

# Women Awareness about Induced Ovulation Drugs (Clomid)

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## Abstract

A descriptive analytical study was carried to assess the level of awareness among women taking induced ovulation drugs (clomid), a purposive sample of (100) women suffer from one types of infertility and taking clomid, who attended at AL- Zharra Maternity and Pediatric Teaching Hospital (out patient clinic), and As-Sader Teaching Hospital (Center for Infertility) for the period 1st of march to end of November 2010. The data was collected through interview of study samples questionnaire format was designed that consisted of three parts demographic variables, reproductive variables and variables related to induced ovulation drugs (Clomid). Descriptive and inferential statistical procedures were used to analyze the data, the results of the study revealed that the highest percentage (50%) of woman their age were range between (20-35) years and the highest percentage (70%) of them graduated from primary school and less most of them were house wives and most of women take (Clomid) without investigation or taking U/S and most common type of side effect of this drugs headache, nausea & vomiting, weight gain, breast tenderness and enlargement the study concluded that most of women were not aware about used and side effect of this drugs so the study recommended that emphasis on doctors to made investigation for hormones & U/S before giving this drugs and the nurses must take their roles in education about induced ovulation drugs and counseling for reducing the incidence of complication that lead to negatives result and prevent pregnancy.

**Keywords:** Ovulation Drugs, Clomid, Hormones, Women Awareness, Iraq.

## 1. Introduction

One in every six couples of child bearing age has an infertility problem, there is a female problem in (35) of the cases a male problem in (35) of the cases combined problem of the couple in (20%) of cases there it is essential that the man and the women be evaluated during an infertility work-up in (10%) of cases the problem is unexplained meaning that all testing is normal (Bhattacharya, 2012).

Conventional medical advice is to seek treatment if you have been trying to conceive for at least one year (American College of Obstetrical and Gynecologists, 2008). Ovulation induction drugs is a type of medical therapy often performed alongside certain fertility treatment (Fritz, 2008).

There are a number of fertility drugs and hormones on the market that have shown varying degrees of success's of the most common pharmaceutical would include bromocriptine, metrodin, clomphone citrate, progesterone, human chorionic gonadotropin, ...etc, various medication are used depending on the primary cause of infertility because have many side effects only your physician can prescribe and or administer these substance so the first step would be to consult a specialist, so careful attention should be given to the selection for medication that induced ovulation (Sande, 2004), pelvic examination is necessary, laboratory, and medical tests, e.g. (hormone levels), ultrasound should be performed regularly to monitor your progress or check for side effect (Schoener and krysa, 2009).

The therapeutic objective should be balanced with potential risks and discussed with the patient and others involved in the achievement pregnancy (Pathology of female infertility, 2004). So the fertility nurse provides support services to couples who are experiencing infertility we empower infertility patient by giving them the knowledge and confidence they need to take control of their fertility treatments we bring clarity, hope and peace (Franks and Gilling, 2006).

## 2. Methodology

### 2.1. The Study Objectives

This study aims to achieve the following objectives:

- a. To evaluate the level of awareness among women taking induced ovulation drugs (clomid).
- b. To identify the demographic and reproductive characteristics of the study sample.

### 2.2. The Study Question

This study concentrates on the following question:

What the awareness level of the women regarding induced ovulation drugs (Clomid)?

### **3. Method and Procedures**

#### **3.1. The Study Design & Setting**

Descriptive and analytic study was conducted in this study to evaluate the level of awareness among women taking of fertility treatment. The study was conducted for the period 1st of March to end of November 2010.

This study was carried out at AL-Zharia Maternity and Pediatric Teaching Hospital (out patient clinic), and AL-Sader Teaching Hospital (Center for Infertility) in An-Najaf city.

#### **3.2. The Study Administrative Arrangement**

Prior to actual collection of data, formal administrative approval was obtained to conduct the study from the ministry of health and permission was obtained from the director of the AL-Zharia Maternity and Pediatric Teaching Hospital (out patient clinic), and AL-Sadder Teaching Hospital (Center for Infertility) in An-Najaf city. In addition to the researcher was explained the aim and natural of study to the women to participate in this study or not.

#### **3.3. The Sampling & Study Sample**

A Non probability sampling technique was used, a purposive sample of (100) women taking of fertility treatment study sample were selected according to these criteria:

- a. Married women who had primary or secondary infertility.
- b. Exclusion criteria women who suffer from other disease needed ovulation drugs such as polycystic ovarian syndrome.

#### **3.4. The Study Tools & Data collection**

Tools used for data collection by using an interview questionnaire form, and the questionnaire form consisted of the following parts:

- a. The demographic variables such as age of women, level of education, occupation status.
- b. The reproductive variables such as age at marriage, gravidity, parity, type of infertility.
- c. The variables related to women awareness induced ovulation drugs (clomid), the researcher has designed these tools after a thorough review of relevant literature in the field of maternity and reproductive disorder in woman it contained of (13) items related to women awareness a bout induced ovulation drugs (clomid), and used likert scale it scoring as follows (Yes = 3, Uncertain = 2, and No = 1). Cut-off point used for determination of the awareness level, cut-off point =  $(3+2+1 / 3) = 2$ , score of cut-off point 2.

##### **3.4.1. The Pilot study**

A pilot study was performed after the researcher has official permission form the ministry of health it carried out in January 2010, on (30) women in order to test the content validity of the questionnaire items and clarity of questions in addition to estimate the time needed to collection data, the pilot study result revealed that the items of the questionnaire were clear and applicable and the times required for each interview ranged from (20-30) minutes for each women, the sample of pilot study was excluded from total sample.

##### **3.4.2. The Validity and Reliability**

**a. The Validity:** It refer that the degree to which an instrument measures and what it is intended to measure (Polite and Hungler, 2008). To make the instrument more valid the researcher reviewed by panel of experts in different fields of nursing, medical, and statistical, all expert reviewed the questionnaire and certain modification was done for some items of awareness to be more acceptable.

**b. The Reliability:** It is a major assessing instrument quality and adequacy the reliability of the tools criterion was assessed through measuring its internal consistency by determining Cronbch alpha coefficient, and coefficient reliability for women awareness was (0.75) these result revealed that the instrument is internally consistent.

#### **3.5. The Study Limitations**

- a. Some women refused to participate in this study because it feel a shame.
- b. Some women missed information about previous obstetric history so they were dropped from the sample.

#### **3.6. The Statistical analysis**

The statistical analysis of data done by using **Excel program** and Statistical Package for Social Science (**SPSS**), and depend on the descriptive statistics which include (frequent, percentage, and mean of scores), and used Chi Square ( $\chi^2$ ) Test.

### **4. The Results and Discussion**

Clomid is the most well-known fertility drugs, probably because it is the most commonly used, and with good reason, about (25%) of female factor infertility involves a problem with ovulation, and clomid as fertility drugs is easy to use taken as pill not an injection and effective in stimulating ovulation (80%) of the time (Hirsch,

2009).

#### 4.1. The Description of the Demographic & Reproductive characteristics

The describe of the demographic and reproductive characteristics of the study samples is shown in Table (1), as follows:

**Table 1. Demographic & Reproductive characteristics of the study sample**

Demographic characteristics			Reproductive characteristics		
Age / years	No.	%	Age at marriage	No.	%
Less than 20 yr	10	10%	Less than 20 yr	20	20%
20- 35 yr	50	50%	20- 35 yr	50	50%
35 yr and more	40	40%	35 yr and more	30	30%
Level of education	No.	%	Type of infertility	No.	%
Primary & less	70	70%	Primary	70	70%
Graduate of secondary school	20	20%	Secondary	30	30%
University & above	10	10%	-	-	-
Occupation	No.	%	Parity	No.	%
House wife	60	60%	Non	70	70%
Employed	40	40%	1-2	30	30%
<b>Total</b>	<b>100</b>	<b>100%</b>	<b>Total</b>	<b>100</b>	<b>100%</b>

The results in Table (1), shows that:

1. The highest percentage is (50%) of women age range between (20-35) years, this result were supported by (Abdul latif, 2012), who mentioned that approximately (10%) to (15%) of couples of childbearing age are infertile factors that cause infertility are almost equally divided between men and women in approximately (35%) of these couples there are multiple etiologies also the reproductive system is especially vulnerable to the effect of the environment especially in Iraqi due to exposure to three war this contributed to increased infertility because of air pollution by chemical materials, and they were mostly (70%) of them are primary school and less it means that the women at low level of education, level of education is considered a vital and urgent factor increased awareness about induced ovulation drugs when she used (AL-Baroodi, 1998), and (60%) of the women are house wives, it means that more than half of women were house wife, several studies have demonstrated that the reproductive experience of working women as a group is better than non working (Ahlborg, 2008).
2. The highest percentage is (50%) of women age at marriage range between (20-34) years the result of this study are consistent with Islamic law that favors marriage at puberty and in societies where girls. conception and later the birth of a healthy child is a significant life event to most women motherhood is the expression of their nurturing gender role and their femininity and to most men the siring of a child is a visible demonstration of their masculinity and potency for most couples, parenthood is an expression of their love for each other in addition to society regard infertility as an illness (Hirsch, 2009), and they were mostly (70%) of women suffer from primary infertility, this indicate that more than half of women non pregnant because most study sample suffer from primary infertility in addition to the desire to give birth to nurture an infant and to experience parenthood is a basic human need delayed child bearing may have and adverse effected on fertility as progressive decline infertility is noted after age (35) years in the women and man (Kennedy, 2006), and (70%) of the women majority are non parity.

#### 4.2. Distribution of the study sample according to use the infertility drugs

The following Table (2), refers to the distribution of the study sample according to use the infertility drugs. In order to explain the distribution was used Chi Square ( $\chi^2$ ) Test, as follows (Touama, 2011):

**Table 2. Distribution of the study sample according to use the infertility drugs**

Methods	No.	%	df.	Chi Square ( $\chi^2$ )	P- Value	Result
With counseling	90	90%	1	64	0.000**	S
Without counseling	10	10 %				

The results in Table (2), indicates to the highest percentage is (90%) of the women used infertility drugs with counseling a **significant relation** were found with used of infertility drugs. Which was supported by the calculated (P-value) for Chi-Square ( $\chi^2$ ) value, such that the value (0.000) is less than the significance level ( $\alpha = 0.05$ ).

#### 4.3. Distribution of the study sample according to the laboratory test

The following Table (3), refers to the distribution of the study sample according to the laboratory test. In order to explain the distribution was used Chi Square ( $\chi^2$ ) test, as follows:

**Table 3. Distribution of the study sample according to use the laboratory test**

Laboratory Test	No.	%	df.	Chi Square ( $\chi^2$ )	P- Value	Result
yes	40	44.4%	1	1.44	0.271	NS
No	50	55.6%				

The results in Table (3), indicates to the highest percentage (55.6%) of women used infertility drugs without hormonal test in spite of counseling doctor mention above **no significant relation** was presented for laboratory test. Which was supported by the calculated (P-value) for Chi-Square ( $\chi^2$ ) value, such that the value (0.271) is more than the significance level ( $\alpha = 0.05$ ).

In light of the above results in Table (2 and 3), shows that majority of women taking drugs with counseling that is good for women but the worse of that the dr give drugs without investigation for hormonal level or U/S that is lead to majority of women suffer from side effect from this drugs mention in table (4), several studies have revealed that a general physical examination, including pelvic examination is made to exclude any current disease the pelvic examination is performed to detect any gross abnormalities of the genital tract such as uterine myomata, ovarian tumors and endometriosis also laboratory test should be ordered include full blood examination including test for syphilis, rubella and HIV infection and urine analysis also hormonal level such as progesterone, estrogen, prolactin, and others investigation made to women if have an ovulation or infrequent ovulation or tubal damage and cervical mucus hostility also made hysterosalpingo gram or laparoscopy (Hirsch, 2009).

#### 4.4. The characteristics of the side effect on the study sample

The characteristics of the side effect on the study sample frequency and percentage is shown in Table (4), as follows

**Table 4. The characteristics of the side effect on the study sample frequency (\*)**

Characteristics of Side Effect	Number of women	%
Breast enlargement	75	75%
Hot flash	66	66%
Headache	50	50%
Nausea vomiting	50	50%
Weight gain	46	46%
Blurred vision	39	39%
Urinary frequent	36	36%
Vaginal bleeding	28	28%
Ovarian cyst	25	25%
Multiple birth	15	15%
Still birth	15	15%

(\*) **More than one effect may be given by study sample.**

The results in Table (4), shows that many side effect that women who take induced ovulation treatment (clomid) suffer from it the most common side effect are breast enlargement, hot flash, headache, nausea vomiting, weight gain, blurred vision, urinary frequent, bleeding and others, more than one effect may be given by study samples, and (10%) chance of having twins, and endometriosis, ovarian cyst, tubal pregnancy and uterine hemorrhage (Ahlborg, 2008).

#### 4.5. The Results Related to the Study Question

##### What the awareness level of the women regarding induced ovulation drugs (Clomid)?

To answer the study question, it has been calculated the means and standard deviations to estimate the study sample responses about the awareness level of the women regarding induced ovulation drugs (clomid). Table (5), refers to the results of means and standard deviations of the study sample responses about the awareness level of the women regarding induced ovulation drugs (clomid).

**Table 5. Means and standard deviations for the awareness level of the women regarding induced ovulation drugs**

No.	Items	Yes	Uncertain	No	Mean	Std.	Rank
1	Before used drugs monitoring by U/S and level of hormone.	22	45	33	1.89	0.74	5
2	Tell dr about medication used smoking and stress.	25	10	65	1.60	0.86	9
3	Made thyroid function test.	75	15	10	2.65	0.65	1
4	Cervical mucus & body temperature is necessary to assess ovulation.	15	20	65	1.50	0.75	10
5	Keep drugs in closed container protected from heat, light, and moisture.	8	20	72	1.36	0.63	12
6	during used avoid hazard activity such as driving.	7	16	77	1.30	0.59	13
7	Rick increased with higher dose.	20	35	45	1.75	0.77	6
8	Multiple birth with this drugs.	55	25	20	2.35	0.79	2
9	Ovulation occurs after the first course of therapy.	46	17	37	2.09	0.91	3
10	Stop drugs if abdominal pain accurse.	41	17	42	1.99	0.92	4
11	The couple need to learn how to coordinate the time of sexual intercourse with time of ovulation.	25	19	56	1.69	0.85	7
12	The women need to know sigh and symptoms of ovulation.	18	12	70	1.48	0.78	11
13	Used U/S testing is frequently used it performed in conjunction with treatment.	27	13	60	1.67	0.81	8

The results in Table (5), shows that the awareness among women regarding induced ovulation drugs (clomid), it indicate that the **highest mean** regarding items (3, 8, 9) with means (2.65, 2.35, and 2.09) respectively. While the **lowest mean** regarding the items (1, 2, 4, 5, 6, 7, 10, 11, 12, and 13), it means that the women had not aware about these items and the education of the women regarding (clomid) should be considered an integral part of their management (Fritz, 2008).

The result was delightful about awareness of the women related to items (3, 8, and 9) .the plane of therapy with clomid should be out lined in advance impediments to achieving the goal of therapy must be excluded or adequately treated before beginning (clomid) the therapeutic objective should be balanced with potential risks and discussed with the patient and others involved in the achievement of pregnancy, the approach for treatment is based on the diagnosis, planning treatment for the infertile couple involves helping the partners view the diagnosis and intervention realistically (AL-Baroodi, 1998), the nurse remains a strong advocate, providing information about the risks and benefits of each treatment plan, helping the partners view their chances for a take home baby in a realistic framework is essential for decision-making efforts (Stanhope and Lancaster, 2006).

## 5. The Conclusions and Recommendations

### 5.1. The Conclusions

Based on the study results, the researcher arrived at the following conclusion:

- The women were have not sufficient awareness and knowledge about side effect of (clomid), and used it because of most of the study sample graduated from primary and less, and house wife.
- The majority of women taking (clomid) with counseling of dr this is good point but the role of dr is negative that prescribe (clomid) without investigation or U/S.
- The results of the Chi Square ( $\chi^2$ ) test, indicates to the highest percentage of the women used infertility drugs with counseling a significant relation were found with used of infertility drugs.

### 5.2. The Recommendations

Depend on the study conclusions, the researcher arrived at the following recommendations:

- Adequate knowledge regarding (clomid) helps women to aware about this disadvantage of drugs, and taken drugs according to physician order.
- Provide infertility center by published materials about infertility and treatment to enhance mother's knowledge and practices
- Physician, pharmacologist and nurse should not provide (clomid) without laboratory test or U/S.

- d. Improve health personal knowledge specifically nurses to take their teaching, giving advice and psychological support and instructions through visit couples to center of infertility.
- e. Further studies should be done with a large sample and other variables.

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