# The Unmet Need for Contraception among Married Women in Nefesha Village in Ismailia

### Noha Adel<sup>\*</sup>, Lamiaa A. Fiala, Ayman Ekram, Fatma Hassan

Department of Public Health, Faculty of Medicine, Suez Canal University, Egypt

### Abstract

Background: Unintended pregnancy is a worldwide problem which affects women, their families, and society. Aim: to determine the prevalence and determinant of the unmet need of family planning among married women in the child bearing period in Nefesha Village in Ismailia. Subjects and methods: This cross-sectional study was conducted on 823 married women in reproductive age (15-49 years). Data were collected through a structured interview questionnaire sheet. The sample size was estimated according to the standard Egypt Demographic and Health Survey 2008 important risk factor affecting unmet need of family planning. Results: the prevalence of unmet need for contraception was 15.7%. The percentage of illiteracy was higher in the women with unmet need and their husbands (22.5% and 28.7% respectively) compared to women with unmet need. The percentage of working husbands was higher among contraceptive users (97.9%). Family planning counselling was lower in women with unmet need (42.3%). Shared decision taking of contraception between women with unmet need and their husbands was lower than contraceptive users (48.1%). The main reasons for never using any family planning methods were the fear of the side effects in 25%, women and husband disapproval in 21.9% of them. Reasons for discontinuation of using contraceptive methods were the experience of side effects (59.4%) and method failure (15.5%). Conclusion: The rate of unmet need for family planning is still high. Family planning services must be more explicit and purposeful in their efforts to address low knowledge levels and health concerns among current and potential users. Husband involvement in family planning counseling should be considered.

Keywords: Family planning, Contraception, Egypt

### Introduction

The unmet need for family planning is defined as the discrepancy between individual's contraceptive behaviors and their stated fertility preferences; it can be also defined as the use of no contraceptive method despite sexual exposure and an expressed desire to avoid pregnancy<sup>(1)</sup>. It is estimated that over 200 million couples do not use contraception despite their desire to space or limit their births. Reasons for this include limited choice of methods, limited access to contraception particularly among young people, poorer segments of populations, fear or experience of side effects, cultural or religious opposition, poor quality of services available, and gender based barriers<sup>(2)</sup>. Until recently, the role of men who highly influence the family's decision making process have been ignored<sup>(3)</sup>. Most family planning methods effectiveness and continuous use remain unsuccessful owing to lack of approval of the husbands<sup>(4)</sup>. Methods that require male involvement such as condoms, periodic abstinence, withdrawal and vasectomy are used less often <sup>(5)</sup>. Contraceptive use levels were more than doubled in Egypt between 1980 and 2003, from 24% to 60% and remained stable till 2008. According to Egypt demographic health survey 2008 Egypt unmet need of contraception is 9.8%<sup>(6)</sup>. Since the magnitude of the unmet need of contraception and its underlying reasons have not been studied before in Ismailia rural areas, this study was conducted in Nefesha village in Ismailia Governorate being one of the largest rural areas in Ismailia and one of the least rated concerning the use of contraception. This study aimed at determining the prevalence of the unmet need of family planning among married women in the child bearing period (15-49 years) in Nefesha Village in Ismailia and identifying the determinants of unmet need of family planning.

## **Subjects and Methods**

A cross-sectional study was conducted in Nefesha village in Ismailia Governorate. It was selected from twelve rural areas of Ismailia as it is one of the largest rural areas of Ismailia and one of the least contraceptive prevalence rate 34.7% (2010). The total number of population of Nefesha is 18636, and the number of women in reproductive age (15-49 years) is 3106 women (2011).

*Target population:* Married, fertile women aged 15-49 years (reproductive age) living in Nefesha village. Women were selected by systematic random sample method. The following women were excluded from the study; infertile women, menopausal women, those who had a hysterectomy, pregnant and postpartum women who became pregnant unintentionally due to contraceptive method failure were excluded from the study <sup>(7)</sup>. (Note: In this survey, infertile women were defined as those have been married for five or more years and have not had a birth in the past five years, and not currently pregnant and have not used contraception within the preceding five years).

Sample size: The required sample size was calculated based on EDHS 2008. Taking method related risk factor among females in the reproductive age (15-49) as an important risk factor affecting unmet need of family planning. This factor was estimated to be 28.3% <sup>(6)</sup>. The required sample size calculated based on using Epi-info with 95% confidence level and target population is 3106 the number of sample size was 748 women. When the expected non-response rate was considered 10% based on similar studies the number of participants was 823 women.

Data collection tools: A structured interview questionnaire was designed to collect data related to unmet need of contraception and related risk factors. The questionnaire was filled out by interviewing the women in their households after explaining the aim of the study which included Socio-demographic data, Reproductive data, Family planning Knowledge, sources, services and intentions.

*Pilot study:* After construction of the questionnaire the pilot was conducted randomly on 25 fertile married women in El-Herafy in Ismailia to test the feasibility of the questionnaire and to identify any problems related to sequence and clarity of the questions. The pilot study helped in estimating the time needed to fill the questionnaire, and showed that the questions were clear and relevant, but some questions were modified and rewritten to increase clarity with changing the sequence of some questions like question number 15 before question number 16 and to add don't know choice in the answers

of questions number 23, 27 and adding choice of according to doctor recommendation in the answers of question number 50.

Data collection: Using the map of Nefesha village, the number of household was 3694 and the sample size was 823 women. It was expected there would be at least one eligible married woman in each household. The households were numbered from 1 to 3694, The "K" interval for the systematic sampling was 3694/823= 4. Every 4th household was visited after selecting the first household to be visited randomly. Three visits were done to check for the closed households. In case there were two or more eligible women in the household, one was selected randomly to be included. However, for ethical reasons the other woman in the households answered the questionnaires and took any requested help. Only one woman refused to be included in the study with a response rate of 99.9%. The questionnaire was filled out via interviews.

Data Management: All relevant data for each individual study subject were coded and revised, SPSS software program version 13 was used for data entry and analysis. Descriptive statistics in the form of rates and frequencies was used to describe data in the form of tables and graphs whenever appropriate. Chi-square test was used to compare categorical variables. Student's t-test was used to compare parametric quantitative data.

Ethical considerations: An official permission was obtained from the research ethics committee from Faculty of Medicine Suez Canal University.

#### Results

The met, unmet need and no need for contraceptive methods represented 69.7 %, 15.7% and 14.6% respectively. (Figure 1). About thirty percent (30.3%) among the

women with met need and (31.8%) with unmet needs wanted to space their next birth. About 70 percent (69.7%) among the women with met need and (68.2%) with unmet need wanted to limit their births which was statistically significant different P value <0.05. (Figure 2). The mean age of unmet need women was significantly higher than women with met need (32.5 and 34.6 respectively). the percent of illiteracy was significantly higher for unmet need group than for met need (16.2% and 22.5% respectively) while the percent of secondary and higher education of wives was significantly higher for met need group than for unmet need (62.7% and 48.1% respectively). Most of women weather having met or unmet need were not working (85.9% and 90.7% respectively). Husband illiteracy was significantly higher among the husband of women with unmet need than met one (28.7% and 13.2% respectively). And the husbands that were not working were significantly higher among the husband of unmet need than met one (10.9% and 2.1% respectively) and these differences were statistically significant P value <0.05. (Table 1). Most women in both groups agreed with their husband about the desired number of children, with no significant difference between the two groups. (Table 2). The shared decision taking of family planning was significantly higher in women with met need than unmet need (57.7% and 48.1% respectively) while the unmet need group had family planning decision taken by themselves only or by their husbands only more than met group with significant difference <0.05. There was no difference between women with met and unmet need regarding their husband previous use of family planning method. And most them refused to use male contraception with no statistically significance difference P> 0.05 (Table 2). There was statistically significance difference between women with unmet need and met need regarding their husbands reasons of refuse to use male contraception, uncomfortable method was (10.2% and 3.6% respectively), wife herself refused that her husband use this method (4.5% and 0%) while religious reasons (0% and 1.7% respectively) (Table 3).



Figure 1: Overall contraceptive needs of the surveyed women N= (823)



Figure 2: Contraceptive users (met need) and unmet need for family planning according to their fertility preferences (N =574 Met & 129 Unmet)

Most women in both groups considered the ideal age of conception between 20-29 years and three children as the ideal number of children with no statistically significance difference P> 0.05. The highest percent of unmet need considered the ideal spacing time between children as 2 years (51.6%) while the highest percent of met need groups considered it more than two years (47.2%) with significant difference P< 0.05. Regarding their knowledge of contraception, the mean number ± standard deviation of method known in both groups was 7±2 (Table 4) Primary health care units represented major source of knowledge of contraceptive methods for both groups. Knowledge about Doctor's clinic as source of contraception was not statistically significant. On the other hand, other sources of contraception known in unmet need women was statistically significant lower than met

need women p value <0.05(Table 5). The women with met need mentioned that they were outreached by mobile vans more than unmet need (50.9% and 32.6% respectively) while there were more women with unmet need than met need mentioned they do not know if there was mobile vans outreach (22.4% and 6.2% respectively) a difference that was statistically significant p value < 0.05 (Table 6). Most women who went to family planning services in both groups went by traffic transport and took less than 1 hour to reach. Contraceptive services were available for the two groups and mean of cost was regyptian pound that was affordable for them. There was health education counseling for women with met need more than women with unmet need (64.6% and 32.3% respectively) that was statistically significant difference p value < 0.05. (Table 6). Young women with fewer children were more interested in contraception and for spacing than old women with high parity who were more concerned with limiting with statistically significant difference p value<0,05. (Table 7). As regard to pregnancy status of women with unmet need (72%) were not pregnant or amenorrhoeic while (18.7%) of them where pregnant and (9.3%) were amenorrhoeic. (Figure 3). As regard to contraceptive use, (75.2%) of women with unmet need had previously used a method of contraception and (24.8%) of them had never used any method of contraception. (Figure 4). Most of limiters were not pregnant or amenorrhoeic representing (81.8%) of limiters. while nearly half of spacer were not pregnant or amenorrhoeic representing (51.2%) of spacers with statistically significant difference p value<0, 05 (Table 9).

| Socio-demographic characteristics | <b>Met</b><br>No. (%) | <b>Unmet</b><br>No. (%) | p-value         |
|-----------------------------------|-----------------------|-------------------------|-----------------|
| Age                               | 32.5 ± 6.7            | 34.6 ± 7.1              | < 0.05 (T-test) |
| Education:                        |                       |                         |                 |
| Illiterate                        | 93 (16.2)             | 29 (22.5)               |                 |
| read and write                    | 40 (7.0)              | 16 (12.4)               | Chicquara       |
| primary education                 | 81 (14.1)             | 22 (17.1)               |                 |
| secondary education               | 298 (51.9)            | 54 (41.9)               | < 0.05          |
| higher education or more          | 62 (10.8)             | 08 (6.2)                |                 |
| Working status:                   |                       | -                       |                 |
| do not work                       | 493 (85.9)            | 117 (90.7)              | Chi-square      |
| work                              | 81 (14.1)             | 12 (9.3)                | > 0.05          |
| Husband education:                |                       |                         |                 |
| illiterate                        | 76 (13.2)             | 37 (28.7)               |                 |
| read and write                    | 45 (7.8)              | 12 (9.3)                | Chiasuara       |
| primary education                 | 104 (18.1)            | 19 (14.7)               | Chi-square      |
| secondary education               | 284 (49.5)            | 45 (34.9)               | < 0.05          |
| higher education or more          | 65 (11.3)             | 16 (12.4)               |                 |
| Husband's occupation:             |                       |                         |                 |
| don't work                        | 12 (2.1)              | 14 (10.9)               | Fisher's Exact  |
| work                              | 562 (97.9)            | 115 (89.1)              | < 0.05          |

| Table 1: Socio-demographic characteristics of contraceptive users (n | net) and unmet need |
|--|---------------------|
| (N =574 Metand 129 Unmet)  |                     |

The women with unmet need for limiting believed more than women with unmet need for spacing that they were unlike to become pregnant (59.1% and 29.3% respectively). On the other side, the women with unmet need for spacing intended to use

contraception more than for limiting (53.7% and 23.9% respectively) with statistically significant difference p value<0,05. (Table 8). About (34.4 %) of women believe they were unlikely to become pregnant due to irregular menses. (Table 9).

**Table 2:** Attitude of the husband of met and unmet group toward family planning (FP) (N =574 Met and 129 Unmet)

| The Attitude:                        | Met              | Unmet     | p-value    |
|--------------------------------------|------------------|-----------|------------|
|                                      | NO. (%)          | NO. (%)   |            |
| Couples agreement about desired nur  | nber of children | 1         |            |
| Agreed                               | 424 (73.9)       | 95 (73.6) | Chi squara |
| husband wants more                   | 94 (16.4)        | 21 (16.3) | Chi-square |
| wife wants more                      | 56 (9.8)         | 13 (10.1) | >0.05      |
| Who took the decision for FP         |                  |           |            |
| The wife                             | 230 (40.1)       | 55 (42.6) | Chi savana |
| Together                             | 331 (57.7)       | 62 (48.1) | Chi-square |
| The husband                          | 13 (2.3)         | 12 (9.3)  | < 0.05     |
| Husband previous use of family plann | ing method       |           |            |
| Yes                                  | 119 (20.7)       | 18 (14)   | Chi-square |
| No                                   | 455 (79.3)       | 111 (86)  | >0.05      |
| Husband can accept to use male contr | aceptive method  |           |            |
| Yes                                  | 142 (24.7)       | 29 (22.5) | Chi savana |
| No                                   | 360 (62.7)       | 88 (68.2) | Chi-square |
| The wife did not know                | 72 (12.5)        | 12 (9.3)  | >0.05      |

 Table 3: Reasons of husband refusal to use male contraception (N =574 Met and 129 Unmet)

| Refuse causes                             | <b>Met</b><br>No. (%) | <b>Unmet</b><br>No. (%) | p-value  |
|---|-----------------------|-------------------------|----------|
| Unacceptable                              | 117 (32.5)            | 19 (21.6)               |          |
| Religious reason                          | 6 (1.7)               | 0(0)                    |          |
| Unsafe method                             | 13 (3.6)              | 9 (10.2)                | Fisher's |
| Uncomfortable method                      | 144 (40)              | 36 (40.9)               | Exact    |
| She did not know the method or the reason | 80 (22.2)             | 20 (22.7)               | < 0.05   |
| she disagreed                             | 0 (0)                 | 4 (4.5)                 |          |
| Total                                     | 360                   | 88                      |          |

Sixty three percent of women who didn't intend to use family planning because they perceived that they are unlike to become pregnant while (19.8%) fear from the side effect (Table 10). Of those who intend to use family planning in the future, (45.7%) of previous users intend to use it after resuming menstruation, (28.6%) after subside of side effects and (17.1%) after completing breast feeding. On the other hand, (75%) of never users intend to use it after completing breast feeding while (25%) after resuming menstruation (Table 11). The most common causes of discontinuation of previous users are side effects experienced by the women or method failure representing (53.6% and 15.5% respectively). (Figure 6). The main reasons for not using contraceptive method for never users were fear of side effects then husband disapproval then the medical problems representing (25%, 21.9%, and 18.8% respectively) (Table 12)

#### Discussion

Family planning and birth control officially introduced in Egypt more than fifty years ago, however family planning programs did not achieve any progress in the last decade, although the Contraceptive use levels more than doubled in Egypt between 1980 and 2003, from 24 percent to 60 percent, it remains stable at 60 percent and no progress has been made to address the gaps in unmet need that was slightly decreased from 11% in 2000 to 9.2% in 2008 and this can affect achieving the national targets for 2017 to reach fertility level of 2.1 child per woman so this study aimed to determine unmet need level and factors affecting it. A total of 823 married women were surveyed in this study in Nefesha village in Ismailia to identify the prevalence and risk factors of unmet contraceptive need among married women in the childbearing period, only one woman refused to be included in the study as she was infertile and most of women were

cooperative and the questions were suitable for most of them and time of the interview took about 8 minutes and it was suitable for 98.1% of women. The current study revealed that contraceptive users represented 69.7 % of the total surveyed women. This was lower than 75.2% in Marg district slum area of Cairo governorate in 2004<sup>(8)</sup>, and 81.8% in 2011<sup>(9)</sup>. On the other hand, it was higher than the national level 60% and regional level 56.5% in Ismailia which indicate that family planning made a progress to increase contraceptive use level. The unmet need for family planning represented 15.7 %, which was higher than the national level 9.2% reported by EDHS 2008 <sup>(6)</sup>, and in 2004 and 2011 in Elmarg District slum area in Cairo that was (13.6% and 7.4%) respectively (8,9). This means that although contraceptive use level was increased there is increase in the percent of women who need to limit or space their birth and unmet. As regarding to preferences of contraceptive users 30.3% of them were spacing and 69.7 % were limiting. And among women with unmet need 31.8 % wanted to space their next birth and 68.2% wanted to limit.

| FP knowledge                       | <b>Met</b><br>No. (%) | <b>Unmet</b><br>No. (%) | p-value        |
|------------------------------------|-----------------------|-------------------------|----------------|
| Ideal age for conception:          |                       |                         | •              |
| 15-19                              | 40 (7)                | 15 (11.6)               | Fisherls Exact |
| 20-29                              | 531 (92.5)            | 114 (88.4)              |                |
| 30-40                              | 3 (0.5)               | 0(0)                    | > 0.05         |
| Ideal number of children:          |                       |                         |                |
| One                                | 3 (0.5)               | 0(0)                    |                |
| Two                                | 183 (31.9)            | 48 (37.2)               | Fisher's Exact |
| Three                              | 285 (49.7)            | 62 (48.1)               | > 0.05         |
| Four                               | 91 (15.9)             | 16 (12.4)               |                |
| Five                               | 12 (2.1)              | 3 (2.3)                 |                |
| Ideal spacing:                     |                       |                         |                |
| 2years                             | 209 (36.4)            | 66 (51.6)               | Chi cauara     |
| More than 2                        | 271 (47.2)            | 43 (33.6)               |                |
| Less than 2                        | 94 (16.4)             | 19 (14.8)               | < 0.05         |
| Number of EP methods the wife know | 7 + 2                 | 7 + 2                   | T-test         |
| Number of FF methods the whe knew  | / ± 2                 | / ± 2                   | > 0.05         |

**Table 4:** Contraceptive users and unmet need per knowledge of family planning (FP) (N =574 Met and 129 Unmet)

This was near to the results of other studies in Cairo and Benha city<sup>(8,10)</sup>. Also, this was in agreement with EDHS (2008) that the level of unmet need for limiting births was two-thirds of the total unmet need and the rest was for spacing births <sup>(6)</sup>. Regarding the comparison between contraceptive users and women with unmet need in level of education and occupation, the percentage of illiteracy was significant higher for the unmet need group than for the met need (22.5% vs. 16.2%), while the percent of secondary and higher education was significantly higher among the contraceptive users. than the women with unmet need (62.7% vs. 48.1%).

| Tuble J. contraceptive users and animet need according to knowledge of family planning |            |            |         |
|--|------------|------------|---------|
| Source of knowledge of FP:   | Met        | Unmet      | P value |
|  | No. (%)    | No. (%)    |         |
| PHC unit*  | 266 (46.3) | 60 (46.5)  | > 0.05  |
| Doctor or nurse*   | 102 (17.8) | 7 (5.4)    | < 0.05  |
| TV or radio*   | 252 (43.9) | 31 (24)    | < 0.05  |
| Relatives*   | 227 (39.5) | 64 (49.6)  | < 0.05  |
| Others <sup>@</sup>  | 16 (2.8)   | 0(0)       | 0.05    |
| Source of service of FP known:   |            |            |         |
| PHC unit <sup>@</sup>  | 560 (97.6) | 114 (88.4) | < 0.05  |
| Doctor clinic*   | 304 (53)   | 57 (44.2)  | > 0.05  |
| Hospital*  | 352 (61.3) | 47 (36.4)  | < 0.05  |
| Pharmacy*  | 199 (34.7) | 26 (20.2)  | < 0.05  |
| Medical convey*  | 170 (29.6) | 18 (14)    | < 0.05  |
| Others <sup>@</sup>  | 10 (1.7)   | 0(0)       | > 0.05  |

| Table 5: Contraceptive users an | d unmet need according t | to knowledge of family planning |
|---------------------------------|--------------------------|---------------------------------|
|                                 |                          |                                 |

\*= Chi-square; @= Fisher's Exact, FP= family planning; N =574 Met and 129 Unmet

This finding agreed with EDHS (2008) and other studies in Benha city in 2012 and Elmarg district 2004<sup>(10,8)</sup>. This may be because educated women are better informed about various methods, availability and have greater access to family planning. On the other hand, in Elmarg district 2011, there was no significant difference between the two groups which was explained by the investigator to be due to comprehensive family planning services. In most studies the unmet need declined with increasing women's education for instance in Eastern Sudan it was significantly higher among women with less than secondary education<sup>(11)</sup>, and in India it was highest in illiterate group<sup>(12)</sup>, also same results found in Butajira District, South Central Ethiopia<sup>(13)</sup>. Choudhary in 2011found that women's education exerts a powerful influence on unmet need<sup>(14)</sup>. As regards to the working status of the

women, it was not significantly different between contraceptive users and women with unmet need (14.1% and 9.3%) respectively this was consistent with studies in Cairo (2004) and (2011)<sup>(6,9)</sup>, but was not in agreement with what was found in Benha 2012 that the percentage of working women was higher between contraceptive users than women with an unmet need (23.5% and 16.7% respectively)<sup>(10)</sup> as our study conducted in rural area where percent of working women was low to show the effect on family planning use. Regarding husband education, illiteracy rate was significantly higher among husbands of women with unmet need than those with met need (28.7% and 13.2% respectively). This was consistent with studies conducted in Sudan 2013 and Butajira District, South Central Ethiopia 2011, that lower husband and women education were associated with unmet need (13,11).

|                             |            | 0                 | •            |
|-----------------------------|------------|-------------------|--------------|
|                             | Met        | Unmet             | n valuo      |
|                             | No. (%)    | No. (%)           | p value      |
| Outreach by mobile vans:    | N=574      | N=129             |              |
| Yes                         | 292 (50.9) | 42 (32.6)         | Chi-square   |
| No                          | 246 (42.9) | 58 (45.0)         | < 0.05       |
| Don't know                  | 36 (6.2)   | 29 (22.4)         |              |
|                             | N= 568*    | N=97*             |              |
| Method of transportation:   |            |                   |              |
| Walking                     | 66 (11.6)  | 9 (9.3)           | Chi-square   |
| Traffic                     | 502 (88.4) | 88 (90.7)         | > 0.05       |
| Time to reach service:      |            |                   |              |
| <1hour                      | 520 (91.5) | 88 (90.7)         | Chi-square   |
| >1hour                      | 48 (8.5)   | 9 (9.3)           | > 0.05       |
| Cost of comvice in LT       | 4 1 0 7 4  | 4 4 9 26          | Mann-Whitney |
| Cost of service III LE      | 1±0.34     | 1±0.30            | >0.05        |
| Cost as viewed by the wife: |            |                   |              |
| Affordable                  | 493 (86.8) | 82 (84.5)         | Chi-square   |
| Expensive                   | 75 (13.2)  | 15 (15.5)         | > 0.05       |
| Availability of service:    |            |                   |              |
| Yes                         | 513 (90.3) | 82 (84.5)         | Chi-square   |
| No                          | 55 (9.7)   | 15 (15.5)         | > 0.05       |
| Counseling before use:      |            |                   |              |
| Yes                         | 367 (64.6) | 41 (42. <u>3)</u> | Chi-square   |
| No                          | 201 (35.4) | 56 (57.7)         | < 0.05       |

Table 6: How family planning services utilized be by met and unmet group

\*excluding women who never used modern contraceptive methods (women who use traditional methods in met group and women who never used contraception in unmet need group) (N =574 Met and 129 Unmet).

| Table 7: Characteristics of women with unmet need according to fertility preference | 5 |
|---|---|
| by age and number of children (N=129)   |   |

| Background characteristics | Spacers   | Limiters  | P-Value    |
|----------------------------|-----------|-----------|------------|
| Age                        |           |           |            |
| 15-24                      | 13 (31.7) | 1 (1.1)   | Chi cauara |
| 25-34                      | 17 (41.5) | 21 (23.9) | Chi-square |
| 35-45                      | 11 (26.8) | 66 (75)   | <0.05      |
| total                      | 41        | 88        |            |
| No. children               |           |           |            |
| 1                          | 18 (43.9) | 3 (3.4)   |            |
| 2                          | 12 (29.3) | 24 (27.3) | Chicquara  |
| 3                          | 8 (19.5)  | 20 (22.7) | Chi-square |
| 4+                         | 3 (7.3)   | 41 (46.6) | <0.05      |
| Total                      | 41        | 88        |            |

This may because educated men help their wives to adopt contraception through shared decision taking. Percent of working husbands was significantly higher among the contraceptive users than unmet need (97.9% vs. 89.1%). And this was consistent with study conducted in Cairo in 2009, that the percent of nonworking husbands was significantly higher in women with unwanted pregnancy<sup>(15)</sup>. This may be explained that working men help their wife's have better access to contraceptive alternatives that may not be available in primary health care units.



Figure 3: Distribution of women with unmet need according to pregnancy status (N=129).



**Figure 4:** Distribution of women with unmet need according to previous use of contraception (Total N=129, 97 and 54 respectively).

|                                       | <b>Spacers</b><br>N=41 | Limiters<br>N=88 | p value    |
|---------------------------------------|------------------------|------------------|------------|
| Perceived risk of pregnancy           |                        |                  |            |
| Believe she may become pregnant       | 29 (70.7)              | 36 (40.9)        | Chi-square |
| Believe she unlike to become pregnant | 12 (29.3)              | 52 (59.1)        | < 0.05     |
| Intention to use FP                   |                        |                  |            |
| Intend                                | 22 (53.7)              | 21 (23.9)        | Chi-square |
| not intend                            | 19 (46.3)              | 67 (76.1)        | < 0.05     |

**Table 8:** Distribution of women with unmet need according to fertility preferences by perceived likelihood to be pregnant (Total N=129).

As regards the attitude of women toward family planning, it was found that most women of both groups agreed with their spouses about the desired number of children which was consistent with that found in Benha city  $(2012)^{(10)}$ , and in Cairo  $(2009)^{(15)}$ . This should be an important point for family planning decision making

as if they succeeded to satisfy the need of these women will not be opposed by their husbands. Non-discussion of family planning between husband and wife has been found to be associated with unmet need. The shared decision taking of family planning was significantly higher among women with met need than unmet need (57.7% vs. 48.1%).

| Causes of believe to be unlike to gain pregnancy | Frequency | Percent |
|--|-----------|---------|
| Old age  | 10        | 15.6    |
| No regular intercourse                           | 22        | 29.7    |
| No intercourse                                   | 3         | 4.7     |
| Breast feeding                                   | 4         | 6.2     |
| irregular menses                                 | 22        | 34.4    |
| their pregnancy is hard to occur                 | 6         | 9.4     |
| Total  | 64        | 100     |

**Table 9:** Distribution of women who believe they are unlike to become pregnant according to causes (N =64)

Table 10: Reasons of unintention to use FP

| Causes of no intention to use FP | Frequency | Percent |
|----------------------------------|-----------|---------|
| Fear of side effects             | 17        | 19.8    |
| Husband disapproval              | 6         | 7.0     |
| Didn't know what to use          | 9         | 10.5    |
| Difficult to be pregnant         | 54        | 62.7    |
| Total                            | 86        | 100     |

**Table 11:** Distribution of women with unmet need according to previous use of family planning methods by when to start using (N=43).

|                                | Previous users | Never used | Total |
|--------------------------------|----------------|------------|-------|
| When to start family planning  |                |            |       |
| After having another child     | 3 (8.6)        | 0 (0)      | 3     |
| After completing breastfeeding | 6 (17.1)       | 6 (75)     | 12    |
| When menses return             | 16 (45.7)      | 2 (25)     | 18    |
| When get rest from side effect | 10 (28.6)      | 0 (0)      | 4     |
| Total                          | 35             | 8          | 43    |

This was consistent with other studies, that deficient interposal communication about contraceptive use and the desired number of children was an important risk factor for unmet need<sup>(8,13)</sup>. Also in Cairo 2011 non-discussion of the desired number of children was a more important risk factor for unmet need than disagreement of the number of children<sup>(9)</sup>. The number of methods known by a woman did not significantly differ by need for family planning, while known sources and source of knowledge of contraception in women with unmet need was statistically significant lower than with met need. These findings agreed with other studies conducted in Egypt in Cairo and Benha<sup>(8,9)</sup>. Also, EDHS2008 showed that knowledge of family planning methods is universal among married women in Egypt, and comparing data in EDHS 2008 and 2005, showed a clear decline in exposure to family planning messages, regardless of source. There was no significant difference between two groups regarding access, availability and affordability of contraception services. While the outreach by mobile vans were statistically significant higher in women with met than unmet need (50.9% vs. 32.9%). This was consistent with Ahmed (2012) in Benha city, who found most women of the studied group 70% complain of the absence of outreach mobile van of family planning (10,9).



**Figure 5:** Distribution of the group of unmet need for family planning who discontinued use of family planning because of discontinuation of the last method used

| Reason for never use of family planning | Frequency | %    |
|---|-----------|------|
| Fear of side effect                     | 8         | 25   |
| Medical problems                        | 6         | 18.8 |
| Lack of knowledge what to use           | 3         | 9.4  |
| lack of source knowledge                | 0         | 0    |
| costly                                  | 0         | 0    |
| husband disapproval                     | 7         | 21.9 |
| relative disapproval                    | 1         | 3    |
| lactating                               | 4         | 12.5 |
| difficult to be pregnant                | 3         | 9.4  |
| Total                                   | 32        | 100  |

**Table12:** Causes of never use of family planning among the women with unmet need

Health education counseling was statistically significant higher in met need than women with unmet need (64.6% vs. 32.3% respectively). Sedgh et al, (2007) showed that counseling and education help women to sustain contraceptive use. It is not sufficient to supply contraceptives without providing adequate services and counseling<sup>(16)</sup>. Husbands of both groups never used male contraception previously and refused to use male contraception in the future with no significant difference. The cause for refusal was statistically significant different in both groups, the most common cause for both groups was considering it as uncomfortable method but in the unmet need group they didn't knew the method or they saw it unsafe. method and rejection from partner were more than met need group. And this agreed with EDHS 2008 that only small percent 1% use male contraception. Also, agreed with a study for the Know-ledge, Attitudes and Practice of Condom Use in 4 governorates in Egypt where Only 23.9% had ever used condoms, perceived lack of need (75.7%), rejection by partner (57.6%) and hazards of condoms (31.9%)<sup>(17)</sup>. This confirms the importance to include husbands in family planning programs policies to change their false knowledge and intentions. The ideal spacing between children was different between two groups (33.6%) of women with unmet need considered it more than 2 years compared to (47.2%) of women with met need. This disagreed with studies performed in Benha city 2012 and Ain shams university hospital 2009, where the higher percent of both groups thought that 3-5years is the ideal spacing with no significant difference<sup>(10,15)</sup>. This may be due to the deficiency of health education in our study for women with unmet need. Regarding family opposition 15.8% of women had a family member opposing their use of contraception that was mostly by their husband followed by their mother then mother in low. This agrees with study in 2010 in India where 15.6 % was opposed from their husbands and mother in low<sup>(12)</sup>. Also in the rural southern region of Jordan (2010), 21.8% reported opposition from husband<sup>(18)</sup>. And 22% opposed from their husbands in Marg study (2011)<sup>(9)</sup>. In Gwalior district, women whose husbands approved the use of contraception were having less unmet need than women their husbands disapproved<sup>(19)</sup>. This illustrates that even in different cultures societal opposition specially husband play an important factor in contraceptive use and can drive women to have unmet need so family planning program should include men to prevent future unmet need. Unmet need for limiting appeared to increase with age, while unmet need for spacing declined sharply. This is consistent with the findings of the EDHS (2008) in which women in need for spacing births were younger (under age 30) than women in need for limiting who were in the 30-39 age group and that most women in need for spacing had small families and more than one-quarter of women in need for limiting have six or more children<sup>(6)</sup>. Also, this finding is consistent with other studies. This is because older women are likely had completed their desired number of children while younger women had not<sup>(10,12)</sup>. Pregnant and amenorrhoeic with unmet need rep-

resented 28%. This was near to other studies conducted in Egypt 35% reported in Benha city (2012) (10) and 22% in Cairo (2004)<sup>(8)</sup>. Also, Westoff and Bankole in (1995), identified an average of about onethird of all women with unmet need as pregnant or amenorrhoeic <sup>(20)</sup>. This indicate that high percent of women with unmet need gained unwanted pregnancy. Previous contraceptive use (75.2%) was similar to proportion of ever use in Egypt  $(79\%)^{(6)}$  And that was found in Cairo (2010) 73%<sup>(9)</sup>. This indicate that many women with unmet need, at some point at their reproductive life were willing to use contraception this confers heath care providers with an important tool to identify women who are at risk of having future unmet need. Limiters believe more than spacers that were unlike to become pregnant (59.1% and 29.3% respectively) and this difference was statistically significant this explained by the fact that most limiters are in the older age group than spacers, thus, they perceive themselves as sub fecund or premenopausal. And it was consistent with results of (2004) in Cairo<sup>(6)</sup>, and in Kuwait in 2004<sup>(21)</sup>. with contrast to Cairo results (2011), and Benha city (2012), as they found no statistically significant difference between them<sup>(9,10)</sup>. This because the number of women with unmet need for limiting in these studies was lower than our finding. Most of Women who perceived they unlike to become pregnant 34.4 % of them had this perception due to irregular menses, followed by irregular intercourse 29.7% and subfecundity 15.6% with EDHS 2008 and most of other studies<sup>(6,8)</sup>. So, health education will help these women to adopt contraception. Regarding intention to use contraception 53.7% of women with unmet need for spacing intended to use contraception compared to 23.9% of women with unmet need for limiting. This confirm that women with unmet need for limiting perceive that they unlike to gain pregnancy this was lower than the level in Marg (2004), where 80% of spacers and 50.9% of limiters intended to use contraception in the future<sup>(8)</sup>. This is mostly due to deficient health education in our study. Also, this was partly different from Benha study (2012) where women who had an unmet need for contraception and intended to use contraception in the future represented 71.6 % (56.5% of spacers and 81% of limiters)<sup>(10)</sup>. This may be due to that in our study limiters were more statistically significant higher in their perception of being unlikely to get pregnant than spacer. So, family planning programs should continue outreaching to women who intend to use contraception and meet their need with more health education that was an important deficient factor for unmet need women in our study especially for those with limiting need to change their false perceptions. The main reason for nonusers who did not intend to use in the future are of interest to the family planning program since they help to identify areas for potential interventions to support the adoption of contraception by nonusers. In this study 62.7% of women perceived that they are unlike to become pregnant while 19.8 % feared from the side effect and 10.5% didn't know what to use while only 7% husband opposition. That was supported by EDHS 2008 as around threequarters of nonusers had various fertilityrelated reasons for not planning to adopt contraception. These reasons included a perceived lack need for contraception. While 10% had health concerns and 7% fear of side effects<sup>(6)</sup>. The differentiation between previous users of contraception and never users is important because family planning services needed by each group may differ. In this study, previous users constituted a higher percentage of the unmet need category than the never users; (81.4% and 18.6% respectively). This

was consistent with ever use in EDHS 2008 was 79% <sup>(6)</sup>, also previous users represented 73% in Cairo (2010)<sup>(9)</sup>. In South Central Ethiopia (2011) more than half were previous users<sup>(13)</sup>. This agreed also with Benha study (2012) where a higher percentage of the unmet need were previous users than the never users (75% and 25% respectively)<sup>(10)</sup>. In our study among previous users who intend to use contraception, 45.7% intend to use it after resuming menstruation, 28.6% after subside of side effects and 17.1% after completing breast feeding. On the other hand, for women who intend to use contraception from never users, 75% after completing breast feeding while 25% after resuming menstruation. In comparison to Ahmed (2012) (33.3%) of previous users of F.P intend to use after last used method side effects subside and (33.3%) of never used intend to use it after completing desired number of children<sup>(10)</sup>. The reasons for discontinuation of contraceptive methods were mainly due to experience of side effects or method failure representing (53.6% and 15.5%). This agreed with study of Cairo (2004) and Benha city (2012) who found that the reasons for discontinuation of contraceptive methods were menstrual problems, medical problems, method failure and they desire for another  $child^{(8,10)}$ . This also agreed with EDHS2008 where the highest rates of discontinuation were for women who had experienced side effects. Also in our study, there was higher percent of method failure15.5% than that was found in EDHS 2008 and Benha study (2012) which was (3% and 7% respective-Iy)<sup>(6,9)</sup> which indicate the need for more training of health care providers and more health education on how to use the contraceptive method. The main reasons for never use of contraception were fear of side effects followed by husband disapproval and the medical problems representing (25%, 21.9%, and 18.8% respectively). In Benha (2012) the main reasons were current lactation and fear of side effects by  $33 \%^{(10)}$ . In Ein shams university hospital, the most common reason stated for this was fear of side effects  $32.6\%^{(15)}$ . Health education and providing better quality of service can prevent this fear.

### Conclusion

Unmet need for contraception is one of several frequently used indicators for monitoring family planning programs and we can conclude from this study that the rate of unmet need for family planning is still high. The following recommendations are suggested to decrease the rate of unmet need:

- Community leaders should focus on illiterates or low educated women and higher risk older women with unmet need since their low knowledge and false perception to be unlikely to get pregnancy.
- Increase health education sessions about importance of reproductive health and spacing between pregnancies at family planning centers and Medical staff should be instructed to give counseling about how to use the method, possible side effects, how to deal with it, what are the alternatives and when to seek medical advice
- Husband should be involved in family planning counseling and health education specially who are low educated and not working. Also, a positive attitude and shared discussion with husband toward family planning is very important for encouraging wife to use contraception and achieve their shared reproductive goals.
- For women who discontinued use of contraception it is required putting more effort into screening and counseling of users on what is more ap-

propriate for them and range of choices should be expanded so women are offered the opportunity to switch between methods rather than discontinue.

 Services of family planning need to continue outreach women with unmet need who intend to use contraception in the future to meet their need even if they do not have unmet need for service.

### References

- Ross JA, Winfrey WL. Unmet need for contraception in the developing world and the former Soviet Union: an updated estimate. International Family Planning Perspectives 2002; 28 (3):138-43.
- 2. World health organization. Family planning. Online access at (April 2011). http://www.who.int/mediacentre/fact sheets/fs351/en/index.html.
- Adewuyi A, Ogunjuyigbe P. The role of men in family planning: An examination of men's knowledge and attitude to contraceptive use among the Yorubas. African Population Studies. 2003; 18(1): 35-49.
- 4. Isiugu-Abanihe UC. Reproductive motivation and family size preferences among Nigerian men. Studies in Family Planning. 1994; 25(3):149-161.
- 5. Ezeh AC, Seroussi M, Raggers H. Men's fertility, contraceptive use and reproductive preference. Demographic and Health Survey, Comparative Studies No. 18 Maryland: Macro International Inc, 1996.
- 6. El-Zanaty F, Way A. Egypt Demographic and Health Survey 2008. Cairo, Egypt: Ministry of Health, National Population Council, and Macro International 2009.
- 7. United Nations. Department of economic and social affairs population division. World contraceptive use 2011.
- 8. Klima CS. Unintended pregnancy. Consequences and Solutions for a

Worldwide Problem. J Nurse Midwifery. 1998; 43(6): 483–91.

- Khotb MM, Bakr I, Ismail N, Arafa N, El-Gewaily M. Women in cairo, Egypt and their risk factors for unmet contraceptive need: a community-based study. J Fam Plann Repord Health Care 2011; 37 (1):26-31
- El- Gendy SD, Dawah AY, Afify RH, El-Taher S, Ahmed RO. Epidemiological Study of the Unmet Need for Contraception In Benha City. J Am Sci, 2012; 8(5). http://www.jofamericanscience .org/ journals/am-sci/amo805/
- 11. Ali AA, Okud A. Factors affecting unmet need for family planning in Eastern Sudan. BMC Public Health 2013; 13:102
- Patil SS, Abdul Rashid K, Narayan KA. Unmet need for contraception in married women in a tribal area of India. Malaysian journal of public health medicine, 2010; 10(2):44-51
- Mekonnen W, Worku A. Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia. Reprod health 2011; 8;8:37.
- 14. Choudhary S, Saluja N, Sharma S, Gaur D, Pandey S. A Study On The Extent And Reasons Of Unmet Need for Family Planning Among Women Of Reproductive Age Group In Rural Area Of Haryana. The Internet Journal of Health. 2011; 12(1)
- 15. Khotb MM, Ismail NA, Morcos AA, Mohammed AF. Risk Factors of Unintended Pregnancy among Women attending Antenatal Care Clinics of Ain Shams University Hospital. 2009.
- Sedgh G, Hussain R, Bankole A, Singh S. Women with an unmet need for contraception in developing countries and their reasons for not using a method, 2007. Occasional Report No. 37.
- 17. Kabbash IA, El-Sayed NM, Al-Nawawy AN, Shady IK, Abou Zeid MS. Condom use among males (15-49 years) in Lower Egypt: knowledge, attitudes

and patterns of use. East Mediterr Health J. 2007; 13(6):1405-16.

- 18. Mahadeen AI, Khalil AO, Hamdan-Mansour AM, Sato T, Imato A. knowledge, attitude and practices of family planning among women in the rural southern region of Jordan. East Mediterr health j, 2012; 18(6):567-72
- 19. Kumar SD, Pramod G, Roli G, Neeraj G, Manoj B. A study to assess the unmet needs of family planning in Gwalior district and to study the factors that helps in determining it. National journal of community medicine 2011; 2(1):28-31.
- 20. Westoff CF, Bankole A. The potential demographic significance of unmet need. International Family Planning Perspectives 1995; 22:16-20.
- Shah MA, Shah NM, Chowdhury RI, Menon I. Unmet need for contraception in Kuwait: issues for health care providers. Soc Sci Med, 2004; 59(8):1573–80