Patterns of Contraceptives Use and Their Complications in Iraqi Reproductive Age Women

Shiren Ali Al-Hamzawi1, Sahar Hamza Ali Al-Tameemi2

1Department of Obstetrics and Gynaecology, Al-Diwaniya Health Directorate, Iraq
2Al-Taleelah Primary Health Care Centre, Al-Diwaniya Health Directorate, Iraq

Article History:
Received on: 24 Nov 2019
Revised on: 11 Dec 2019
Accepted on: 16 Dec 2019

Keywords:
Oral pills,
IUP,
Contraceptives,
Iraq

ABSTRACT
Contraceptives are the methods, medicines, or devices which are used to prevent pregnancy. The women can select any kind from the available contraceptives. The objectives are to investigate the types of contraceptive methods used by Iraqi women of reproductive age and to throw lights on their complications. A cross-sectional study had been done in the outpatient department of gynecology and obstetrics of Maternity and Children Hospital in Al-Diwaniya city on 400 women of reproductive age between (16-45) years during the period from 20th of September 2016 to 30th of March 2017. A questionnaire distributed among participating women. All the involved women gave their informed consent after describing the aim of the study and ensuring the confidentiality of the data. The data were gathered and analyzed statistically. The study revealed that the most commonly used contraceptives were oral pills, the intrauterine device (IUD), injections, and the condom (53.7%, 35.7%, 7.5%, 3%), respectively. Oral pills are the most commonly used method in all age groups. The complications were present in (55.0%) of women of reproductive age, and they were present in (69.2%) of users of the Intra-Uterine Device followed by pills users (45.5%). The most common complications for the oral contraceptives were pain, malaise, and psychiatric disturbances (21.8%, 10.6%, 8.3%), respectively, while in the case of Intra-Uterine Device, the most common complications were bleeding and infection (31.4%, 21.6%) respectively. Injection contraceptive users had suffered from the infection (14.3%). The women's age, residence, level of education, occupation, and economic status show a significant association with the use of contraceptives methods. The oral contraceptive pills and Intra-Uterine Device are the most frequently used contraceptives. The most common complaints were bleeding, infection, and pain. There is a significant association between the use of contraceptives methods and the women's age, residence, level of education, occupation, and economic status.

INTRODUCTION
The contraceptives are any medicine, device, or methods that are used to prevent pregnancy. The women can select any kind from the available contraceptives. Some contraceptives are working more than others at preventing pregnancy. There are no best means of contraceptives for each woman. The
contraceptive that is desirable for the woman relies on numerous things and may alter with time. The kind of contraceptives which are used by women depends on their health, or their desire to have children now or in future, and their need for preventing the occurrence of sexually transmitted infections (Curtis et al., 2016a).

Many factors need to be considered individually by a woman, man, or couple when choosing the most appropriate contraceptive method. Some of these factors include effectiveness, safety, availability and acceptability. Though most contraceptive methods are safe for use by most women, the United States Medical Eligibility Criteria for contraceptives use provides recommendations on the safety of particular contraceptive methods for women with certain characteristics and medical conditions (Curtis et al., 2016b).

Variations in availability, accessibility, and acceptability of the range of contraceptive technologies may mean that not all methods are preferred at the same time. There is an increasing importance of monitoring trends, and determinants of method choice like family planning and reproductive health programs must adjust to meet users changing needs and preferences (Leite and Gupta, 2007). Service quality and access are important factors for contraceptive acceptance and continuation (de O et al., 2009).

Many different factors influence the ability of a woman to start a successful, continuous and appropriate contraceptive method; e.g., access to the community, cultural attitudes, health care, and personal attitude can all be considered as obstacles to applying correct use and efficient method of the women to family planning objectives (Singh et al., 2009). The contraceptive methods that are accessible include methods that are short or long-acting, reversible or permanent method, non-hormonal or hormonal type, and for use by women or men (WHO, 1993).

Objectives
The objectives are to investigate the pattern of contraceptives uses among Iraqi women of reproductive age and to throw lights on their complications.

MATERIALS AND METHODS

A cross-sectional study has been performed on 400 women of reproductive age (16-45) years during the period between 20th of September 2016 -30th of March 2017. The study carried out in the outpatient department of gynecology and obstetrics of Maternity and Children Teaching hospitals in Al-Diwaniya city, which is the central hospital that serves psychiatric and obstetric cases. The interview conducted face-to-face with the participating women. Data were gathered by a direct interview using a questionnaire, including information concerning demographic characteristics (age, the level of education, and occupation, residence, economic status), the type of contraceptives, the presence of any complaints, and the presence of chronic disease. Data were gathered and analyzed statistically. All the involved women gave their informed consent after describing the aim of the study and ensuring their confidentiality. The P-value of ≥0.05 has statistical significance.

RESULTS AND DISCUSSION

The following tables show the results of this study. Table 1 shows socio-demographic variables of participating women, most of them were: from the urban area, homemakers, poor economic status, and of secondary school graduates (62%, 45.7%, 41.5%, 35. %) respectively.

Table 2 shows that the most commonly used contraceptives were oral pills, the intrauterine device (IUD), injections, and the condom (53.7%, 35.7%, 7.5%, 3%), respectively. Oral pills are the most commonly used method in all age groups. The age group (20-29) accounts for the higher rate for IUD users (38.0%). Concerning residence, pills and IUD were more common in urban (45.0%, 37.5%) respectively than rural (38.7%, 30.0%) respectively. Most women with secondary school education were using pills (47.9%), while women of higher education (53.2%) used IUD most commonly.

Table 3 shows that (55.0%) of women were suffering from complications. The women who were users of the IUD, injection contraceptives, contraceptive pills and condoms had complications of (69.2%, 60.0%, 45. 5%, 16.6%), respectively. The result is considered statistically significant, P < 0.01.

Table 4 shows that pain (21.8%) whether in the form of a headache or vague abdominal pain or a backache was the most common complication of the users of the oral contraceptive, followed by malaise (10.6%) and psychiatric disturbances (8.3%) in the form of anxiety and depressed mood.

Bleeding and infection (31.4%, 21.6%) respectively, were the most common complications of the IUD users. Women using injection contraceptives were suffering from bleeding and amenorrhea (43.3%, 16.6%), respectively, while those using the condom were suffering from infection (14.3%).

Table 5 shows a relationship between the type of complications and type of contraceptives. As the
percentages appeared different between the groups shown in the Table 5.

There is no particular way of contraception which is suitable for all women. Each method of contraception has benefits and disadvantages. The method which is most commonly used worldwide is the oral pills. A decrease in its use was noticed in the developed countries due to health concerns, especially the hazards of cardiovascular diseases (Spinelli et al., 1993). These hazards are encountered in women of less than (35) years of age, but for older age groups, this is not so (Pitsavos et al., 2000).

The present study showed that women of reproductive age had used the oral pills more than other methods, including women of the ages (35-45) years, although this approach is not considered safe contraceptives for this age group in particular with the presence of hypertension. The striking feature is the decreasing frequency of oral pills users with age, and the possible explanation is older women are more likely to have medical conditions that are contraindications for oral pills use. This result is consistent with other research, but it is inconsistent with the survey of the Iraqi Ministry of Health on Family Planning, which showed that women were using IUD more than other contraceptives (Wolfram and Widhalm, 1990). (21.8%) of the oral pills, users were complaining of pain, whether in the form of backache or a headache.

The Intra-uterine device is a safe and reversible method of contraception; it is characterized by the ease of use, high efficacy, no need for the daily reminder and no interference with the sexual relationship. The most frequent method of contraceptives in the age group 20-29 years was IUD constituting (38%). Irregular bleeding, infection, and pain are the most common complaint by women users, and these are expected side effects of IUD, and this is consistent with another study (WHO, 1994).

The injectable contraceptives had caused mostly irregular bleeding and amenorrhea, and both these conditions are usual side effects of injectable contraceptives (Hatcher et al., 1997). The present study revealed that women of repro-

### Table 1: Socio-demographic characteristics of participating women

|                          | Frequency | percent |
|--------------------------|-----------|---------|
| Age                      |           |         |
| < 20 year                | 40        | 10.0    |
| 20–29                    | 205       | 51.2    |
| 30–39                    | 110       | 27.5    |
| 40–49                    | 45        | 11.2    |
| Residence                |           |         |
| Urban                    | 255       | 63.7    |
| Rural                    | 145       | 36.2    |
| Level of education       |           |         |
| Illiterate               | 60        | 15      |
| Primary                  | 115       | 28.7    |
| Secondary                | 148       | 37      |
| Higher                   | 77        | 19.2    |
| Occupation               |           |         |
| Homemakers               | 183       | 45.7    |
| Profession               | 167       | 41.7    |
| Others                   | 50        | 12.5    |
| Economic status          |           |         |
| Poor                     | 166       | 41.5    |
| Middle                   | 150       | 37.5    |
| Rich                     | 84        | 21      |
### Table 2: Association between socio-demographic characteristics and contraceptives methods

| Age         | Oral       | IUD        | Injectable hormones | Condom    | Total % | P value |
|-------------|------------|------------|---------------------|-----------|---------|---------|
| < 20 year   | 27(67.5%)  | 6(15.0%)   | 4(10.0%)            | 3(7.5%)   | 40(10.0)| <0.000  |
| 20–29       | 112(54.6%) | 78(38.0%)  | 11(5.3%)            | 4(1.9%)   | 205(51.2)|         |
| 30–39       | 60(54.5%)  | 40(36.3%)  | 8(7.2%)             | 2(1.8%)   | 110(27.5)|         |
| 40–49       | 16(33.4%)  | 19(42.4%)  | 7(15.5%)            | 3(6.6%)   | 45(11.2) |         |
| Total       | 215(53.7)  | 143(35.7)  | 30(7.5)             | 12(3)     | 400(100)|         |

| Residence   | Oral       | IUD        | Injectable hormones | Condom    | Total % | P value |
|-------------|------------|------------|---------------------|-----------|---------|---------|
| Urban       | 117(45.0%) | 73(37.5%)  | 26(10.0%)           | 39(15.9%) | 255(63.7)| 0.000   |
| Rural       | 54(38.7%)  | 58(30.0%)  | 17(12.2%)           | 16(11.5%) | 145(36.2)|         |
| Total       | 171(42.7)  | 131(32.7)  | 43(10.7)            | 55(13.7)  | 400(100)|         |

| Level of education | Oral       | IUD        | Injectable hormones | Condom    | Total % | P value |
|--------------------|------------|------------|---------------------|-----------|---------|---------|
| Illiterate         | 18(30.0%)  | 26(43.3%)  | 6(10.0%)            | 10(16.6%) | 60(15.0)|         |
| Primary            | 50(43.4%)  | 28(24.3%)  | 20(17.3%)           | 17(14.7%) | 115(28.7)|         |
| Secondary          | 71(47.9%)  | 46(31.0%)  | 15(10.1%)           | 16(10.8%) | 148(37.0)|         |
| Higher education   | 29(37.6%)  | 41(53.2%)  | 4(5.1%)             | 3(3.8%)   | 77(19.2)|         |
| Total              | 168(42.0)  | 141(35.2)  | 45(11.2)            | 46(11.5)  | 400(100)|         |

| Occupation         | Oral       | IUD        | Injectable hormones | Condom    | Total % | P value |
|--------------------|------------|------------|---------------------|-----------|---------|---------|
| Homemakers         | 87(47.5%)  | 70(38.2%)  | 14(7.6%)            | 12(6.5%)  | 183(45.7)| <0.01  |
| Profession         | 70(41.9%)  | 48(28.7%)  | 17(10.1%)           | 32(19.1%) | 167(41.7)|         |
| Others             | 25(50.0%)  | 14(28.0%)  | 4(8.0%)             | 7(14.0%)  | 50(12.5)|         |
| Total              | 182(45.5)  | 132(33.0)  | 35(8.7)             | 51(12.7)  | 400(100)|         |

| Economic status    | Oral       | IUD        | Injectable hormones | Condom    | Total % | P value |
|--------------------|------------|------------|---------------------|-----------|---------|---------|
| Poor               | 84(50.6%)  | 37(22.2%)  | 14(8.4%)            | 31(18.6%) | 166(41.5)| <0.043 |
| Middle             | 60(40.0%)  | 51(34.0%)  | 17(11.3%)           | 22(14.6%) | 150(37.5)|         |
| Rich               | 33(39.2%)  | 32(38.0%)  | 11(13.0%)           | 8(9.5%)   | 84(21.0)|         |
| Total              | 177(44.2)  | 120(30.0)  | 42(10.5)            | 61(15.2)  | 400(100)|         |

### Table 3: Frequency of the complications among participating women

| Complications | Frequency | percentage |
|---------------|-----------|------------|
| with complications | 220 | 55.0 |
| without complications | 180 | 45.0 |
| Total          | 400       | 100        |
Table 4: Types of contraceptives and the complications

| Type of contraception | Without complications % | With complications % | Total |
|------------------------|--------------------------|-----------------------|-------|
| Oral                   | 110 (54.4%)              | 95 (45.5%)            | 205   |
| IUD                    | 38 (30.7%)               | 91 (69.2%)            | 129   |
| Injections             | 22 (40.0%)               | 24 (60.0%)            | 46    |
| Condom                 | 10 (83.3%)               | 2 (16.6%)             | 20    |
| Total                  | 180 (45.0%)              | 220 (55.0%)           | 400 (100%) |

<0.000

Table 5: Relationship between type of complications and type of contraceptives

| Type of complication | Oral No. (%) | IUD No. (%) | Injections No. (%) | Condom No. (%) | Total |
|----------------------|--------------|-------------|--------------------|----------------|-------|
| No complication      | 111 (51.6%)  | 47 (32.8%)  | 12 (40%)           | 10 (85.7%)     | 180   |
| Bleeding             | 8 (3.7%)     | 45 (31.4%)  | 13 (43.3%)         | 0              | 66    |
| Infection            | 0            | 31 (21.6%)  | 0                  | 2 (14.3%)      | 33    |
| Psychiatric          | 18 (8.3%)    | 0           | 0                  | 19             |
| Pain                 | 47 (21.8%)   | 12 (8.3%)   | 0                  | 0              | 59    |
| Malaise              | 23 (10.6%)   | 8 (5.5%)    | 0                  | 0              | 31    |
| Amenorrhea           | 0            | 0           | 5 (16.6%)          | 0              | 5     |
| Hypertension         | 8 (3.7%)     | 0           | 0                  | 7              |
| Total                | 215 (100.0%) | 143 (100.0%)| 30 (100.0%)        | 12 (100.0%)    | 400 (100%) |

productive age who used the condoms were (5%) of the studied sample, though it is regarded as a safe contraceptive method. A possible explanation is the decrease of sexual pleasure besides being considered an unpleasant method were the barriers of using the condom and this is in line with other studies (Hounton et al., 2005; Randolph et al., 2007). Condoms are widely accepted in developed countries because they have protection against sexually transmitted diseases, including HIV infection (Hounton et al., 2005).

The present study revealed that women’s age, residence, level of education, occupation, the economic status shows a significant association with the use of contraceptives methods. These findings seemed to be in agreement with studies conducted by John Bosco B et al. (2013), and Sanjit Sarkar (2016). (Asimwe et al., 2013; Sarkar, 2016), which indicated that women’s age, place of residence, level of education, and occupation are significant predictors of use and choice of contraceptives methods.

Concerning the education level of women of reproductive age, it was connected to the type of contraceptives use; however, differences in the use of any contraceptives method according to the education level have narrowed in the past decade, although differentials remain in the use of certain methods (Gubhaju, 2009).

The current study revealed that higher educated women and graduates of secondary schools were most commonly using IUD and oral pills (53.2%, 47.9%) respectively and this is in agreement with other studies (Al-Almaie, 2003; Awadalla, 2012; Brown et al., 2011), which reported a positive correlation between contraception use and the educational level of the women.

CONCLUSION

The oral contraceptive pills and Intra-Uterine Device are the most frequently contraceptives used by women of reproductive age. The most common complaints were bleeding, infection, and pain. Most women experiencing chronic physical diseases were suffering from complications. Age and type of contraceptives have a strong association with appearance and type of complication.

It is recommended to develop health education programs for women of reproductive age who attend the family planning centers to inform them of the available contraceptives and to make them knowl-
edgeable about the possible expected side effects associated with each contraceptive so they can select the suitable contraceptives in collaboration with their treating physician.

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