

Married Iranian Women's Knowledge, Attitude and Sense of Self-efficacy about Oral Contraceptives: Focus Group Discussion

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Abstract

Background: Oral contraceptive pills effectiveness is lower in actual use than in clinical trials. The views of a group of married Iranian women were sought as a step toward improving the enhanced use of contraceptive pills.

Methods: Two focus groups of current pill users (n=13) and two focus groups of women not currently taking the pills (n=14) were held. Leaders trained facilitators; themes were identified from line-by-line analysis of transcripts.

Results: The majority of the participants were primary school graduates with a mean age of 34 years. Knowledge about mechanisms of action was low; some women wanted more information. Both users and non-users recognized positive and negative characteristics of contraceptive pills. For non-users, physical and emotional side-effects were the most important; and anecdotal information from their social network was more important. They tended to trust more traditional methods. For users, their own experience and more reality-based understanding of side-effects mitigated concerns about side-effects. They also felt that health clinic staff had a negative attitude toward the pills. A stronger expression of self-efficacy seemed to be associated with more positive attitudes toward oral contraceptive pills.

Conclusion: Although Iran has had a government-funded family planning program since 1990, and pills are the single most popular modern contraceptive method, women who take OCPs can provide important information that could increase effective health education about their use.

Keywords: Contraception, Family planning, Reproductive health, Women's health

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Introduction

OCs are the most popular choice of contraceptive methods in developed countries (1, 2). In Iran also, OCs are the most popular and widely used method: 18.4% of married women use the pills (3). However, many false beliefs and misperceptions, fear, and ignorance about the actual or perceived side-effects still prevail (4, 5); 17.8% of Iranian couples continue to depend on withdrawal (3). OCs are the most effective method if used as medically indicated. For combined OCs, the perfect-use pregnancy rate (clinical trial) is just one pregnancy per 1,000 women. Although first year typical-use pregnancy rates for

OCs can be 8 per 1,000, the comparable rate for withdrawal is 27 per 1,000 (6). A study comparing attitudes toward withdrawal and OC use among withdrawal method users in Iran has shown that worries about side-effects, need for medical advice, physical examinations, daily use, and husband preferences keep women from changing to OCs (7). There seems to be no study in Iran done to try to understand knowledge and attitudes among women currently using OCs, and comparing them with that of a wider range of non-OC users.

Contraceptive knowledge and attitudes are

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known to affect contraceptive choice (2), but leave much to be explained (8). During the last decade self-efficacy has been shown to be an important predictor of effective preventive health behaviors (9). For instance, Turkish women with high mean scores for self-directedness were more likely to consider using pills vs. longer-term hormonal methods such as implants or IUD's (10). Statistical modeling has verified self-efficacy as the most important influence on continued OC use among Iranian women (11–13).

This research was designed to explore whether there were differences between OC users' and non-users' knowledge about and attitudes toward this method. In order to contribute more extensively to our understanding of women's decisions regarding adoption of OCs, we also explored their sense of self-efficacy, or what could be called people's beliefs about their capabilities regarding OC use. Self-efficacy is the degree of belief about having the necessary skills and resources, in this case to use a contraceptive; and can be distinguished from the degree of positive or negative attitude toward that contraceptive (10).

A woman with a strong sense of self-efficacy for OC use is one who believes that she has the ability and the self-power, or agency, to use her pills effectively.

In sum, there is evidence that Iranian women's continued use of OCs is primarily related to self-efficacy (11); and there are documented insights into decisions to start using OCs among Iranian women depending on withdrawal (7). In other countries, knowledge and attitudes toward OCs, access to services, cost, and opinions of influential others, are the most frequent correlates of OC adoption (2, 8), no matter whether the women are switching methods or are new contraceptors. Cost is not a factor in Iran since OCs are distributed free of charge by public health facilities and access is assured by these neighborhood facilities. Therefore, our inquiry focused on knowledge, attitudes, influential others and newer concepts of self-efficacy.

The purpose of this study was to obtain insights into factors influencing use of oral contraceptives (OCs) by a group of Iranian women.

Methods

Qualitative methodology was used to identify the perceptions, concerns and self-efficacy beliefs about OCs among married women in Mashhad, Iran during 2010.

Qualitative methods have a wide range of possible use in family planning and reproductive health care research and focus groups, and they offer great flexibility in particular (14, 15). The method is most effectively used when the objective of investigation is to elicit points of views of client or consumer groups which may differ from those of providers (16). For instance, local cultural practices may differ from, or conflict with, standards of medical practice. Knowledge of differences in perspectives can assist in designing alternative standards which take into account local practices (13).

A focus group is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs and attitudes towards a product, a service, a concept, an idea, or a service package (17). Focus group method was chosen in order to challenge assumptions and program practices of clinicians and researchers. The non-threatening flexible ambience of a focus group can produce ideas that lead to innovative programs, greater understanding, and program improvements. Qualitative researcher continues to collect data until it reaches a point of data saturation. Data saturation occurs when the researcher is no longer hearing or seeing new information. Unlike quantitative researchers who wait until the end of the study to analyze their data, qualitative researchers analyze their data throughout their study.

In the preparation phase, a three-day workshop was held on qualitative research methodology, to train moderators and observers in how to conduct focus group discussions and how to analyze focus group data. The discussion guide for the focus group discussions was prepared during this workshop.

In the pilot phase two focus groups (each group consisted of four to six individuals) were organized to test the discussion guide in a neighborhood not included in the study area but still in the region, and later the discussion guide was edited and revised for use to stimulate the subsequent focus group discussions. The final guide consisted of open-ended queries designed to stimulate discussion about knowledge of family planning methods (especially OCs), positive and negative attitudes, how they decided which family planning method to use, and their experiences and perceptions of family planning self-efficacy. The same discussion guide was used with all groups.

For the study, four focus groups were held with participants being individually recruited for diver-

sity of age. All the selected participants were married and they were in the fertile age group (15–49 years). Thirteen were OC users and 14 were not using the pills at that time. The recruitment of the non-users was made in the same area where the OC users lived. Women were selected for the focus group interviews who qualified on the same criterion as mentioned earlier.

Sampling in qualitative research is usually purposive. The primary goal in qualitative research is to select information-rich cases. There are several specific purposive sampling techniques that are used in qualitative research. We used Random Purposeful (Reduces judgment within a purposeful category which is not for generalizations or representativeness) sampling method (18).

The meeting was arranged in the same area in the house of one of the participants. The discussion time was about the same as prescribed for the focus group interviews with the OC users and non-users.

Different authors have recommended slightly different minimum and maximum numbers of focus groups. For example, focus groups may comprise six to eight participants each (19) or “eight to ten individuals” (20). In this research, each focus group consisted of six to seven participants (six or seven participants for user groups and seven participants for non-user groups in each focus group) and discussions lasted 45–60 minutes each.

Focus group meetings were held in a local non-governmental organization or the house of a participant, in order to study individuals in their natural setting (21). The focus groups were led by a moderator with two trained observers. The study staff were all professional, college-educated women in their 30's or 40's.

There was a trained moderator in each group who prepared questions and probes, set the stage and induced participants' responses; the moderator monitored stress levels of participants and intervened when necessary, she had also some clinical experience in order to adequately monitor the “comfort level” of the participants. Informed consent was obtained from all the participants before the group discussions.

The discussion guide was designed to stimulate discussion about knowledge of family planning methods (especially OCs) positive and negative attitudes, how they decided which family planning method to use, and their experiences and perceptions of family planning self-efficacy. The same

discussion guide was used with all groups. All interviews were audio taped. In addition, extensive notes were taken during the discussions, and these were subsequently employed when the tapes were reviewed and transcribed. Every effort was made to keep the meaning the same as the one reported by the respondents. Line-by-line transcript coding was refined by consensus between researcher and observers and by checks with participants. The two moderators analyzed the transcript independently using content analysis.

This study was reviewed and approved by the Institutional Review Board of Mashhad University of Medical Sciences, in Mashhad, Iran.

Results

A total of 27 women participated in the focus groups. The majority, 52%, were primary school graduates. The mean age of the participants was 34.0 ± 4.2 years. The majority, of the participants were housewives. OC users tended to be more educated (higher than primary education) compared to non-users (Table 1).

Knowledge of OCs: Seventeen women knew little about how OCs worked, what they contained, or the differences between the various types of OCs. They did not know about the link between OCs and deep vein thrombosis or thrombotic symptoms. Many women ($n=19$) wanted information about side-effects. Fear of future infertility was an overriding factor in women's attitude toward OCs, especially among younger women. They were also unaware of many benefits.

A majority ($n=16$) cited both perceptions of side-effects as well as personal experience with side-effects as reasons for not using or discontinuing the use of OCs. Women also demonstrated incorrect knowledge about OCs, and tended to value anecdotal information over the information provided by health professionals. These factors led to reliance on less-effective methods of OCs, placing participants at risk for unintended pregnancy. Concern about side-effects, fear of health consequences and misinformation were identified as barriers to effective OC use in young women. Nineteen women were largely uninformed about reproductive physiology and methods of contraception.

Eighteen women admitted that they did not know that their OCs should be taken at approximately the same time every day; that they should use barrier protection such as a condom for the rest of that cycle if they had skipped a pill or

Table 1. Demographic characteristics of the participants (n =27)

Demographic Variables	Total	OC users	Non-OC user
	Count		
	27	13	14
Mean Age*	34 ± 2.8		
Education			
Elementary	14	6	8
High School	7	3	4
Diploma	4	3	1
Higher than Diploma	2	1	1
Employment Status			
Employed	6	4	3
Unemployed	21	9	11
Economic Status			
Very good	2	1	1
Good	16	9	7
Moderate	6	2	4
Weak	3	1	2
Number of living children			
0-1	8	5	3
2-3	10	5	5
≥ 4	9	3	6
Parity*	2.3 ± 1.24		

* Mean±SD

taken it more than 24 hours late. They also did not know about emergency contraception or where to get it. In contrast, only three participants commented that they believed they had enough knowledge about family planning methods and that they had chosen pills as the most suitable method and continued to use them.

In general, there was poor knowledge of the mechanism of action for modern methods, as well as poor knowledge of any noncontraceptive benefits. In contrast, participants often gave a list of adverse effects arising from the use of these methods.

Non-user women focused predominantly on physical and emotional side-effects.

Almost two-thirds of them (users or non-users) (n=8) said they had not received enough contraceptive education to select and use a method effectively.

Attitudes towards OC use: Uncertainty or ambivalence about the safety of oral contraceptives was reported by almost one-third (n=4) of the users and one-half (n=7) of the non-users, who even considered OCs to be mostly harmful. Personal experiences and stories from social networks proved to be more salient than medical opinions

in shaping safety perceptions. Side-effects and concerns about long-term health effects were common themes.

All but one of the non-users stated that health hazards and side-effects occurred during OC use; with two women stating that long-term use of the pill would damage some body systems since all medicines had contraindications as well as health benefits. Half (n=7) of this group mentioned side-effects of the pills and defined the most common ones as weight gain, increase in body hair, hormonal irregularities and development of cancer. Weight gain was particularly attributed to the pill's hormonal basis. In addition, four participants mentioned beliefs about side-effects of OCs leading to goiter and calcification. One participant stated that she had obtained information from a doctor friend that the pill was hazardous to health (a 22-year-old woman). Another participant stated that if the pill was not used under the guidance of a doctor, it could lead to side-effects and even cancer (a 33-year-old woman).

Non-users often lacked confidence in method safety and had many concerns about the side effects of oral contraceptives. More than half, (n = 8) of these non-users said that problems with the pill included infertility, frequent menses and "frequent dosing". Participants argued that "the oral contraceptive pills entered the blood stream and directly interfered with future fertility." Typical comments were:

"It's hormonal ... if something consists of hormones it makes you fat."

"If you use pills every day you have intercourse, your body will develop resistance to it. The woman's body would need the pills whether she would have coitus or not."

"There are various types of pills for each particular body condition. For example, an overweight woman of 100 kg goes and gets the pills for 60 kg woman".

"What happens? Side-effects will appear. Sometimes it causes hormonal irregularities or even worse problems such as cancer".

"Pills have many side-effects. Either they cause weight gain or sometimes loss of weight."

"In addition, they say that they cause cancers."

Five participants in the non-user groups stated that the pills could cause spontaneous abortions in future pregnancies and that fertility would be delayed after using them.

"We have talked to another doctor friend about this. She said the same: that the length of use

causes this result. You have to have a month interval in every 3 or 4 months.”

“We know some women using pills for 2 years ... I mean I have relatives who are infertile now because of this. In other words, the woman is able to conceive but it results in spontaneous abortion later....”

“Abortion is sin.” “Induced abortion is the sin.” Some other negative views of the non-users were about problems in obtaining the pills, ineffectiveness of the pills and their side-effects.

Some non-users had experience with OCs, either themselves or through contact with others.

“The pills were not good for me for the 9 months that I used them. I had a headache all that time and I couldn’t get out of bed. When I tried to get up I felt dizzy. I quit it and decided on an IUD. In fact, I would like to use pills if I did not have those side-effects.” [“But pills are used.”] “They’ve been used but nobody is using them anymore because of those side-effects they’ve stopped them already.”

A 39-year-old woman mentioned that “women who are hypertensive and have kidney disease could not use the pills. Another stated that older women were not able to use OCs (a 30-year-old woman). The pill was thought to affect the liver and the kidneys leading to organ damage. Two of the participants said their husbands thought that pills definitely had some side-effects and this was why they were against their using them. A 23-year-old participant stated that her older family members did not want her to use the pills.

One user opposed all the views that the pill hindered future pregnancies (a 33-year-old woman). She stated that they had had a baby when they had decided to have one after using the pill as contraception for a long period of time (a 39-year-old woman). Another participant stressed that pill use might not lead to side-effects if it was used under medical supervision.

“The pills give no complaints¹ if they were used under a doctor’s control. But the doctor control is a must. Otherwise, you go and get it from the pharmacy and you use it as you assume to do. In that case there would be complaints.” (A 35-year-old woman in the non-use groups).

Another user (a 22-year-old) stated the known contraceptive methods and pointed out that the pills were one of the three current methods in use.

“We accept three basic methods. The first one is withdrawal, the second is intrauterine device (IUD) and the third is the pills, which are produced by the Ministry of Health. We depend on those three.”

But almost half (n=6) of the users thought that pill side-effects were the reason people thought it should be used for a short time. Commonly, users mentioned side-effects of the pill as weight gain, headache, nervousness, dizziness and menstrual irregularities. Four mentioned other complaints such as gastric tenderness, an increase in body hair and changes in mood. Menstrual irregularities were defined as shortened bleeding time, lengthened cycle or amenorrhea.

More than two-thirds (n=9) of the users stated that unwanted side-effects of pill use could be eliminated if the user instructions were well-understood and followed. In addition, it was recognized that health checks were required before starting the pill. These participants understood the pill’s effect on menstrual cycle regulation. Users talked about the effectiveness of OCs and stated that they had not experienced an increase in body hair or nervousness.

“I use pills and I feel comfortable psychologically. I mean you are sure of its effectiveness and it also regulates my menses. I was already nervous before using them and I don’t believe it has got more severe now.”

“It is effective. It prevents unwanted pregnancies.” “Birth control pills or oral contraceptive pills have been used in this country for many years. Safe and effective, they are one of the most effective contraceptive methods”.

Two participants summarized other positive aspects of OCs as follows:

“You control the pills; everything is in your hand. I can carry it with me everywhere. The only regulation is not to forget to take it on time”.

“I felt that it causes some depression in me but I am sure it will become less and go in time. The method is my own choice. Using this method is for my benefit. If I leave the responsibility to the other side any single hitch would bring me trouble....”

Family Planning Self-efficacy: Many women said that, “the health staff made the decision for me.” In fact, when asked why they were using a particular method, the women appeared reserved to ask questions, even though they wanted to know more about different methods and their side-effects.

1- Bodily ailments

Just over half (n=14), equally from both groups, said something like, they were illiterate and could not understand all the things health workers told them as they forgot their explanations.

Those who had recently started the pill use reported that their friends and neighbors suggested them not to use the pills and other family planning methods in many instances, because they believed they had too many side-effects. Some of them asserted that "in most cases they did not have enough information to answer the questions of those who rejected the contraceptive". Some others (n=8) believed that since the pill should be used over a long period of time, they were often boring and might be forgotten many times.

Underlying themes about beliefs and self efficacy suggested that self-efficacy was associated with 'fear of side effects,' 'a lack of information,' 'perceived inadequate family health needs,' and problems with 'long term consumption'.

First-time users and non-users were more influenced by external social pressures (e.g. friends) and were more concerned about "side-effects," whereas regular OC users were more likely to mention 'planning successfully for family health needs' as a motivation to use OCs. But most of them still preferred traditional contraceptive methods, especially withdrawal, which can be used without recourse to civil authorities. The other negative attitudes of the user participants included concerns about side-effects and the rules for taking OCs as well as the attitude of the health service professionals towards OCs. Positive attitudes from both groups included recognition that pill use did not affect or interrupt sexual intercourse. Contraceptive effectiveness as a benefit of OCs was stated only in the user group.

Discussion

In this study, an overview of the groups showed that most participants preferred traditional contraceptive methods, particularly withdrawal, because of a variety of negative attitudes to medical methods, particularly the pill. All of the women in this survey were aware of the pill as a method of family planning. Three-quarters had used the pill at some time in their lives. Current non-users generally expressed negative attitudes about the pill, including the fear of side-effects, fear of the pill's effect on future fertility, and attitudes of health professionals toward OCs. Most of them preferred traditional contraception, especially withdrawal; and expressed concern about external so-

cial pressure from family and friends. On the other hand, users mentioned "successful planning for family health needs" and were concerned about its effectiveness. Although no qualitative study can be conclusive, a sense of having the ability and resources to use OCs, i.e., contraceptive self-efficacy, seemed to be associated with understanding or acceptance, not fear, of side-effects; a feeling that they had adequate contraceptive information; and a perception of the need for something effective.

Concern about side-effects has been found in other studies in Iran (22). Despite the immense body of evidence regarding the safety of OCs, the perceived health risks are often exaggerated (23). In the present study, the perceived side-effects of the pill were of greater concern to both groups than the side-effects of other medical methods and they were a major factor influencing their decision whether to use the pill and continue with it. Participants in a Nigerian focus group study believed that "oral contraceptive pills entered into the blood stream and as such directly contaminated the blood, interfering with future fertility" (24). Although none of our participants mentioned such a mechanism, a negative effect on future fertility was a clear concern. In a Finnish study the major concerns about OCs were cardiovascular effects, cancer, infertility, mood changes and weight gain (25). Of these, our participants mentioned only weight gain as a specific concern. In a Russian study to identify why the pill was so unpopular, focus group participants described the pill as harmful, ineffective, untrustworthy and difficult to obtain (26).

In Iran, OCs are free, and easily available from neighborhood health houses, health posts and rural or urban health center. However, some women in our study reported that during family planning consultations the health care professionals did not mention OCs as the most effective choice of contraception but generally focused on health conditions that restricted the use of the pill. This was one of the main reasons why women did not choose the pill as their method of contraception. During earlier days of pill use in the U.S., the majority of the doctors specializing in family planning were biased against the pill and their attitude had a direct relationship to some women's belief that the pill was a harmful method of contraception (27). Reasons cited by the participants for the lack of trust in medical methods were: the health care professional's behavior, bias or nega-

tive attitude, lack of knowledge and insufficient information, and failure in coping with problems that arose from pill use. Findings of a focus group in England, suggested similar issues and concluded that women lacked some important knowledge about OCs and that they wanted more information about OCs (28). As such concerns can be a barrier to contraceptive use, these perceptions need to be corrected as a way to encourage use of more effective methods that are more likely to prevent unintended pregnancy. Culturally appropriate interventions should focus on client-provider interactions and social networks, as well as access to care.

In our study, some participants stated that there were positive aspects of OCs. Some of these positive aspects were also mentioned by the participants of a Swiss study, who reported that positive health effects of the pill include a reduction in dysmenorrhoea and menorrhagia and menstrual cycle regulation (29).

To the extent that health care providers are barriers to OC use, OC refresher courses may be necessary to change the attitudes of health care providers. These courses should emphasize good counseling techniques, with consideration of positive, as well as negative side-effects of the methods, and inclusion of husbands and other influential relatives. Clients' questions should be addressed in a balanced way, whether the questions are asked or just implied. Providers caring for this population should address potential concerns about the side-effects, as well as assess the clients' understanding in light of cultural barriers.

The widespread nonuse of oral contraceptives by women in Iran is not irrational, given their levels of information and their beliefs and attitudes. Our results from women who had convenient access to contraceptive pills suggested basic awareness; but specific knowledge on appropriate use was missing. Many of their concerns stemmed from incomplete information about how the regimen worked. Participants were curious to know more. They asked for routine patient education on the method, as well as more general discussion. Some participant recommendations for the health personnel to improve patient information and their practices included: regular check-ups (rather than dispensing the pills over the counter), providing consultations with health personnel during check-ups, having a fact sheet on OCs available at health centers, and asking clients more questions during check-ups.

Concerns about the side-effects of oral contraceptives can be a barrier to contraceptive use, these perceptions need to be corrected to encourage more effective use of hormonal methods and to prevent unintended pregnancies. In this study, higher levels of knowledge about contraception were associated with more favorable attitudes about its use.

Common themes emerging from these discussions included the need for ongoing informational campaigns and peer-led discussions, because participants were unsure about the time of use, the level of effectiveness, the mechanism of action, and the potential side-effects.

Women's statements that they were "illiterate" suggest two other important foci: visual and broadcast media campaigns on effective contraceptives and their use; and an emphasis on helping men of reproductive age feel they have control over reproductive decisions, albeit within the context of the family. That is the importance of contraceptive self-efficacy.

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References

1. Mosher WD, Jones J. Use of contraception in the United States: 1982-2008. *Vital Health Stat* 23. 2010;(29):1-44.
2. Bongaarts J, Johansson E. Future trends in contraceptive prevalence and method mix in the developing world. *Stud Fam Plann*. 2002;33(1):24-36.
3. Iranian Ministry of Health. [DHS Survey: Population and Health in the Islamic Republic of Iran]. 1st ed. Tehran: Unicef, Iranian Ministry of Health and Medical Education; 2000. p. 1-167. Persian.
4. Shah NM, Shah MA, Chowdhury RI, Menon I. Reasons and correlates of contraceptive discontinuation in Kuwait. *Eur J Contracept Reprod Health Care*. 2007;12(3):260-8.
5. Karavus M, Cali S, Kalaca S, Cebeci D. Attitudes of married individuals towards oral contraceptives: a qualitative study in Istanbul, Turkey. *J Fam Plann Reprod Health Care*. 2004;30(2):95-8.
6. Trussell J. Contraceptive efficacy. In: Hatcher RA, Trussell J, Nelson AL, Cates W, Stewart FH, Kowal D, editors. *Contraceptive technology*. New York: Ardent Media; 2007. p. 747-826.
7. Rahnama P, Hidarnia A, Shokravi FA, Kazemnejad A, Oakley D, Montazeri A. Why Iranian married

- women use withdrawal instead of oral contraceptives? A qualitative study from Iran. *BMC Public Health*. 2010;10:289.
8. Prachi R, Das GS, Ankur B, Shipra J, Binita K. A study of knowledge, attitude and practice of family planning among the women of reproductive age group in Sikkim. *J Obstet Gynecol India*. 2008;58(1):63-7.
 9. Bandura A. *Psychological Modeling: Conflicting Theories*. 2nd ed. New York: Idine Press; 2006. p. 56.
 10. Aker S, Boke O, Dundar C, Peksen Y. The effects of temperament and character on the choice of contraceptive methods. *Eur J Contracept Reprod Health Care*. 2007;12(4):378-84.
 11. Peyman N, Hidarnia A, Ghofranipour F, Kazemnejhad A, Oakley D, Khodae G, et al. Self-efficacy: does it predict the effectiveness of contraceptive use in Iranian women? *East Mediterr Health J*. 2009;15(5):1254-62.
 12. Peyman N, Oakley D. Effective contraceptive use: an exploration of theory-based influences. *Health Educ Res*. 2009;24(4):575-85.
 13. Peyman N, Heidarnia A, Ghofranipour F, Kazemnejad A, Amin Shokravi F. [The influence of modified Steps to Behavior Change model on Oral Contraceptive use]. *J Reprod Infertil*. 2009;10(1):58-70. Persian.
 14. van Teijlingen E, Forrest K. The range of qualitative research methods in family planning and reproductive health care. *J Fam Plann Reprod Health Care*. 2004;30(3):171-3.
 15. Silverman D. *Qualitative research: theory, method and practice*. 1st ed. London: Sage Publications; 2004. p. 283.
 16. Bender DE, Ewbank D. The focus group as a tool for health research: issues in design and analysis. *Health Transit Rev*. 1994;4(1):63-80.
 17. Naomi RH. *Managing Moderator Stress: Take a Deep Breath. You Can Do This!* Market Res. 2009; 21(1):28-9.
 18. Patton MQ. *Qualitative evaluation and research methods*. 2nd ed. Newbury Park: Sage Publications; 1990. p. 132
 19. Tang KC, Davis A. Critical factors in the determination of focus group size. *Fam Pract*. 1995;12(4): 474-5.
 20. Fitzpatrick R, Boulton M. Qualitative methods for assessing health care. *Qual Health Care*. 1994;3(2): 107-13.
 21. Creswell JW. *Research design: qualitative, quantitative, and mixed methods approaches*. 3rd ed. London: Sage Publications; 2008. p. 173-90
 22. Rakhshani F, Mohammadi M. Contraception continuation rates and reasons for discontinuation in Zahedan, Islamic Republic of Iran. *East Mediterr Health J*. 2004;10(3):260-7.
 23. Sullivan TM, Bertrand JT, Rice J, Shelton JD. Skewed contraceptive method mix: why it happens, why it matters. *J Biosoc Sci*. 2006;38(4):501-21.
 24. Otoide VO, Oronsaye F, Okonofua FE. Why Nigerian Adolescents Seek Abortion Rather than Contraception: Evidence from Focus-Group Discussions. *Int Fam Plan Perspect*. 2001;27(2):77-81.
 25. Sihvo S, Hemminki E, Kosunen E. Contraceptive health risks--women's perceptions. *J Psychosom Obstet Gynaecol*. 1998;19(3):117-25.
 26. Popov AA, Visser AP, Ketting E. Contraceptive knowledge, attitudes, and practice in Russia during the 1980s. *Stud Fam Plann*. 1993;24(4):227-35.
 27. Davis A, Wysocki S. Clinician/patient interaction: communicating the benefits and risks of oral contraceptives. *Contraception*. 1999;59(1 Suppl):39S-42S.
 28. Taylor MJ, Farmer A, Craig C. Women's knowledge of the contraceptive pill: the results of a focus group. *Br J Fam Plann*. 1995;21(1):27-9.
 29. Oddens BJ. Women's satisfaction with birth control: a population survey of physical and psychological effects of oral contraceptives, intrauterine devices, condoms, natural family planning, and sterilization among 1466 women. *Contraception*. 1999;59(5):277-86.