

DECISION-MAKING FOR USE OF INJECTABLE CONTRACEPTIVES IN ALEXANDRIA, EGYPT: A COMPARATIVE STUDY

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ABSTRACT

Injectable contraceptives are considered one of the modern methods that help in the rapid increase of the prevalence of family planning methods all over the world. In the past few years their use has increased considerably. To identify the potential factors affecting the decision to use injectable contraceptives in Alexandria, Egypt. A cross-sectional study was carried out in 26 family planning clinics affiliated to the Ministry of Health (MOH), Alexandria, Egypt. The study was conducted for seven months during October 2006 - April 2007. Alexandria has seven health districts; each district was represented by one clinic selected randomly from each type of the following 4 types of facilities: rural units, urban maternal and child health centers, hospitals, and health offices. They were selected by using the multistage stratified random sample technique. Totally 26 clinics were selected as two districts had no rural units. The sample size was 790 clients. All clients (new acceptors, current users, continuers and discontinuers of all methods) were interviewed using two predesigned questionnaire. The use of all methods was affected by the positive attitude of the husband towards the use of contraceptive methods. Refusal of husbands to use methods led to the covert use of injectable contraceptives in only 2.3% of clients. Nearly all current users discussed family planning with their husbands and, nearly 75% of wives expected that their husbands would discuss use freely. A higher proportion of new users expected refusal of use of family planning methods by their husbands than current users (25% versus 5.4%). None of new users expected their husbands would be aggressive during the discussion or to refuse discussion from the start. A considerable proportion of new users of injectable contraceptives changed to other methods after being counseled by health providers. Service providers (physicians and leaflets) were not the main source of information; they represented only 6% of information sources. The main sources of knowledge about the injectables were friends and peers (65%) and television (29%). The main rumor heard about injectables was that they cause infertility (56.9%) followed by causing breast tumors (10.8 %). Decision to use injectable contraceptives depends not only on women acceptability of the method but also on husbands' and health providers' attitudes and beliefs, as well as friends' opinion about injectables and also on rumors.

KEY WORDS: injectable contraceptives; decision-making; use; Alexandria

INTRODUCTION

Egypt has the world's largest Arab population, at 92 million, according to the Central Agency for Public Mobilization and Statistics (CAPMAS, 2012)⁽¹⁾. Contraceptive prevalence in Egypt reached its highest value of 60.3% in 2008; the injectable dominated changes in modern method use, accounting for 50% or more of the change in use of all modern methods⁽²⁾. In Egypt, the most commonly used modern methods are intrauterine contraceptive devices (IUD), pills and then injectables. Intrauterine device use stands at 36% of modern methods users, representing a skewed contraceptive method mix⁽³⁾. Injectable contraceptives use has significantly increased in the past few years from 0.5% to 21.1% among ever users of family planning methods⁽⁴⁾, the percentage of spacers who use injecta-

bles grew from 1% to 5%; for limiters, the figure rose from 1% to 13% of all method use⁽⁵⁾.

Several factors influence the use of injectables including their acceptability to women, which is affected by knowledge. Perceptions and experiences of health providers can affect the decision to use injectables through counseling sessions and dependent on the type of information given to clients. Method availability, including method cost, access to services and method choice, can affect choice of method and continuation of use⁽⁶⁾.

Injectable contraceptives are considered one of the modern methods that helped in the rapid increase in the use of family planning methods all over the world. They are the fourth most popular method worldwide after female sterilization, intrauterine devices and oral contraceptives. They have recently become more popular in Africa and lower-income Latin American countries⁽⁷⁾. For some women, these contraceptives are attractive because they are easy to use covertly⁽⁸⁾. In Sub-Saharan Africa, injectables are the most popular method, chosen by 38% of women using modern methods. In 2009, use of injectables in Africa stood at 6.8%, double the global average of 3.5%. In Asia,

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Latin America and the Caribbean, over 40% of married contraceptive users rely on injectables⁽⁷⁾.

Depo-Provera (depot-medroxy progesterone acetate DMPA) is the most commonly used injectable in the United States⁽⁹⁾. It is a convenient, discreet and low-maintenance method, and is ideal for patients with contraindications to estrogen use and certain medical conditions. In addition, there are many non-contraceptive benefits to Depo-Provera use. Side effects with this method include irregular bleeding, breast tenderness and weight gain⁽¹⁰⁾. In addition, the impact on bone mineral density should be taken into consideration when prescribing the method, especially for adolescents (age group 15-19)⁽¹¹⁾.

According to the Demographic and Health Survey (DHS), the unmet need for family planning in Egypt was 14%⁽¹²⁾. Unwanted pregnancies remain high in many low- and middle-income countries, suggesting that many factors could be driving contraceptive use. One of these factors involves disagreement between husbands and wives about method use and family size⁽¹³⁾.

Understanding factors affecting the decision to use injectable contraceptives with regard to client characteristics and why women prefer some contraceptive methods over others, husbands' roles and providers' perceptions of the use of injectable contraceptives can be useful for strengthening family planning programs; having a broad range of methods available is a key element of family planning service quality. It also raises the overall level of contraceptive use^(14,15). The aim of this study is to identify potential factors associated with the decision to use injectables by women living in Alexandria, Egypt.

MATERIALS AND METHODS

Study design

A cross-sectional study was carried out in the family planning clinics of the Ministry of Health and Population (MOHP) in Alexandria.

Study sample

A total of 790 females, who attended the family planning clinics, were included in the present analysis. The following four types of health facilities were included: 1) Urban Health Centers (UHCs), Family Health Units (FHUs)/Maternal and Child Health Centers (MCHCs), 2) Health Offices (HOs), 3) Rural Health Units (RHUs) and 4) Ministry of Health Hospitals (MOHs). Alexandria has seven health districts. Using the multistage stratified random sample technique, each of the seven health districts was represented by one clinic selected randomly from each type of these facilities. Thus, a total of 26 clinics were included (because El-Gomrouk and West districts have no rural units). A sample of 790 users was recruited from these clinics.

Data collection

The researcher spent 26 weeks in collecting the data.

One week was spent in each of the selected clinics, during the morning working hours between eight a.m. and one p.m. All clients (new acceptors, continuers and discontinuers of all methods) who could be approached by the researchers and accepted to participate were included in the study and interviewed at the clinic exit. Each exit interview took about 20 minutes. In crowded clinics, up to ten clients were interviewed daily. Data collection was completed within seven months in 2006-2007.

A structured interview was undertaken, using two pre-designed questionnaires, one for first-time users of contraceptives (n=169) and a second for current users (n=621). The content of the questionnaire varied according to type of user and included: a) Socio-demographic data (age, wife and husband education levels, income sufficiency, number of living children, age of youngest child and opinion on the ideal number of children in the family), b) Communication between husband and wife; this was elaborated through discussion of family planning with husbands and relatives, attitudes of husbands towards family planning and wives' roles in decision-making, c) Covert use of contraceptives, including the main motives behind decisions to use contraceptives covertly and the reactions of wives and husbands if side effects rose, d) Role of counseling in decision-making, including reasons for choosing injectables, sources of information, expectations about use, rumors about injectables, decisions taken after counseling and reasons for changing opinions. Clients who admitted covert use of contraceptives (n=18) were further interviewed in in-depth interviews. Each interview lasted between 25 and 30 minutes.

Ethical considerations

Permission to conduct the research was obtained from the Under-secretary of Health in the Alexandria Directorate. Necessary approvals from every district's general director and managers of family planning units at district level were obtained. The protocol was approved by the Ethics Committee of the High Institute of Public Health. Verbal consent was obtained from each client before conducting interviews.

Statistical analysis

The SPSS Program version 11.5 (SPS Inc. Chicago, Illinois, USA) was used for processing the quantitative data (data coding, entry analysis and tabulation). Data was summarized using mean and standard deviation. Chi squared test was used to test the differences in categorical data at the level of significance <0.05.

RESULTS

A total of 790 participants of family planning clients were interviewed. This sample included 169 new users and 621 current users of contraceptive methods. (Table 1) displays the socio-demographic characteristics affecting the decision to use injectable contraceptives. Compared with women who used other contraceptive

methods, injectable users were significantly older, less educated (both husbands and wives), and having bigger family size ($P < 0.05$).

Table (1) Socio-demographic characteristics affect the choice to use injectable contraceptives of clients attending family planning clinics, Alexandria

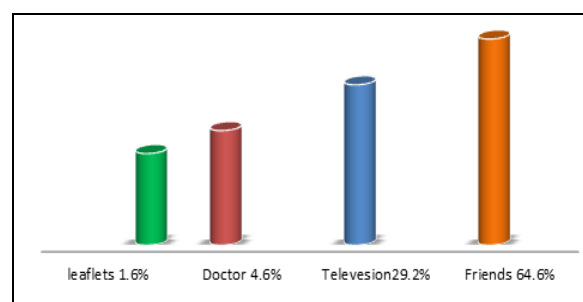
Women's socio-demographic variables	Injectables Users (N=226)		Users of other methods (N=564)		Total (n=790)		Chi ² P Value
	No.	%	No.	%	No.	%	
1-Age:							
<20	4	1.8	12	2.1	16	2.0	.00*
20	82	36.3	276	48.9	358	45.4	
30	97	42.9	211	37.5	308	38.9	
40+	43	19.0	65	11.5	108	13.7	
2- Education of clients							
• Illiterate, read and write	146	64.6	288	51.1	434	54.9	.01*
• Primary education	14	6.2	37	6.6	51	6.5	
• Preparatory education	13	5.8	64	11.3	77	9.8	
• Secondary education	47	20.8	133	23.6	180	22.8	
• University education	6	2.7	42	7.4	48	6.0	
3- Education of Husband							
• Illiterate ,read and write	144	63.7	260	46.1	404	51.2	.01*
• Primary education	17	7.5	53	9.4	70	8.9	
• Preparatory education	16	7.1	67	11.9	83	10.5	
• Secondary education	40	17.7	139	24.6	179	22.6	
• University education	9	4.0	45	8.0	54	6.8	
4- Income sufficiency							
• Always in debt	66	29.2	135	23.9	201	25.42	.39
• Sometimes in debt	57	25.2	132	23.4	189	23.9	
• Sufficient	76	33.6	219	38.8	295	37.4	
5- Number of children							
1	28	12.4	119	21.1	147	18.6	.00*
2	63	27.9	189	33.5	252	31.9	
3	74	32.7	160	28.4	234	29.6	
4+	61	27.0	96	17.0	157	19.9	
6- Age of youngest child(years)							
<2 years	82	36.3	336	59.6	418	418	.00*
2-4	59	26.1	91	16.1	150	150	
4+	85	37.6	137	24.3	222	222	

(Table 2) shows the decision-making and husband's attitude towards family planning use by new users and current users. The decision to adopt injectable contraceptives was made jointly by the woman and her husband. Most of the clients discussed using family planning methods with husband alone (69.9% and 72.3% of new and current users respectively). The majority of husbands discussed family planning smoothly with the wives (92.0%) and agreed to the use from the first discussion approving wives' rights to choose the method. Only 2.3% of all husbands didn't agree to the use of the contraceptive method (their wives were covert users).

(Figure 1) shows that the main sources of knowledge about the method came from friends or neighbors, then from television. Knowledge from doctors or leaflets represented small proportion.

(Table 3) shows the methods desired before counsel-

ing and those used after counseling. Nearly a quarter of new acceptors attending family planning clinics who initially desired to use injectable contraceptives changed their decision and shifted to other methods after being counseled by service provider



(Figure 1) Sources of knowledge about injectables among new acceptors

(Table 2) Decision-making and husband's attitude to family planning use by type of clients attending family planning clinics in Alexandria

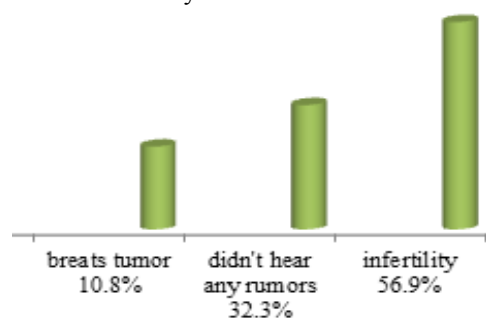
Decision-making and husband's attitude to contraceptive use	New users		Current users		Total	
	No.	%	No.	%	No.	%
1-Discuss family planning with anyone						
• Yes	169	100.0	621	100.0	790	100.0
• No	0	0.0	0	0.0	0	0.0
2-With whom:						
• Husband only	118	69.9	449	72.3	567	71.8
• Mother, sister and husband	41	24.3	112	18.1	153	19.3
• Neighbor, friends, and husband	8	4.7	29	4.7	37	4.7
• Husband and mother in law	0	0.0	28	4.5	28	3.6
• Someone other than husband	2	1.1	3	0.4	5	0.6
-Husband attitude to discussing family planning in general; Discuss smoothly:						
• Yes	161	95.3	566	91.1	727	92.0
• No	8	4.7	55	8.9	63	8.0
-Frequency of discussions (with husband)						
• Once or twice	161	95.3	565	91.0	726	91.9
• Many times	6	3.5	53	8.5	59	7.5
• Didn't discuss at all	2	1.2	3	0.5	5	0.6
Husband agreement to use family planning method						
• Agree to use a method	167	98.8	605	97.4	772	97.7
• Not agree to the use	2	1.2	16	2.6	18	2.3

(Table 3) Distribution of new acceptors attending family planning clinics after counseling, Alexandria

Method	Initially desired method before counseling		No change in preferred method		Switch to other choices	
	No.	%	No.	%	No.	%
• IUD	109	53.7	109	100.0	-	-
• Injectables	65	32.0	50	76.9	15	23.1
• Pills	22	10.8	22	100.0	-	-
• Implants	6	2.9	6	100.0	-	-
• Condoms	1	0.6	1	100.0	-	-
Total	203†	100.0	188	92.6	15	7.4

†These 203 included 169 users who did not previously use any method plus 34 clients who were currently using methods, but switching to other methods at the time of the interview.

(Figure 2) shows the rumors about side-effects of injectable contraceptives. The main rumor heard about injectables was that they cause infertility (56.9%). The second rumor was that they cause breast tumors (stated by 10.8 % of new acceptors of injectables) and 32.3% didn't hear any rumors.



(Figure 2) Rumors about injectable contraceptives

DISCUSSION

All over the world the contraceptive decision follows a fixed pattern based on a couple's demographic situation, educational level and religious beliefs than on characteristics of the contraceptive methods⁽¹⁶⁾. The current study was implemented to investigate the factors affecting the decision to use injectable contraceptive in Alexandria to increase our understanding of the contextual variables behind method choice and covert use of injectable contraceptives. Contraceptive use is determined mainly by reproductive status, the combined impact of, age, parity, and future child wish. A considerable proportion of injectable users was of older age group and had larger family size than other contraceptive methods users. A possible explanation is that injectable users usually use them as a long-acting method for limiting rather than for spacing. Illiteracy was more among injectable users than other methods

users; also income insufficiency was more among injectable users than other methods users. These results agree with other reports from developing countries like Kenya⁽¹⁷⁾, where injectable use increases consistently with declining educational attainment, it also increases with the living number of children. Studies from Pakistan revealed that users of injectables were generally poor and illiterate⁽¹⁸⁾. On the other hand, in Jordan a study agreed with all the above determinants except for education where it found that education was less likely to influence contraceptive use⁽¹⁹⁾.

Husband-wife communication is another important factor that affects the decision making about the use of family planning method. In many developing countries discussions about sexual matters are taboo for men as well as for women and couples may be afraid to raise the topic of contraception especially at the beginning of their marriage. In Malaysia, a report mentioned that there was 2.8 time increase use of family planning methods among couples who had good communication than those couples with poor communication⁽²⁰⁾. In Nepal, a study indicated that husband-wife communication and wife perceptions of her husband approval of family planning were the strongest predictors of current use⁽²¹⁾. In the present study, the majority of husbands discussed family planning smoothly with their wives and agreed to the use from first discussion. Also the good communication between husbands and wives and agreement to use contraceptive methods affected positively the methods use. This study showed that husbands have a very strong role in the decision-making to use family planning methods as nearly all wives stated that they will not use a method without husband agreement about this particular method even if the husband implicitly accepts family planning. It also showed that even those who admitted readiness to use a contraceptive method without husbands' knowledge, when came to practice, some of them refrain from covert use, as only a small percent of our sample resorted to covert use. The main causes of covert use were economic, health and limiting. A study in Mali mentioned the same order of causes⁽²²⁾. The estimated rate of covert use in Sub-Saharan African countries was 6-12%⁽²³⁾ while in the present study covert use represented only 2.3% of the sample, which might be due the high approval of husbands of family planning. This indicates high levels of agreement between couples regarding decision to choose and use contraceptive methods. In Egypt as a whole, there is a high rate of acceptance of family planning, which is largely due to the intense use of mass media to disseminate family planning messages as well as the increasing participation of religious leaders in efforts declaring that Islam approves family planning. In addition, many husbands as a result of the progressively increasing economic pressures became less resistant to the concept of small families.

Reasons for choosing injectable contraceptives were: very low failure rate, reversibility, long term option,

independence of intercourse and users' memory, ease to use and privacy⁽²⁴⁾. Also convenience of use was one of the main causes of injectable use among first-time contraceptive users⁽²⁵⁾. The decision to use injectable contraceptives by new users in the present study was affected by many factors including, their knowledge about the injectable contraceptives advantages and disadvantages. The main advantages included, high effectiveness, long action, less side effects, covert use and the ease to use. The main disadvantages of injectable contraceptives stated by current users in the present study were, menstrual problems including amenorrhea, irregular periods and bleeding, followed by medical problems and the desire for longer acting methods.

The Egyptian Demographic and Health Survey (DHS, 2005), showed that knowledge about family planning was universal among currently married women in Egypt, and that television is the main source of information⁽²⁶⁾. In the present study neighbors and friends were the main source of knowledge and information about injectables, followed by television, and minority from doctors and leaflets. First time users usually receive incomplete information about their desired methods. Appropriate counseling should provide unbiased information, and correct any misbeliefs and rumors. More than 25% of women using methods other than injectables in the present sample did not know any advantage of injectables. Also, nearly half of current users of injectables did not know any disadvantage of injectable. This is in agreement with the results of DHS⁽²⁶⁾ where most women mentioned that they had not received sufficient information to make informed choice. Research all over the world consistently documented poor quality of counseling in general and inadequacy of information provided on side effects in particular^(14,27,28). In the present study, nearly a quarter of the new acceptors who decided to use the injectables had changed their decision after counseling and hence changed to other methods. Also more than 66% of them heard rumors about injectable entailing causing infertility and breast cancer which may contribute to the change in their decision to use them.

Limitations

Our study has a number of limitations that warrant mention. We have interviewed users of contraceptive methods only, although the decision to use contraceptive methods is shared by many parties including women, husbands, family members, peers and health care providers. Information about the decision to use injectable contraceptives was addressed from the women points of view only. We encountered some difficulty to discuss the husbands' roles and their points of view directly to explore their attitude about using family planning methods.

Also, the health providers' role is important their knowledge and experience about the different methods can deeply affect the decision to use the methods through advices given during the counseling sessions. In this study there was no direct exploration of health

providers' beliefs and knowledge about the injectable contraceptives.

CONCLUSION AND RECOMMENDATIONS

The decision to use injectable contraceptives is affected by many factors including, age of the users, educational status and communication between husband and wife, income and knowledge about injectable contraceptives. In the present study users were older, less educated than other methods users and communication between husbands and wives was good. Husband refusal to use the method was minimal where only 2.3 % of users resorted to covert use. Knowledge about injectable contraceptives was mainly from friends and neighbors; this draws attention to the importance of peer education and word of mouth in attracting more new clients to use injectables. Many rumors are associated with the use of injectables such as infertility and breast cancer. Counseling should emphasize on giving sufficient unbiased information on side effects and actively counteracting myths and correcting misperceptions about injectable contraceptives. Couple counseling rather than women-only counseling should be encouraged. Service providers should be instructed to avoid steering clients away from methods that might otherwise be suitable for them.

RECOMMENDATIONS

Research should be directed towards providing useful, sound information and knowledge about injectables advantages, disadvantages and side effects by the use of media (mainly television) and peer education. Addressing couples' communication and providers' perceptions can help in improving the use of injectable contraceptives.

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