycle was ranged between (4-7) days, with mean duration and SD was (5.67 ∓ 1.55) days. (64.5%) of study sample had moderate amount of blood lost during menstruation, (80.5 %) of study sample had regular menstrual cycle. (29%) of study sample their duration of marriage was ranged between (5-9) years, with the mean age and SD was (12.87∓ 6.51) years . (59.5%) of study sample had (1-2) pregnancies, (43%) of study sample had (3- 4) deliveries, (69.5%) of study sample did not have any type of abortion, (76%) of study sample had (1-2) years period of Interval between Pregnancies as shown in table (2) There are a statistical significant relationship between oral contraceptive pills and studied variables which include year of marriage, amount of menstrual cycle, number of para and continuous use oral contraceptive pills, while there was no statistical significant relationship with rest of studied variables as shown in table (4). A study conducted by Ringheim and Gribble reported that married adolescents

wish to delay, space, or detect their births more often than older married adult women. So that success in preventing unwanted or mistimed pregnancy often depends on having access to contraceptive information, methods, and services[7]. A qualitative study in Senegal suggest that females fertility intentions might affect their willingness to tolerate the menstrual side effects of contraceptives[8]. Evidence of studies note that children born less than two years after a brother or sister are more than twice as likely to die as a child who is born after a three-year gap. Increasing the use of family planning for healthy timing and spacing of pregnancies, therefore, has the potential to drastically reduce child deaths[9]. In developing countries, the rate of unintended pregnancies is high and the risk of maternal mortality is amplified due to poverty, malnutrition and lack of adequate health care. In developing countries one in six women die during pregnancy or childbirth. So spacing between pregnancies more than two years is very important to reduce maternal and neonate mortality[10]. It was reported the use of contraception increases with parity of woman up to the third or fourth child and then decrease, thereafter. So many women have a desire to space births at early reproductive age and seek to stop after the desired family size has been achieved. Short spaces between births are dangerous for mothers. Women who become pregnant again less than five months after a birth are 2.5 times more likely to die because of a pregnancy related cause than a woman who is able to wait for 18 to 23 months. Birth-to-birth intervals between 36 and 59 months are considered to carry the lowest risk to mother and child. However, more than two-thirds of women who are carrying their second, third, or higher order child give birth in a higher risk category[11]. High rate of women who resort to unsafe abortion is a powerful stay that women need access to a wide range of family planning methods to help them safely control their own fertility and reduce a risk of death, injury, and social or criminal consequences to terminate their pregnancy[12]. Women who distinguish to terminate their unintended pregnancy may resort to unsafe abortion, especially if they face legal barriers to obtaining a safe abortion, as is the case in most of the Arab region. According to WHO, in countries of northern Africa alone, nearly 1 million unsafe abortions were performed in 2008. Complications of these abortions accounted for 12 percent of maternal deaths in that region[13]. Women who become pregnant again less than five months after a birth are 2.5 times more likely to die because of a pregnancy related cause than mother who is able to wait for 18 to 23 months. Mother with shorter intervals between a birth and a subsequent pregnancy is at major risk of premature rupture of the membrane and from infection[11]. Many adolescent women under 18 years, especially in poorer countries, are physically immature, which increases their risk of suffering from obstetric complications. Malnourished young women may not have developed sufficiently for the baby's head to be able to pass safely through the birth canal. This complication can lead to death and disability[14]. One tragic outcome of this complication is obstetric fistula, caused by obstructed labor. In addition, children born to adolescent mothers face higher risks of illness and death than those born to mothers in their 20s. The mortality rate among infants of mothers under age 20 years is at least 35 percent higher than among infants of mothers ages 20 to 29 years[15].

Women's Misconceptions about oral contraceptive pills : The highest mean score(2.79) of study sample had misconceptions regarding items no.(A.24) which refers that contraceptive pills is highly effective rate to prevent unwanted pregnancies. Most items regarding misconception of oral contraceptive pills are within moderate mean score. So Grand mean score was (1.89) which considered moderate mean score regarding misconceptions about oral contraceptive pills as shown in table(3).

Change in mood is one of the most common methods of contraception was oral contraceptive pills so that over 100 million women are using oral contraceptives pills (OCP) worldwide that evidence is more than 84% of women during their life use one of the hormonal methods in order to prevent pregnancy[16]. However, due to side effects almost 50% of new OCP users discontinue using the pills almost six to twelve months after the start. such as mood changes' and depression considered as being the primary reason for OCP discontinue[17].
A study looking at the effect of COC on premenstrual mood found it largely to be unchanged, although in some women it would improve and in others deteriorate. Decreased bone mineral density early in life can be a contributing factor for osteoporosis. Recent experimental studies have shown that progestin's have an effect on bone quality. Young women who start using progesterone-based oral contraceptives have a significant decrease in bone quality. It appears that the loss occurs during the first two years of use due to an increased bone turnover rate[18].

Protect against sexual transmitted diseases women with genital tract infections, including Chlamydia, have increased susceptibility to HIV infection . Oral contraceptive use has consistently been found to be associated with a reduced risk of ovarian cancer. In a1992 analysis of 20 studies, researchers found that the longer a woman used oral contraceptives the more risk of ovarian cancer decreased. Researchers have studied how the amount or type of hormones in oral contraceptives affects ovarian cancer risk. One study, the Cancer and Steroid Hormone (CASH) study, found that the reduction in ovarian cancer risk was the same regardless of the type or amount of estrogen or progestin in the pill .A more recent analysis of data from the CASH study, however, indicated that oral contraceptive formulations with high levels of progestin were associated with a

lower risk of ovarian cancer than formulations with low progestin levels[19]. Using birth control pills (oral contraceptives) lowers the risk of endometrial cancer. The risk is lowest in women who take the pill for a long time, and this protection continues for at least 10 years after a woman stops taking this form of birth control. However, it is important to look at all of the risks and benefits when choosing a contraceptive method Hormonal treatments, such as hormonal contraceptives, are frequently successful at alleviating symptoms associated with polycystic ovary syndrome. Birth control pills are often prescribed to reverse the effects of excessive [androgen] levels, and decrease ovarian hormone production. One of the most widely accepted non contraceptive benefits of oral contraceptive use is the reduction in the development of pelvic inflammatory disease (PID). While many researcher over the past forty years have found an association between oral contraceptive use and reduced rates of PID . Both studies examined breast screening and methods of diagnosis breast cancer in case and control women, and concluded that the increased risks could not be explained by differences in screening or in biopsy rates between oral contraceptive users and non-users, Several analysis have suggested that increased use of combined oral contraceptives can partially explain the decreasing rates of mortality from cancer of the uterine corpus (i.e. excluding those from cervical cancer) seen between 1960 and the 1980s [20]. The birth control pill before or after a pregnancy is confirmed will not abort the fetus. Oral contraceptives don't cause miscarriages because they do not have any effect on a fertilized embryo. Birth control pills generally made of estrogen and progestin (synthetic progesterone) essentially prevent pregnancy by inhibiting ovulation and/or causing the cervical mucus to thicken. It is also unlikely that taking the pill will have no effect on fetal development. If a woman using progestin-only oral contraceptives continues with the pill pack while pregnant, woman can increase the chance of having an ectopic pregnancy. The pill and injection were associated with infertility, cancerous growths, especially following prolonged use. The two methods were also associated with an increased chance of birth defects, especially when one failed to adhere to the pill regimen, or received an expired inject able .Evidence shows that COCs will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while taking COCs or accidentally starts to take COCs when she already pregnant[21]. Many studies in sub-Saharan Africa indicate that the uptake of modern contraceptive services is commonly hindered by fears and misconceptions, that hormonal contraceptives and related menstrual disruption cause cancer[22]. Majority of previous studies that found women who use OCs during early pregnancy have no increased risk for most types of major congenital malformations.Women feared that pills may cause birth defects, such as children born with multiple heads ,lameness, missing or extra eyes, or no skin. Severe side effects are believed to be the result of improper use of pills such as missing pills or receiving the pills from an untrained provider. Oral contraceptives (OCs) can be used to eliminate menstrual cycles for those who suffer from dysmenorrhea. Suppressing the menstrual cycle has the ability to reduce cycle disorders like menorrhagia, dysmenorrhea, and iron deficiency anemia. Oral contraceptives protect against pregnancy by the combined actions of the hormones estrogens and progestin these hormones prevent ovulation. The pills have to be taken every day as directed and do not work after vomiting or diarrhea. Effects of weight (increase weight) the gain in weight is probably due to increased appetite (an effect caused by progestin) and not fluid retention.. Because of changes in sexual desire some women who seek family planning may believe that COCs reduce sexual pleasure or interest in sex (loss of libido) or that they cause frigidity in women. The oral contraceptive pill is the best – known modern method, effective method of contraception's to protect women from unwanted pregnancy when it is used perfectively and the commonest family planning method used among Iraqi women. Only progestin pills are especially suitable for women who are breastfeeding since this type of pills does not affect milk supply and it's quality .In addition using oral contraceptives are religiously accepted in Iraq which is a strong power for using oral contraceptive methods. So most of the items related to misconception are within moderate mean score, Iraqi women need to educate and counseling about all contraceptive methods in order to decrease their misconceptions and reinforcement of their positive and healthy habits.

Conclusions: Based on the study finding that women's misconceptions regarding of oral contraceptive pills is due to lack of knowledge and did not have accurate source of information about the method

 Recommendations: The study improve accurate scientific conceptions about oral contraceptive pill through health education and counseling for women who attending family planning clinic at Primary Health Care Centers . Distribution of brochures to educate them in addition to audiovisual media about how using contraceptive methods in accurate and perfect way which help women to prevent unwanted pregnancy.

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