Unmet Need for Family Planning among Currently Married Women in Baghdad Al Karkh

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Abstract:

Background: Unmet need accompanied family planning as a priority and considered as a quality indicator of family planning program, the current study aims to calculate unmet need and to identify the associated sociodemographic & reproductive factors.

Subject and Methods: A cross sectional study was carried out on 1000 currently married women (15-49) of age attending primary health care centers in Al Karkh- Baghdad. Women approached through systematic random sampling during their attendance to primary health care centers, their data were collected via direct interview and analyzed using Statistical Package for the Social Sciences. Unmet need was calculated using the new revised algorithm.

Results: Nearly one third of the studied sample had begun their reproductive life before reaching the age of 18. More than one forth (28.1%) of women had unmet need for family planning. The main reason for not practicing family planning among women with unmet need was fear of side effects. All socio-demographic and reproductive characteristics showed statistically significant association with unmet need for family planning.

Conclusions: There was a high level of unmet need for family planning among currently married women Providing educational attention to family planning regulars might be necessary to lower the unmet need.

Keywords: Unmet need; family planning; Baghdad; Contraception; women at reproductive age; currently married women; primary health care centers; spacing; limiting; Bradley et al. 2012; Bradley's algorithm.

Introduction:

Globally, the number of women wanting to avoid pregnancy and therefore needing effective contraception had increased substantially and most of that increase would occur in the developing countries. Meeting that need in the developing regions could help prevent 283 million unintended pregnancies annually, along with 1.8 million newborn and maternal deaths.[1-3]

In 2014, 44% of married women aged (15-49) years in the Arabian region used modern family planning methods.[4] Yet according to 2016 median estimates, the unmet need for family planning in Saudi Arabia, Egypt, and Jordan reached to 24.1%, 12.2%, and 11.9% respectively.[5] While in Iraq; and according to the Iraqi women integrated social and health survey 2011-2012 (I-WISH), the unmet need for family planning among married women was 22.8%[6] and it is estimated to reach 28% for modern methods in 2016.[5]

Since unmet need for contraception is one of the known indicators for monitoring family planning programs[7] and though; in Iraq, this program had only received its required attention after 2003, the current study aimed to provide a comparable calculation of unmet need for family planning, shed the light on reasons for the inconsistencies between women's stated desire to avoid conception and their failure to use the readily available contraceptives and identify the sociodemographic factors that is associated with unmet need

Subject and Methods:

Currently married women, of (15-49) years of age who have active sexual relationship with their husbands and attending the selected primary health care centers (PHCCs) were included. The sample size was estimated depending on the following equation [8]:

$$N=[Z^2 \cdot P(1-P)(D)] / E^2$$

Where Z equals to 1.96, E the sampling error and here 5% was used, P is the estimated prevalence of contraception use, which was considered 0.50, and D is the design effect which equal 2. [9] Thus N equals1000, after adding 20% of the estimated sample size for incomplete answers.

Starting with the ten health districts in Baghdad-Al Karkh, a multistage sampling was used, three health districts out of the six districts in the urban area, and two health districts from the four districts in rural areas, were chosen. In the second stage, four PHCCs were randomly selected from each district. At the last stage 50 eligible women were interviewed from each PHCC using systematic random sampling according to their exit order, those who didn't fit the inclusion criteria were skipped and the next woman was approached. The tool of the study was a structured questionnaire-form adopted from a previously published questionnaire. [10] The questionnaire was piloted on a sample of 100 eligible women (10% of total sample). Depending on the notes recorded, the misinterpreted parts were reformed.

In the current study, modern methods include female and male sterilization, oral hormonal pills, emergency contraception, intra-uterine device (IUD), female and male condoms, injectables, implants, diaphragm, cervical caps and spermicides creams, suppositories, foam/jelly, etc. While traditional methods include periodic abstinence, withdrawal and

lactational amenorrhea method. [11] Unmet need was calculated using the revised definition of unmet need for family planning described by Bradley et al. 2012 [12] depending on the following equation [13]

$$\text{Unmet need for Family planning} = \frac{\text{Women (15-49) years of age who are married and have an unmet need for family planning}}{\text{Total number of women of reproductive age (15-49) who are married}} \times 100$$

The numerator included: All pregnant women whose pregnancies were unwanted or mistimed at the time of conception, All postpartum amenorrheic women who are not using family planning and whose last birth was unwanted or mistimed; and all fecund married women who are neither pregnant nor postpartum amenorrheic, and who either do not want more children, or wish to postpone giving birth for at least two years and are not using contraception.

Excluded from the numerator are infecund women. [12] Postpartum amenorrheic women were defined as those whom their menstrual period has not returned since their most recent birth which was in the last two years (0-23 months) prior to the interview, these women were assigned an unmet need based on the wantedness of their last birth.

Women were assumed to be infecund if they were first married for five or more years ago, have not had a birth in the past five years, and have never used any contraceptive method and if they self-report that they are infecund, menopausal or had a hysterectomy, never menstruated, or have been postpartum amenorrheic for 5 years or longer. [12] Household wealth was calculated using the international wealth index equation. [14]

Verbal and written consents were taken from each woman prior to the interview. The data collection was conducted for five days a week from 8:30 am to 1 pm. From august 2014 to the end of January 2015.Data were coded and analyzed using the Statistical packages for social sciences 18. Chi–square test was performed to assess statistical association between variables. P value ≤0.05 was considered significant.

Results:

The mean age of respondents was 31.8 ± 8.9 years. Table (1) illustrates the socio-demographic characteristic of the studied sample. Years of education among respondents ranged from 0 to 19 years with an average of 8.15 ± 4.7 years.

Table (1): Distribution of the studied sample and their husbands according to their socio-demographic characteristics, Al Karkh -Baghdad, 2014, n=1000.

Socio-demographic characteristics		Respondents		Husbands	
		Frequency	percentage	Frequency	Percentage
Age	Less than 18	34	3.4	5	0.5
	18- 23 years	165	16.5	70	7.0
	24- 29 years	234	23.4	198	19.8
	30- 35 years	226	22.6	211	21.1
	36- 41 years	143	14.3	177	17.7
	≥42years	198	19.8	339	33.9
Years of education	0-6	424	42.4	301	30.1
	7-12	408	40.8	427	42.7
	≥ 13 years	168	16.8	272	27.2
Age at marriage	Less than 15	119	11.9		
	15-17 years	235	23.5		
	18-23 years	427	42.7		
	24-29 years	166	16.6		
	30-35 years	38	3.8		
	≥36 years	15	1.5		
Employment Status	Housewife	870	87.0		
	Governmental employee.	111	11.1		
	Self-employee	6	0.6		
	Student	12	1.2		
	Retired	1	0.1		
Number of live births (parity)	0 (Nullipara)	54	5.4		
	1 – 2	331	33.1		
	3 – 4	324	32.4		
	5 and more	291	29.1		
Household Wealth	Poor	371	37.1		
	Middle	267	26.7		
	Rich	362	36.2		

As for husbands, the average years of educationwas10.19±4.6 years, ranging from 0-20 years. The average number of live births was 3.41 ± 2.1, within a range (0-11), while the mean number of desired children was 3.77 ±1.6, range (1-12). The average age at marriage among respondents was 20.0± 5.1 ranging from 11-46 years and the average age at first live birth was 20.5±4.6 ranged from 13-42 years.

Approximately 294 (29.4%) of respondents had their first live birth before the age of 18, and of these 33 (3.3%) had their first live birth before 15 years of age Most of the women 798 (80%) reported not having previous discussions about family planning with a health worker nor receiving any information about the availability of the service during their visits to the PHCCs in the last 12 months.

Yet majority 842 (84.2%) of respondents had used a contraceptive method before, of them 494 (58.6%) of respondents used their first contraception after having 1-2 children. Table (2) shows the percentages of ever users at the time of first use of contraception by the number of live births. The average number of children born at the first use of contraception was 2.40 ±1.4 within a range of (0-8).

Table (2): Percentage of ever users at the first time of family planning practice according to the number of live births, Al Karkh-Baghdad, 2014, n= 842

First time of ever using a family planning method	Frequency (%)
Before first pregnancy	3 (0.4)
After 1-2 children	494(58.6)
After 3-4 children	271(32.2)
After 5 or more children	74(8.8)
Total	842(100.0)

Regarding the current family planning practice, half 504 (50.4%) of the interviewed women were not using any method of contraception at the time of study. Figure (1) demonstrates the distribution of respondents by their current family planning practice.

Almost one third 153 (30.4%) of non-users were pregnant, 80 (15.8%) were in postpartum amenorrhea and 24 (4.8%) were classified as infecund. Whereas the remaining half 247 (49%) were fecund-nonusers. Figure (2) shows unmet need algorithm calculation.
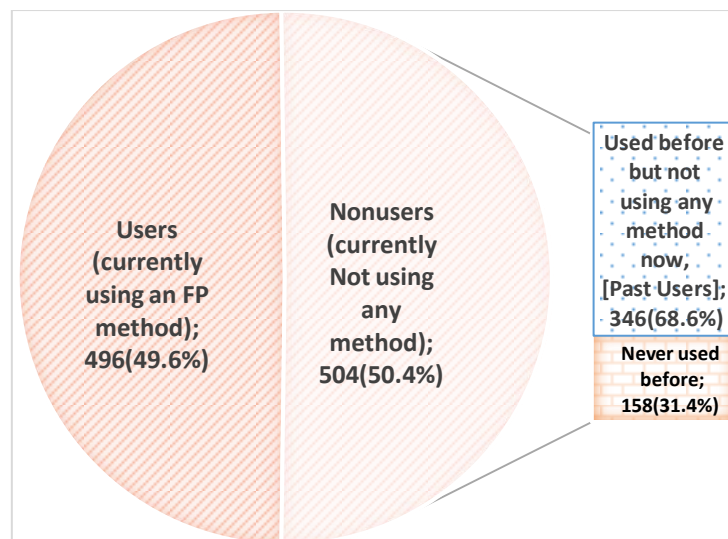

Figure (1): Distribution of respondents according to their practice of family planning methods, Al Karkh- Baghdad, 2014, n=1000.

More than one fourth 281 (28.1%) of respondents had unmet need, 109 (10.9%) had unmet need for spacing, while 172 (17.2%) had unmet need for limiting. Total demand for any family planning method was 77.7%. Table (3) depicts the reasons for not practicing family planning among women with unmet needs. Fear of side effects (28.5%) was the main reported reason for not using family planning. All sociodemographic characteristics showed statistically significant associations with unmet need. Table (4) demonstrates the distribution of unmet need for family planning by the socio-demographic characteristics of the sample
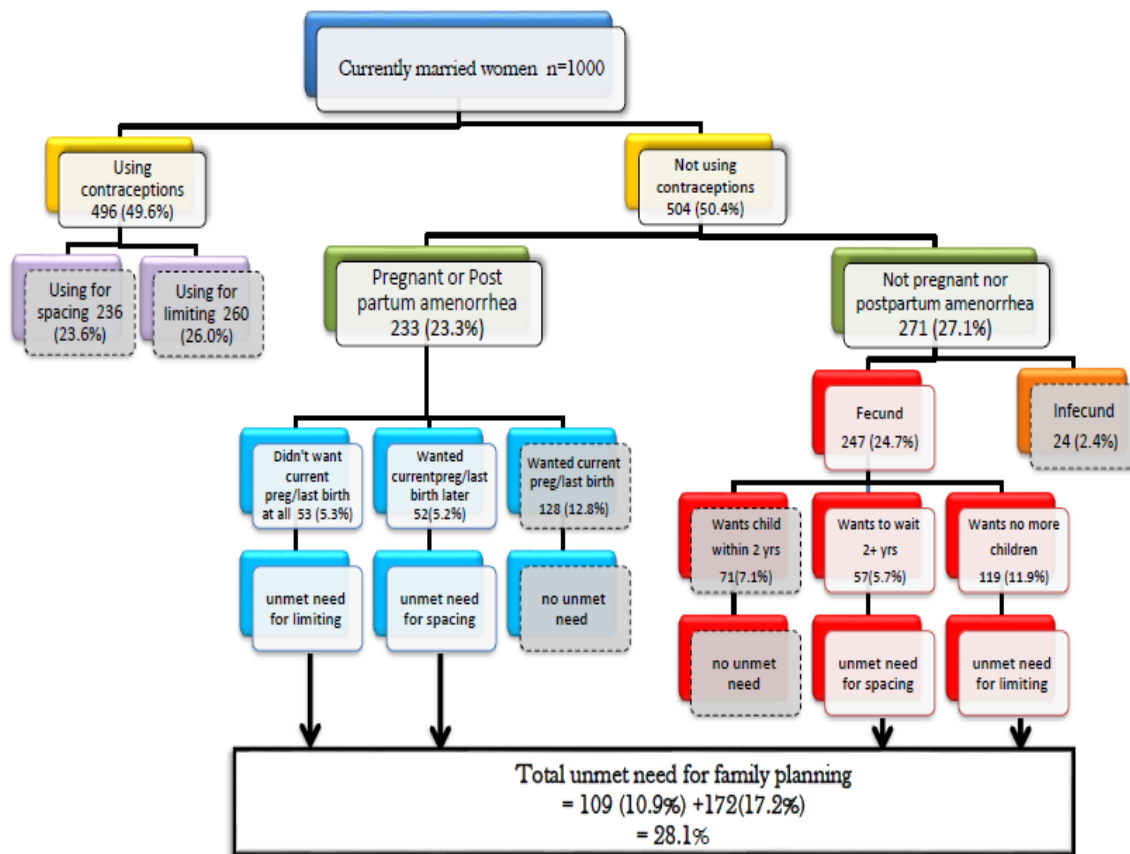
Figure (3): Algorithm for calculation of unmet need for family planning among the studied sample, Al Karkh-Baghdad, 2014, n=1000

Discussion

This study is the first to calculate unmet need for family planning in Baghdad using the new revised model so that unmet need would be comparable over time and across surveys. A particular emphasis was made on the adequacy and accuracy of the information collected. No divulge of confidentiality was made and respondents' identities were totally protected. One drawback of the study was the use of cross sectional data which precludes assessing the causality of the associations described. In the current study, one third of respondents begun their reproductive life before their 18th birthday, this might reflect the low age at marriage, as it delimits the age of conception and mirrors the years of active reproductive life. The average number of live births (3.4) was comparable to that described in studies from Baghdad-Iraq (3.9) and Yemen (3.5) [15, 16], yet higher than that reported in Morocco (2.8) [17], which might be related to cultural norms and family planning programs that influence couple's parity. The study also revealed that women tend to use their first contraceptive method after having an average of 2.4 children which is comparable to IWISH results in Baghdad where the mean number of children was 2.6 at the initiation of contraception, while in Wasit and Thi-Qar governorates it was 3.2. [6].

Table (3) The reasons for not practicing family planning among respondents with unmet need, Al Karkh, Baghdad 2014, n=281

Reasons for not practicing family planning	Unmet need
Desire to have a child/children	14(5.0)
Husband refuse family planning practice	46(16.4)
Breastfeeding	6(2.1)
Low perception of pregnancy risk (old age)	65(23.1)
no suitable method to choose from	7(2.5)
fear of Side effects and infertility	80(28.5)
Improper use-Method failure	61(21.7)
Others *	2(0.7)
Total	281(100)

*subjects reported suffering from diseases (Systematic Lupus Erythematosus and Lymphoma)

This might point out the awareness about births spacing and the socio-cultural differences between capital city and peripheral governorates. The initiating of contraception after a number of births might describe the stage in the family-building process when women began using family planning as well as their motivation for contraception. In many Arabic countries, women practices family planning for limiting and they tend to use contraception only after they had reached their desired number of children. [18] Likewise this study showed that there is an acceptance of contraception at a parity of two or three children, which corresponds to one or two children fewer than what women considered ideal. In contrast to results from Egypt; where six in ten women initiate contraception, after their first child. [19] Although not all visits to the PHCC is an occasion to provide family planning information or services and not all nonusers are interested or in need of contraception. However, the results suggest a possibility of benefiting from women visits' to PHCCs to publicize family planning.

The current findings report a high level of unmet need (28.1%) which is slightly higher than what had been reported in IWISH [6] where 25.5% of married women in Baghdad had unmet need for family planning. This rise might be attributed to differences in sample size, and the fact that the current calculation used the revised unmet need algorithm, in which there is a 1.7 percentage point difference between old calculation and this model. [12]

The current unmet need was higher than that reported in Arabian countries like Egypt (12.8%), Jordon (12.0%) and Morocco (10.8%). [17, 20, 21] Interestingly, unmet need for limiting (17.2%) was higher than that for spacing (10.9%), which is comparable to the results of IWISH; unmet need for limiting surpassed that for spacing (12.6% vs 10.3%) [6], this observation is in agreement with results from Jordan, (7% vs 5%)[20] and Egypt (8.1% vs 4.5%).[21] In contrast to Sudan and Yemen, where higher proportion of unmet need for spacing were reported (15.1% vs 0.7%) and (15% vs 13.8%) respectively [16, 22] which is probably related to access and awareness differences.

Women who desire stopping fertility would seek long acting and effective methods [23] therefore the high unmet need for limiting might echo women's need for such methods including permanent procedures and match the lack of health-worker role in offering the needed information and aborting misconceptions about contraception, as the main reason for not practicing family planning among unmet need

women was the fear of side effects. It has been reported that meeting the need for limiting has the potential to result in fertility decline [24] and hence meeting the demand for long acting methods might help lower the high fertility in Iraq.

Unmet need was significantly associated with respondent's age; it was the lowest among women below 18 years, probably because they are more into completing their families. This finding agrees with results from Jordan and Egypt. [25, 26] In contrast to a study by Al Jawadi and Al Bakry, in Mosul-Iraq, which showed that with increased aged, unmet need tend to decrease and women 30-39 years old had the lowest unmet need. [27] This might be attributed to the fact that Mosul have a more conservative society; compared to Baghdad, in which early marriages are quite common, so majority of women complete their families by their thirties and it is only then when they choose to use contraception. Likewise, women of low age at marriage had the highest unmet need probably due to longer fecund years. Unless they use a method to limit pregnancy, their probability of having more children is greater. The results match that from Dohuk-Iraq [8] and Sudan. [22]

Unmet need was negatively associated with education, maybe since education not only provides the power of knowledge but also empower women. This agrees with findings reported in Mosul Iraq, Jordan and Egypt. [25-27] Similarly when husbands are more educated; they might encourage spacing births, or prefer smaller-sized families. Comparable findings were stated in Sudan. [23] Unmet need was positively associated with parity, with increased parity, women exceed their desired number of children and develop a need to limit fertility, or maybe the high unmet need is a cause of higher parity rather than a consequence. The result agrees with studies from Dohuk- Iraq's, Jordan, and Egypt. [8, 25, 28]

Women who received family planning information from health workers had lower unmet need; this might reflect the importance of marketing the presence of family planning clinics and the need for continuous counselling and education. [29]

Women of poor households had the highest unmet need probably because they fall short in terms of information and access to methods, although pills, condoms and IUDs are available in the Iraqi PHCCs at low cost yet socioeconomic status might influence other variables. For instance, women with higher living standards are less likely to experience child loss and more likely to access services in time. This agrees with results from Egypt and Iran. [30, 31]

Table (4): Distribution of unmet need for family planning according to socio-demographic and reproductive characteristics of the studied sample, Al Karkh-Baghdad, 2014, n= 1000.

Variables		Unmet need N=281	Met need N=719	Test+
		n(%)	n(%)	
Respondents' age	< 18 years	5 (14.7)	29 (85.3)	x^2=22.799 d.f.=5 P=0.000
	18-23 years	39(23.6)	126(76.4)	
	24-29 years	60(25.7)	174(74.4)	
	30-35 years	62(27.4)	164(72.6)	
	36-41 years	34(23.8)	109(76.2)	
	42 and higher	81(40.9)	117(59.1)	
Residency	Urban	150(25.0)	450(75.0)	x^2 = 7.135 d.f.=1,P=0.008
	Rural	131(32.8)	269(67.3)	
Respondents' age at marriage	less than 15	48(40.3)	71(59.7)	x^2= 15.287 d.f.=4 P=0.004
	15-17	69(29.4)	166(70.6)	
	18-23	117(27.4)	310(72.6)	
	24-29	39(23.5)	127(76.5)	
	30 and above	8(15.1)	45(84.9)	
Respondents' years of education	0-6	145(34.2)	279(65.8)	x^2 = 15.993 d.f.=2 P=0.000
	7-12	104(25.5)	304(74.5)	
	13 or more	32(19.0)	136(81.0)	
Respondents employment	Unemployed∞	261(29.6)	622(70.4)	x^2= 7.944, d.f.=1,P=0.005
	Employed	20(17.1)	97(82.9)	
Husbands' years of education	0-6	111(36.9)	190(63.1)	x^2=17.547 d.f.=2 P=0.000
	7-12	110(25.8)	317(74.2)	
	13 or more	60(22.1)	212(77.9)	
Number of live births	0	3(5.6)	51(94.4)	x^2 = 53.658 d.f.=3 P=0.000
	1 - 2	68(20.5)	263(79.5)	
	3 - 4	86(26.5)	238(73.5)	
	5 and more	124(42.6)	167(57.4)	
Received FP information from a health worker	Yes	2 (1.0)	200(99.0)	x^2=92.081, d.f.=1 P=0.000
	No	279(35.0)	519(65.0)	
Household wealth	Poor	123(33.2)	248(66.8)	x^2 = 8.283 d.f.=2 P=0.016
	Middle	62(23.2)	205(76.8)	
	Rich	96(26.5)	266(73.5)	

+ Significant at alpha level <0.05

∞ Includes housewives/not working, students, and retired respondents.

Conclusions and recommendations

About one third of the sample had unmet need for family planning, two thirds of which was for limiting purposes. There was an absence of health-worker role in educating PHCCs-clients and disseminating information about the service.

The study recommends meeting the demand for long acting methods and utilizing the available plasma-screens in each PHCC to broadcast family planning messages and encourage service uptake, efforts must be made to target the population in need, such as those living in rural area, poor households, and with lower educational level.

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