ISSN-L: 2223-9553, ISSN: 2223-9944
Vol. 4 No. 3 May 2013
Academic Research International

EFFECT OF CONTRACEPTIVES AMONG WOMEN IN BABYLON CITY

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ABSTRACT

Introduction: there are 62 million U.S women in their reproductive age from (15-45) are sexually active use hormonal contraceptive methods and about 222 million women in developing countries avoid pregnancy are not use modern contraceptive methods. Purpose: The study done to identify the effect of contraceptives among women and focus on natural family planning or fertility awareness. Methodology: A descriptive analytic study was conducted to identify the effect of contraceptives and selected non-probability sample from (50) women (17-46) years old who have side effect of contraceptives who attend at child maternity hospital for different causes during the period 1/1/2013-30/2/2013. Questionnaire format used for data collection was designed and constructed after reviewing related literatures and previous studies. Results: the study revealed that the highest percentage 24.4% of study sample their age group (22-26, 27-31) years respectively, 40.4% of the study sample was primary school graduate and 42.5% are overweight with SD. Was 29.9 ± 6.17 and shows that the majority of study sample was (95.7%)for having headache and back pain respectively,(91.5%) for having Psychological disturbance and urinary tract infection, (76.6%) were overweight,(53.2%) having bleeding, (46.8%) having nausea and breast pain, respectively, (42.6%) for hypertension disorder and(27.7%) for unexplained bleeding and there was a statistical significant association between Psychological disturbance, Headache, Back pain, Overweight, Urinary tract infection, High cholesterol, Fibroid, Diabetes mellitus, Elevation of lactic acid hormone, Ovarian cyst, Breast enlargement and Unexplained bleeding with taking contraceptive. Conclusion: It was important to teach women how to use natural family planning to avoid the risk of pharmacological contraceptive and pregnancy.

Keywords: Effect, Contraception, Natural family planning

INTRODUCTION

Contraception is prevention of fertilization of an egg by a sperm (conception) or attachment of the fertilized egg to the lining of the uterus [1]. The world population will increase by 2.5 billion over the next 37 years, passing from the 6.7 billion to 9.2 billion in 2050 and there was limited information about the contraceptive practices [2]. There are 62 million U.S. women in their childbearing (15–44) year. Those who are sexually active and do not want to become pregnant. Couples who do not use any method of contraception have an approximately 85% chance of experiencing a pregnancy over the course of a year. The typical U.S. woman wants only two children. To achieve this goal, she must use contraceptives for three decades and about 222 million women who want to avoid pregnancy in developing countries are not using a modern contraception method [3].

BACKGROUND

Birth control well documented in Mesopotamia and Ancient Egypt. The earliest documents referring to birth control methods is the Kahun Gynecological Papyrus from about 1850 BCE, describe various contraceptive pessaries, including acacia gum, which recent research has

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ISSN-L: 2223-9553, ISSN: 2223-9944
Vol. 4 No. 3 May 2013

confirmed to have spermatocidal qualities and is still used in contraceptive jellies, use the application of gummy substances to cover the external opining of the cervix, a mixture of honey and sodium carbonate applied to the inside of the vagina, and a pessary made from crocodile dung, Lactation (breast-feeding) of up to three years was also used for birth control purposes in ancient Egypt.

Plants with contraceptive properties were used in Ancient Greece from the 7th century BCE onwards and documented by Hippocrates the use of Silphium, a plant well known for its contraceptive and abortifacient properties. The plant only grew on a small strip of land near the coastal city of Cyrene in Libya. by the 1st century BC. Asafoetida, a close relative of siliphion, was also used for its contraceptive properties. Other plants commonly used for birth control in ancient Greece include Queen Anne's lace (Daucus carota), willow, date palm, pomegranate, pennyroyal, artemisia, myrrh, and rue. Some of these plants are toxic and ancient Greek documents specify safe dosages. Recent studies have confirmed the birth control properties of many of these plants, confirming for example that Queen Anne's lace has post coital anti-fertility properties and is still used today for birth control in India.

In the year 388, St. Augustine, Christian writing about periodic abstinence was.until the mid-19th century, when various calendar-based methods were developed. In 1905, Theodoor Hendrik van de Velde, a Dutch gynecologist, showed that women only ovulate once per menstrual cycle. In the 1920s, Kyusaku Ogino, a Japanese gynecologist, and Hermann Knaus, from Austria, working independently, each made the discovery that ovulation occurs about fourteen days before the next menstrual period. Kyusaku Ogino used his discovery to develop a formula for use in aiding infertile women to time intercourse to achieve pregnancy.

In 1930, John Smulders, a Roman Catholic physician from the Netherlands, used Knaus and Ogino's discoveries to create a method for avoiding pregnancy by the official rhythm method promoted over the next several decades. In 1932, a Catholic priest in Germany developed a system for avoiding pregnancy based on basal body temperature. The 1950s Dr. John Billings discovered the relationship between cervical mucus and fertility which that a major advance in fertility awareness knowledge. In 1971, the first Couple to Couple League International organization to teach a symptothermal method (used both mucus and temperature observations). During the following decade, other large Catholic Family of the Americas organizations (1977), teaching the Billings method, and the Pope Paul VI Institute (1985), teaching a new mucus-only system called the Creighton Model. In 1999 the Institute for Reproductive Health at Georgetown University developed the Standard Days Method (SDM), which is more effective than the rhythm method. SDM is promoted by Georgetown University as a form of natural family planning [4].

METHODOLOGY

A descriptive analytic study was conducted to identify the effect of contraceptives and selected non-probability sample from (50) women (17-46) years old who suffer from the effect of contraceptives when attend at child maternity hospital for various maternal reason during the period 1/1/2013-30/2/2013. Questionnaire format used for data collection was designed and constructed after reviewing related literatures and previous studies.

Objective of the study: The study done to identify the effect of contraceptives among women and focus on natural family planning or fertility awareness.

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RESULTS

Table (1). Distribution of the Study Sample according to Demographic Characteristics (n=47)

Demographic Variables	*No.*	*%*
Age group (years)		
17-21	6	12.8
22-26	11	23.4
27-31	11	23.4
32-36	8	17
37-41	6	12.8
42-46	5	10.6
$\bar{x}$=30.4 ± 7.414		
Educational Level		
Illiterate	7	14.9
Primary school graduate	19	40.4
Secondary school graduate	11	23.4
University graduate & Higher education	10	21.3
Body Mass Index		
Normal range = (18.5-24.99) Kg/m2	7	14.7
Over weight = (pre obese)(25-29.99) Kg/m2	20	42.5
Obese class1 = (30-34.99) Kg/m2	10	21
Obese class2 = (35-39.99) Kg/m2	5	10.6
Obese class3 ≥ 40 Kg/m2	5	10.6
$\bar{x}$ =29.9± 6.17		
Smoking		
Yes:	2	4.3
No:	45	95.7

Table (1) shows that the highest percentage age group were (23.4%) of study sample their age group (22-26, 27-31) years respectively, the mean with SD. was 30.4 ± 7.414 years.

Educational Level: (40.4%) of study sample was primary school graduate while the lowest percentage (14.9%) of them was illiterate.

Body Mass Index: The highest percentage was (42.5%) of study sample at overweight while the lowest percentage (7%) of them, their body mass index was within normal range (18.5-24.99 Kg/m2) and the mean with SD. was 29.9±6.17.

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ISSN-L: 2223-9553, ISSN: 2223-9944
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Smoking: (95.7%) of study sample aren't smoker while (4.3%) of study sample are positive smoker.

Table (2). Distribution of the Study Sample according to Symptoms (n=47)

Symptoms.	*Yes*	*%*	*No*	*%*	X^2	*d.f*	*Sig.*
1- Bleeding	25	53.2	22	46.8	.191	1	.662
2- Psychological disturbance	43	91.5	4	8.5	32.362	1	.000
3- Headache	45	95.7	2	4.3	39.340	1	.000
4- Back pain	45	95.7	2	4.3	39.340	1	.000
5- Over weight	36	76.6	11	23.4	13.298	1	.000
6- Nausea	22	46.8	25	53.2	.191	1	.662
7- Urinary tract infection	43	91.5	4	8.5	32.362	1	.000
8- Hypertension disorder	20	42.6	27	57.4	1.043	1	.307
9-High cholesterol	12	25.5	35	74.5	11.255	1	.001
10-Fibroid	14	29.8	33	70.2	7.681	1	.006
11-Diabets mellitus	2	4.3	45	95.7	39.340	1	.000
12- Elevation of lactic acid hormone	5	10.6	42	89.4	29.128	1	.000
13- Ovarian cyst	5	10.6	42	89.4	29.128	1	.000
14- Breast enlargement	11	23.4	36	76.6	13.298	1	.000
15- Breast pain	22	46.8	25	53.2	.191	1	.662
16- Unexplained bleeding	13	27.7	25	53.2	9.383	1	.002

More than one answer from study sample for each disorder. *

Table (2) shows that the majority of study sample was (95.7%)for having headache and back pain respectively, (91.5%) for having Psychological disturbance and urinary tract infection, (76.6%) were overweight, (53.2%) having bleeding, (46.8%) having nausea and breast pain, respectively, (42.6%) for hypertension disorder and (27.7%) for unexplained bleeding and there was a statistical significant association between psychological disturbance, headache, back pain, overweight, urinary tract infection, high cholesterol, fibroid, diabetes mellitus, elevation of lactic acid hormone, ovarian cyst, breast enlargement and unexplained bleeding with taking contraceptive.

DISCUSSION

The present study reveals that the that the highest percentage were (23.4%) of study sample their age group (22-26, 27-31) years respectively, the mean with SD. was 30.4 ± 7.414 years. A previous study shows that an individual's contraceptive choice depends not only on individual characteristics, including ethnicity, age, education level, household registration, region, number of living children and sex of the last living child, but also on the strength of family planning policies [5].

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Educational Level: (40.4%) of study sample was primary school graduate while the lowest percentage (14.9%) of them was illiterate. A study used a logistic regression model, it was found that women's level of education, and their husbands' level of education and previous experience with contraceptive methods were the most significant factors influencing contraceptive use [6]. Also a study stated that literacy status of female exerted a strong influence on contraceptive acceptance [7].

Body Mass Index: The highest percentage was (42.5%) of study sample at overweight while the lowest percentage (7%) of them, their body mass index was within normal range (18.5-24.99 Kg/m2) and the mean with SD. was 29.9±6.17. Previous study revealed that overweight and obese women may be at increased risk for oral contraceptive failure [8].

Hiraoka and et al., stated that most contraceptives are not associated with weight gain and may be a subset of adolescents who are susceptible to weight gain with depot medroxyprogesterone acetate (DMPA) [9]. Massai and et al. stated that in healthy pre-menopausal women, 2 years of contraceptive ring use produced no changes in BMI [10].

Smoking: (95.7%) of study sample aren't smoker while (4.3%) of study sample are positive smoker. Table 2 shows that the majority of study sample was (95.7%)for having headache and back pain respectively, (91.5%) for having Psychological disturbance and urinary tract infection, (76.6%) were overweight, (53.2%) having bleeding, (46.8%) having nausea and breast pain, respectively, (42.6%) for hypertension disorder and (27.7%) for unexplained bleeding and there was a statistical significant association between psychological disturbance, headache, back pain, overweight, urinary tract infection, high cholesterol, fibroid, diabetes mellitus, elevation of lactic acid hormone, ovarian cyst, breast enlargement and unexplained bleeding with taking contraceptive. The relative risk of thrombotic disease was seen to increase with oral contraceptive use. The risk of arterial disease [11]. A study assesses the effects of oral contraceptives and cigarette smoking on incidence of venous and arterial thromboembolic disease among women at age 20-50 years. Several studies suggested demonstrated that the relative risk of venous thrombosis in users of these oral contraceptives was much higher than the risk of second generation progestins (levonorgestrel, norgestrel) [12]. The great majority of levonorgestrel implant users experience menstrual problems, but serious bleeding problems are not more frequent than in controls. Other health problems reported more frequently by levonogestrel implant users than by women not using hormonal contraception in a study of 16 000 women included skin conditions, headache, upper limb neuropathies, dizziness, nervousness, malaise, minor visual disturbances, respiratory conditions, arthropathies, weight change, anxiety and non-clinical depression[13].

Some side effects with oral contraceptives Depression or other emotional changes , Migraines, Breast lumps , Heavy vaginal bleeding between periods (light bleeding or spotting is normal) , High blood pressure (hypertension) High cholesterol . Signs of a blood clot, Signs of a stroke, Signs of liver damage and Signs of an allergic reaction. Many of these serious side effects can be attributed to the estrogen content of oral contraceptives. Progestin-only pills [14].

The non-contraceptive health benefits of modern methods should be well emphasized. Since informal sources are prevalent, the effectiveness of peer education should be studied in this community [15].

In May 2011, leading authority Anne Szarewski told a meeting of GPs that being overweight is 'the single most significant risk factor' for thrombosis on the Pill. She said that Pill-taking women whose body mass index (BMI) is 30 or more had almost 24 times the average risk of thrombosis, headaches , nausea, breast tenderness, slight weight gain, slight 'spotting' of

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ISSN-L: 2223-9553, ISSN: 2223-9944
Vol. 4 No. 3 May 2013

blood between the periods [16]. Deep vein thrombosis (DVT) or clotting (this is now thought to be slightly more common in women who are taking Pills containing the progestogens desogestrel and gestodene). The risk is known to be greater in the first year of taking the Pill. But it also increases a little as women get older, after the age of 35 [17]. When women get to the age of 35 or 40, the chances of having a thrombosis (clot) are starting to increase. The Pill can increase the risk of some cancers and reduce the risk of others. In September 2011, the respected US health watchdog called the Food and Drug Administration (FDA) warned that there might be an increased risk of blood clots with Pill brands that contain drospirenone. Weight Gain: Long-acting injectable depot medroxyprogesterone acetate (Depo-Provera) is the only hormonal contraceptive that is consistently associated with weight gain. Headache: Combined oral contraceptives increases the risk of stroke in women who have migraines with headaches are more common during the first cycle of combined oral contraceptives and in women who are older than 35 years. Breast Tenderness: Breast tenderness is more common in women who use the norelgestromin/ethinyl estradiol contraceptive patch (Ortho Evra) than in those who use combined oral contraceptives. Bleeding: is common in the first months of combined oral contraceptive use. Women who use etonogestrel implantable device (Implanon) should expect changes in their menstrual cycle. A study found that Depo - Provera was associated with a slightly increased rate of depression. Skin Changes:Acne can develop or worsen with the use of progestin only cotraceptives. Nausea: contraceptives cause nausea and vomiting when uses a combination of ethinyl estradiol and levonorgestrel. Decreased Breast Milk: Combined oral contraceptives should not be used for the first six weeks postpartum because of increased risk of hypercoagulability [18].

Many factors influence the use of contraceptive methods. Policy-makers and health-service providers must assess additional factors, such as the accessibility and quality of contraceptive services, counseling from physicians, and the social culture [19].

Natural birth control includes behavioral methods of specific actions that people can do naturally to help prevent an unintended pregnancy. These are some of the oldest forms of contraception available. Natural family planning often does not cost anything and usually has no side effects [20]. There are three main types of NFP: the symptoms-based methods(symptoms-based methods rely on biological signs of fertility), the calendar-based methods, and the breastfeeding or lactation amenorrhea method (LAM) is a method of avoiding pregnancy based on the natural postpartum infertility that occurs when a woman is amenorrhea and fully breastfeeding. Natural family planning (NFP) or fertility awareness is a natural birth control method as well as an approach to use when trying to become pregnant. Natural family planning contraceptive methods do not require medication, physical devices, or surgery to prevent pregnancy. Natural family planning relies on a woman's fertility awareness of her body's natural functioning to determine the timing of her ovulation and her fertile period. Natural family planning methods include monitoring and tracking certain changes that occur in a woman's body in order to try to predict her most fertile time. Use of NFP in developed countries is low, even among Catholics. While Catholics made up 24% of the U.S. population in 2002, of reproductive age American women using birth control, only 1.5% was using periodic abstinence [21]. The majority (74%) found it beneficial, often resulting in stronger bonds, better communication, and improved knowledge [20]. Five benefits of natural family planning for marriage are a stronger bond, open communication, mutual decision making, raises appreciation of intimacy, and marriage insurance. The advantages of natural methods of family planning are:

1. The method is totally natural and does not involve chemicals
2. It can be used to assist or prevent pregnancy

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3. Encourages shared responsibility by the woman and her spouse, which can enhance the relationship
4. Enables a couple to be independent and in control of their fertility.
5. Does not rely on regular cycles.
6. Can be used at all stages of reproductive life.
7. Is up to 98% effective against pregnancy, when used by motivated couples and taught by experienced teachers.
8. It is inexpensive, convenient and is free of all side effects [21].

RECOMMENDATIONS

1. A need to intensify information, education and communication activities and motivate the population to practice natural family planning.
2. A need to educational programmes on natural family planning.

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