Contraceptive use and factors associated with unmet need for family planning among postpartum women admitted in a tertiary hospital

By Jay Ian R. Argel, MD and Maria Julieta V. Germar, MD, FPOGS, FSGOP
Department of Obstetrics and Gynecology, Philippine General Hospital, University of the Philippines-Manila

ABSTRACT

Background: Unmet need points to the gap between reproductive intentions and contraceptive behavior. This cross sectional study aims at determining the demographic, socioeconomic and other factors underlying the unmet need for contraception among postpartum women.

Method: A face-to-face interview was conducted to among postpartum women admitted in a tertiary hospital and logistic regression analysis was performed to determine the significant predictors of unmet need for family planning. Descriptive analysis on their contraceptive use was also determined.

Results: After controlling for other respondents' characteristics, the results indicate that the total unmet need was associated with younger women, those who were in the age range 20-30 years old during their first pregnancy and religion is Roman Catholic. The most significant association was shown in those whose partners disapprove the use of family planning. Majority have heard of contraception but are not using any method. The major sources of contraceptives and contraceptive information on family planning are still the public health sector. Most have contraceptive plans and they prefer oral pills and implants.

Conclusion: Unmet need for family planning is associated with partner's approval. With low family planning utilization among postpartum women, future programs on family planning should focus on these problems.

Keywords: Unmet Need, Postpartum, Family Planning

INTRODUCTION AND SIGNIFICANCE OF THE STUDY

According to the United Nations Population Fund (UNFPA), family planning is the information, means and methods that allow individuals to decide if and when to have children.[1] This includes a wide range of contraceptives as well as non-invasive methods. It also includes information about how to become pregnant when it is desirable, as well as treatment of infertility. The World Health Organization (WHO), defines it as a way of thinking and living that is adopted voluntarily upon the bases of knowledge, attitude, and responsible decisions by individuals and couples.[2]

The issue of unwanted pregnancies in the rising global population is of concern. Over 200 million women in developing countries do not desire pregnancies and they fail to use modern contraceptive methods.[3] The WHO (2006) lists several reasons for the lack of motivation in family planning: lack of accessibility to contraceptive methods; fear of side effects and approbation based on social norms and religious beliefs.[2]

Concept of Unmet Need and Demand for Family Planning

Unmet need for family planning is defined as the number or percent of women currently married or in union who are fecund and who desire to either terminate or postpone childbearing, but who are not currently using contraceptive method.[2]

Women with unmet need are composed of two groups.[4] The first group pertains to women with unmet need for spacing. These are those who desire to postpone their next birth by a specific length of time and who do not currently use a contraceptive method. The second group are those women with unmet need for limiting. This group desires no additional children and who do not currently use contraception.

Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted, respectively. Women who are currently using a family planning method are said to have a met need for family planning.

The concept of unmet need can also extend to postpartum amenorrheic woman. If their previous pregnancy was unintended and previously do not using any family planning methods, they have unmet need.[4]

Between 1990 and 2015 the unmet need for family planning has declined worldwide.[1,5] However, there are more than 225 million women with unmet need for contraception who are not using modern contraception.[5] In 2015, 12% of married or in-union women of reproductive age worldwide want to delay or avoid pregnancy but are not using any method of contraceptive.[5] In the same report, it was emphasized that the unmet need has the advantage of introducing a rights-based approach, as it captures at the same time the woman's use of contraception and her fertility preferences as compared to contraceptive prevalence rate.

Unmet Need for Family Planning in the Philippines

According to the Philippine National Demographic Health Survey (NDHS) Report of 2017, Filipino women have a total fertility rate of 3 as opposed to the desired or wanted fertility rate of 2.2.[6] On average, Filipino families wanting 2 children ended up having 3 instead. On the other hand, forty-three percent (43%) of women in the Philippines consider two children as the ideal family size, while 28% prefer three children, 13% prefer four children and 8% prefer five or more children.[6,7] The prevailing high fertility especially among poor women is mainly because of the lack of access to family planning services as indicated in the country's modern family planning (MFP) contraceptive prevalence rate at 37.6% and unmet need for family planning at 17.5%.[6]

In the Philippines, 17% of currently married women have an unmet need for family planning services whereas among sexually active, unmarried women, 49% have an unmet need for family planning.[6] In the same study, 54% of married women are currently using a contraceptive method and 32% have a met need among sexually active and unmarried women.[6] Given this data, 71% of currently married women have a demand for family planning for married women and 81% have demand for family planning among unmarried women.

Factors Associated with Unmet Need for Family Planning
Individual level-variables

Woman's Age

In a review of several studies, age as a determinant of unmet need was found to be significant.[8] This means that a woman's age was negatively associated with total unmet need for family planning, meaning as women get older the unmet need for family planning decreases. Younger women were often less knowledgeable in modern family planning options and less likely to engage in family planning discussion with health workers compared to older women. According to the latest data in the Philippines, younger married women age 15-19 have the greatest value of unmet need among all age groups (28% versus 13%-18%).[6]

Age at First Pregnancy

In one study in India, age at first pregnancy is associated with unmet need for family planning.[9] Younger age at first pregnancy is associated with higher unmet needs for family planning. In the said study, reasons cited reasons for this includes lack of education and most young women do not use family planning methods.

Number of Previous Child/Children and Ideal Number of Children

The number of previous children or pregnancies was found to be positively associated with a woman's total unmet need for family planning, meaning as the number of children/ pregnancies increased, so did the total unmet need.[9]

Prospective or future desire for children, retrospective fertility preferences, and ideal number of children can also affect unmet needs for family planning. In the 2004 MDHS, women and men were asked a series of questions to ascertain their fertility preferences, including their desire to have another child, the length of time they would like to wait before having another child, and what they consider to be the ideal number of children. These data make it possible to quantify fertility preferences and, in combination with data on contraceptive use, allow estimation of the unmet need for family planning, for both spacing and limiting births.

As the ideal number of children increases, the total unmet need decreases.[8,10] In the Philippines, thirty-eight percent (38%) of women and 40% of men wanted to have another child after two or more years.[9] Thirty-five percent (35%) of women indicated that they wanted no more children and therefore wanted to limit the family size at its current level. The desire to end childbearing increases with the number of living children, from 5 percent among married women with no children to 67% among women with six or more children.

Woman's level of education

Educated women may have greater awareness on the range of contraception methods available and may also have greater autonomy in decision-making than uneducated women. In Botswana, unmet need was highest among married women with no education (20.1%) compared with women with secondary education (6.0%). Furthermore, 16.2% of women with primary education had unmet need while those with postsecondary education had 7.1% of unmet need for family planning.[11]

Electronic media is an important source of information about the range of contraceptive methods. Information from health facilities or counselling by a health worker can also contribute to a decrease in unmet family planning needs.

Household level Variables

Family Income

Another factor found significantly associated with unmet need is a low socioeconomic status. However in the Philippines, the unmet need for family planning varies little with wealth quantile.[6] The unmet need for family planning is likely to vary by wealth status as the rich may have greater capability to access family planning services than the poor.[11]

Religion

Data on the role of woman's religious belief in unmet need for family planning is conflicting. In Ghana for example, Catholicism was strongly associated with a decrease in unmet need when compared to other religious beliefs; and in an Ugandan study however, this association was positive.[8] Unmet need for family planning was lowest among Christians (8.9%) and highest among non-Christians (12.7%) in Botswana.[11] Decision-making on the use of contraception is likely to vary by religion due to differences in cultural practices and beliefs.

Partner Related Factors

Partner's level of education

The role of partner's education was found to be a significant negative determinant for unmet need. In Africa, particularly in Guinea (57.9%) and Gambia (41%) women whose partner attained higher education were less likely to have unmet need for family planning.[12]

Partner's approval of family planning

Male involvement in decision-making on the use of contraception is an important factor on the unmet need for contraception. Women who discussed about family planning with their male partners were 0.66 times less likely to have an unmet need for family planning than those who did not.[13] In the same study, approval of family planning and contraception by the male counterpart was also associated with a significant decrease in the likelihood of unmet need for family planning. Women whose partners disapproved of family planning had the highest unmet need for family planning, 16.5% compared to 7.5% for those who had their partner's approval.[13]

The Philippine NDHS data provide limited insights on the different factors associated with unmet needs. The aim of the study is therefore to determine those factors associated with unmet need for family planning in a tertiary hospital. The findings of this study will serve as a guide for clinicians and decision makers in the tertiary hospital in formulating appropriate family planning programs specifically catering to postpartum women and their partners. Data from this study can serve as basis for future hospital reproductive health programs in order to increase the level of family planning practice.

OBJECTIVES OF THE STUDY

This study aims to determine the association of different factors of unmet need for family planning among postpartum women admitted in a tertiary hospital. Specifically, it seeks to:

1. To determine the proportion of couples who have unmet need for family planning in a tertiary hospital.
2. To determine the association between the following factors and unmet need for family planning in patients admitted in a tertiary hospital: Patient's age; Age at first pregnancy; Educational attainment; Monthly income; Number of children; Partner's level of education; Partner's approval of family planning; and Religion.
3. To determine the prevalence and types of modern family planning methods used by couples in tertiary hospital.

MATERIALS AND METHODS

A. Study Design, Population and Sample Size

This study is cross-sectional survey. The sample consists of all postpartum patients admitted from September to October of 2019, who satisfy the inclusion (admitted in the wards of Department of Obstetrics and Gynecology of a tertiary hospital; aged 15 – 49 years old; gave birth and regardless of the outcome; able to provide informed consent) and exclusion criteria were recruited and included in the study. The study does not aim to make conclusions outside the study population and the results of the study are applicable only to the participants that were included in the study.

B. Operational Definition of Terms

1. **Unmet need for family planning**. A woman was classified to have an unmet need for family planning in this study if she had no desire for childbearing in her life, or desired to postpone childbearing and was not using a contraceptive method. This variable was computed as the sum of those with unmet need for spacing and unmet need for limiting.
2. **Unmet need for limiting.** Women who declared

their pregnancy to be unplanned and not using contraception but desired not to have a children but who respectively declared their last pregnancy unwanted. In this study, the following questions were asked to measure this variable: *(1) "When you got pregnant, did you want to get pregnant at that time?" and (2) "Have you ever used anything or tried in any way to delay or avoid getting pregnant during the last pregnancy?"; and (3) Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?"*. The respondent should answer "No" in all the questions to have unmet need for limiting.

3. **Unmet need for spacing.** Women who respectively declared their last pregnancy mistimed (occurred at the wrong time but they however had intentions of having more children in their life). In this study, the following questions were asked to measure this variable: *(1) "When you got pregnant, did you want to get pregnant at that time?" and (2) "Have you ever used anything or tried in any way to delay or avoid getting pregnant during the last pregnancy?"; and (3) Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?"*. The respondents should answer 'No' in the first two questions and "Yes" for the 3rd question for them to have unmet need for spacing.
4. **No unmet need.** Women with no unmet needs are any of the following: (1) report last child was wanted; and (2) report wanting more children soon. This was asked in the study: `*"When you got pregnant, did you want to get pregnant at that time?"*. If the respondent answers 'Yes', then the respondent have a met need for family planning.
5. **Age.** This refers to age of the respondents and included in this study are those aged 15-49 years old. Age was categorized into: (1) 15-19 years old; (2) 20-30 years old; (3) 31-40 years old; (4) 41-49 years old.
6. **Age at first pregnancy.** It pertains to the age of the first pregnancy of the respondent. This was categorized into: (1) 15-19 years old; (2) 20-30 years old; (3) 31-40 years old; (4) 41-49 years old.
7. **Educational attainment.** This pertains to the highest educational attainment of the respondent. This variable was categorized as: (1) elementary school; (2) high school undergraduate; (3) high school graduate; (4) college undergraduate; (5) college graduate; (6) vocational course graduate; (7) never attended school.
8. **Annual income.** This pertains to the monthly household income of the couple. This was asked in the study as *" What is the estimated annual revenue of your family?"* This was classified as: (1) Under 40,000, (2) 40,000 – 59,999; (3) 60,000 – 99,999; (4) 100,000 – 249,999; (5) and 250,000 and over.
9. **Number of children.** This variable is the number of children ever born by the respondent. This was categorized as: 1-2, 3-4, 5-6, >6 children.
10. **Partner's level of education.** This pertains to the highest educational attainment of the respondent's current partner. This variable was categorized as: (1) Elementary; (2) High school undergraduate; (3) High School graduate; (4) Vocational Course Graduate, (5) College undergraduate; (6) College Graduate. This will be asked: *"What is the highest educational attainment of your partner?"*
11. **Partner's approval of family planning.** This variable refers to the approval of the patient's approval on family planning. In the study, this will be asked as follows: *"Does your partner approve of contraception?"* This variable will be classified as Yes or No.
12. **Religion.** This pertains to the respondents religion. This was categorized as: (1) Roman Catholic, (2) Islam, (3) Iglesia ni Cristo, (4) Evangelical, (5) Others and (6) No religion.

C. Description of Study Procedures, Data Collection Tools and Analysis

The research hypothesis of this study is that unmet need for family planning (unmet need for spacing and unmet need for limiting) among postpartum women, age (15-49 years old), in a tertiary hospital is associated with age, age at first pregnancy, educational attainment, monthly income, number of children, partner's level of education, partner's approval of family planning, and religion. Total unmet need (unmet need for spacing and for limiting) were used as outcomes and demographic, socioeconomic and other factors as independent variables. Independent variables were derived from the literature review and the 2018 Philippine NDHS questionnaire. They were mostly categorical and the few continuous, for example age, were categorized.

A structured, pre-tested and, validated questionnaire was used to conduct a survey among all postpartum patients admitted at the Department of Obstetrics and Gynecology of a tertiary hospital during the study period. This interview guide was technically and ethically reviewed and approved by the Research Ethics Board of the hospital.

The data collection tool (interview guide) was developed after reviewing different relevant literature. The data collection used face-to-face interview to administer the standard questionnaire developed by the MEASURE

Demographic Health Survey (DHS) Program developed by the United States Agency for International Development (USAID).[14] The DHS project developed tool to standardize and simplify the algorithm and data collection for unmet need for family planning. This tool is also used by the Philippines in its National Demographic Health Surveys. The survey instrument (interview guide) were developed from a validated tool from the DHS and modifications were made to meet the objectives of this study. The tool were considered valid and reliable through the favorable comments of experts. The interview guide was also given to experts (all academic staff) who were familiar with the study and worked in the relevant fields and asked. They were ask to check the content of the questionnaire based on is the aim and objective of the study.

The tool was designed in three sections: the first section covered the socioeconomic background of the respondents, the second section inquired into unmet needs for family planning, and third part dealt with contraceptive use of the respondents.

The interview guide consisted of 28 questions: 13 questions for the sociodemographic background of the respondents, 8 questions for the contraceptive use, and 7 questions to evaluate the unmet needs. The first section of the interview consisted of the respondents' sociodemographic profile: age, highest educational attainment, marital status, number of years of marriage/ cohabitation, religion, educational level of the partner, respondents' occupation, partner's occupation, family income, number of times pregnant, age during first pregnancy and preferred number of children. The second section contained questions on the participants' contraceptive use and preference. Lastly, the third part will evaluate the unmet needs for family planning among the participants.

The interview guide originally in English language was translated into Filipino by the authorized agency affiliated in the hospital. Pretest was performed and necessary modifications and corrections were done to ensure validity

Data checking, compiling, and editing was performed manually by the researcher. Collected data were coded, entered into Microsoft Excel, and cleaned, and then further analysis was done by SPSS version 17 software package.

Descriptive data on the prevalence and types of family planning methods used by couples in tertiary hospital were identified in this study. After a descriptive analysis of the study population, the association between the three outcomes and the independent variables were analyzed using logistic statistical analysis. Logistic regression was performed to determine the likelihood of having unmet need for each of the identified factors. Model building was not done since the result of the analysis will not be used in making generalizations or drawing conclusions about population outside of the study. Power analysis was also performed because total enumeration of the population was done and thus, the minimum number of participants was not computed. The result of the analysis will provide information on the power achieved by the test given the number of participants had sampling and statistical inference were necessary for the objectives of this paper.

RESULTS

The result of the 197 postpartum women were analyzed (Table 1). Most of the participants (104 women or 52%) were within the age range 20-30 years old, followed by age range 31-40 years old (29%), then 15-19 years old (15%) and >40 years old (3%). In terms of education, majority were high school graduates (35%) and only 14.2% were college graduates. Likewise, their partners were also either high school graduates (28%) or attended some years in high school (28%). Most of them (62%) were with common-law partners and only 30% are married. In terms of occupation, 106 respondents or 53% were unemployed. The self-reported average monthly income for 96% of the respondents was below PHP 40,000. Majority of the respondents (51.8%) gave birth between 20 to 30 years old but 44.7% gave birth at a very young age, 19 years old and below. For the association of the different predictors and unmet needs for family planning in a tertiary hospital. (Tables 2 and 3)

Age

The mean age of those with met and unmet need for family planning was similar, 27.2 and 27.7 years old respectively. Adjusting for ideal number of children, educational attainment, religion, partner's educational attainment, and partner's approval of contraceptive use, the odds of having unmet need for contraception decreases by 0.9% for every year increase in age.

Age During First Pregnancy

Adjusting for age, ideal number of children, educational attainment, religion, partner's educational attainment, and partner's approval of contraceptive use, the odds of having unmet need was 1.582 times higher among 20 to 30 years old than those who were below 19 years during the first time of pregnancy. The adjusted odds of having unmet need was 1.11 times higher among those who were below 19 years than those who are 31 to 40 years old during the first time of pregnancy.

Respondent's Educational Attainment

There was no association between respondent's education and unmet need for family planning. Adjusting for age, ideal number of children, age during first

Table 1. Demographics and Unmet Need for Family Planning.

Patient Characteristics	Unmet Need		Total	p-value
	With Unmet Need	Met Need or Without Unmet Need		
Educational Attainment				
College graduate	15 (53.6)	13 (46.4)	28 (14.2)	
Vocational Course Graduate	7 (50.0)	7 (50.0)	14 (7.11)	
College undergraduate	16 (44.4)	20 (55.6)	36 (18.3)	0.780
High school graduate	37 (52.9)	33 (47.1)	70 (35.5)	
High school undergraduate	22 (57.9)	16 (42.1)	38 (19.3)	
Elementary	4 (36.4)	7 (63.6)	11 (5.6)	
Marital Status				
Single	1 (33.3)	2 (66.7)	3 (1.52)	
Married	28 (47.5)	31 (52.5)	59 (30.0)	0.329*
Separated	4 (33.3)	8 (66.7)	12 (6.1)	
Live-in	68 (55.3)	55 (44.7)	123 (62.4)	
Religion				
Roman Catholic	83 (50.3)	82 (49.7)	165 (83.8)	
Islam	1 (50.0)	1 (50.0)	2 (1.0)	
Iglesia ni Kristo	3 (33.3)	6 (66.7)	9 (4.6)	0.421*
Evangelical	13 (68.4)	6(31.6)	19 (9.6)	
Other	1 (50.0)	1(50.0)	2 (1.0)	
No Religion	0 (0.0)	0 (0.0)	0 (0.0)	
Partner's Educational Attainment				
College graduate	9 (45.0)	11 (55.0)	20 (10.1)	
Vocational course graduate	9 (60.0)	6 (40.0)	15 (7.6)	
College undergraduate	20 (50.0)	2 (50.0)	40 (20.3)	0.833
High school graduate	30 (53.6)	26 (46.4)	56 (28.4)	
High school undergraduate	30 (52.6)	27 (47.4)	57 (28.9)	
Elementary	3 (33.3)	6 (67.7)	9 (4.6)	
Occupation				
Professional	0 (0.0)	4 (100.0)	4 (2.0)	0.180
Skilled	26 (49.1)	27 (50.9)	53 (26.0)	
Unskilled	15 (65.2)	8 (34.8)	23 (11.7)	
Student	5 (45.5)	6 (54.6)	11 (5.6)	
Unemployed	55 (51.9)	51 (48.1)	106 (53.8)	
Family Income				
P250,000 and over	0 (0.0)	1 (100.0)	1 (0.5)	0.672*
P100,000-P249, 999	1 (100.0)	0 (0.0)	1 (0.5)	
P60,000-P99,999	0 (0.0)	0 (0.0)	0 (0.0)	
P40,000-P59,999	2 (40.0)	3 (60.0)	5 (2.5)	
Under P40,000	98 (51.6)	92 (48.4)	190 (96.5)	
Age in Years During First Pregnancy				0.270*
19 years old and below	40 (45.5)	48 (54.6)	88 (44.7)	
20 to 30 years old	58 (56.9)	44 (43.1)	102 (51.8)	
31 to 40 years old	3 (42.9)	4 (57.1)	7 (3.6)	
Heard of Contraception				
Yes	97 (50.8)	94 (49.2)	191 (97.0)	0.683*
No	4 (66.7)	2 (33.3)	6 (3.1)	
Partner Approves of Contraceptive Use				
Yes	69 (44.8)	85 (55.2)	154 (78.2)	0.001
No	32 (73.4)	11 (25.6)	43 (21.8)	
Frequency of Discussing Family Planning				
Often	35 (36.8)	60 (63.2)	95 (48.2)	
Once or Twice	38 (57.6)	28 (42.4)	66 (33.5)	<0.0001
Never	28 (77.8)	8 (22.2)	36 (18.3)	

Table 2. Likelihood Estimates of Unmet Need for Family Planning Among Postpartum Women Admitted in a Tertiary Hospital (Logistic regression analysis) n= 197.

Patient Characteristics	Unmet Need		Total	p-value
	With Unmet Need	Met Need or Without Unmet Need		
Age	27.2 (7.3)	27.7 (7.1)	27.4 (7.2)	0.69
Number of Pregnancies	2.5 (1.7)	2.2 (1.2)	2.4 (1.5)	0.29
Ideal Number of Children	2.4 (1.2)	2.8 (1.5)	2.6 (1.4)	0.08

Table 3. Likelihood Estimates of Unmet Need for Family Planning Among Postpartum Women Admitted in a Tertiary Hospital (logistic regression analysis) n= 197

Predictors	Crude OR	Adjusted OR	p-value
Age	0.992	0.991	0.768
Ideal Number of Children	0.822	0.833	0.186
Age During First Pregnancy			
19 years old and below (Reference)			
20 to 30 years old	1.582	1.733	0.133
31 to 40 years old	0.900	0.841	0.858
Educational Attainment			
College graduate (Reference)			
Vocational Course Graduate	0.867	0.743	0.700
College undergraduate	0.693	0.48	0.224
High school graduate	0.971	1.081	0.892
High school undergraduate	1.191	1.431	0.588
Elementary	0.495	0.737	0.74
Religion			
Roman Catholic (Reference)			
Islam	0.988	0.992	0.996
Iglesia ni Kristo	0.494	0.476	0.349
Evangelical	2.141	2.387	0.138
Other	0.988	1.241	0.884
Partner's Educational Attainment			
College graduate (Reference)			
Vocational course graduate	1.833	1.892	0.428
College undergraduate	1.222	0.994	0.992
High school graduate	1.410	0.932	0.912
High school undergraduate	1.358	1.009	0.989
Elementary	0.611	0.626	0.648
Partner Approves of Contraceptive Use			
Yes (Reference)			
No	3.584	4.19	0.001

pregnancy, religion, partner's educational attainment, and partner's approval of contraceptive use, the odds of having unmet need was 1.346 times higher among college graduates than those who were vocational course graduates; the odds of having unmet need is 2.083 times higher among college graduates than those who are college undergraduates. The adjusted odds of having unmet need was 1.081 times higher among high school undergraduate than those who were college graduates; the adjusted odds of having unmet need was 1.431 times higher among high school undergraduate than those who were college graduates; and the odds of having unmet need was 1.357 times higher among college graduates than those who were elementary graduates.

Religion

Almost 84% of the respondents are Roman Catholics. Postpartum women whose religion was Roman Catholic have higher adjusted odds of having unmet need (1.008 times) as compared to those whose religion was Islam, and

2.101 times higher unmet need as compared to those who belong to Iglesia ni Kristo. Evangelicals comprised 19% of the respondents and adjusting for age, ideal number of children, age during first pregnancy, partner's educational attainment, and partner's approval of contraceptive use, the odds of having unmet need for family planning was 2.387 times higher among those whose religion was Evangelical than those whose religion was Roman Catholic.

Partner's Educational Attainment

Likewise, the study failed to show no correlation with partner's level of education and unmet need for family planning. Adjusting for age, ideal number of children, age during first pregnancy, religion and partner's approval of contraceptive use, the odds of having unmet need was 1.892 times higher among women whose partners finished vocational courses than those whose partners were college graduate and unmet need was 1.892 times higher among women whose partners were high school undergraduate than those whose partners were college graduate.

However, the adjusted odds of having unmet need was 1.006 times higher among women whose partners were college graduate than those whose partners are college undergraduate and 1.073 times higher among women whose partners were college graduate than those whose partners were high school graduate; and 1.597 times higher among women whose partners were college graduate than those whose partners were elementary graduate.

Partner's Approval of Contraceptive Use

Seventy nine percent (79%) of the partners of the postpartum respondents disapprove the use of contraception. Adjusting for age, ideal number of children, age during first pregnancy, religion and partner's educational attainment, the odds of having unmet need was 4.19 times higher among women whose partners disapprove of contraceptive use than those whose partners approve of it.

Result of Power Analysis

After logistic regression analysis, power analysis was also performed because the study used total enumeration. Since total enumeration method was employed, study does not aim to generalize or conclude about the target population. Based on the result of the power analysis, the test has 5% power. This means that if sampling was done and statistical inference was applied, the number of participants was not enough to achieve a power of 80% for the test and thus, there was not enough proof to conclude the absence of statistical significance of the association between the variables and unmet need if there was no significant result.

Contraceptive Use Among Postpartum Women

Majority (97%) of the respondents have heard of contraception and 47% of them believe that contraception was primarily to prevent unwanted pregnancy. Although most have heard of contraception, majority of the respondents did not use any form of contraception, whether modern or traditional (53%). Among those who used contraception, 25% preferred oral contraceptive pills and 15% used withdrawal method, followed by male condom (11%), injectables (5%), implants (5%), rhythm method (4.5%), intrauterine device (3%) and 1 patient had a previous female sterilization (bilateral tubal ligation).

The source of modern family planning methods used by the respondents were from the public sector, local health centers/family planning clinics (35%) and government hospitals (25%).

Sources of information on family planning were mainly from public health workers (doctors, nurses, health workers) in 42% of the respondents and only 12% through family and relatives.

Almost 82% of the respondents have contraceptive plans after their pregnancy. In terms of future family planning preferences, 32% preferred oral contraceptive pills, 32% preferred implants, 10% preferred female sterilization, 9% preferred male condom, 85 preferred injectables and 8% preferred intrauterine device. Preference for traditional family planning was only 7%, withdrawal (4%) and rhythm method in 3% of the respondents. Only 1 respondent answered male sterilization.

DISCUSSION

This report highlighted that majority (51.27%) of postpartum women admitted in a tertiary hospital have unmet need for family planning, 51.27%. For married patients, 47.5% have unmet need and for those cohabitating with a male partner, 55% have unmet need. This is higher compared to the Philippine data which showed that 17% of married women and 49% of unmarried women have unmet need for family planning.[6,7]

In several studies, it was found out that as the women get older, the unmet need for family planning decreases. This finding was also true in this study. The multivariate analysis confirmed that other factors being constant, there was 0.9% decrease in having unmet need for every year increase in age. The mean age of those with met need was 27.7 (7.1) and those with unmet need are younger 27.2 (7.3). The adjusted OR of having unmet need was 1.582 times higher among 20 to 30 years old than those who were below 19 years during their first pregnancy, whereas the odds of having unmet need was 1.11 times higher among those who were below 19 years than those who were within the age range of 31 to 40 years old during

Table 4. Contraceptive Use and Family Planning Preferences of Postpartum Women Admitted in Tertiary Hospital.

	N	Percentage
Heard of contraception		
Yes	191	97.0
No	6	3.0
Reason for need of contraception		
Prevention of unwanted pregnancy	91	47.64
To space births	44	23.04
Limitation of Birth	41	21.47
Help prevent sexually transmitted infections	9	9.44
No idea	5	3.05
Use any Method of Contraception		
Yes	92	46.7
No	105	53.3
Method Used in the Past		
Oral Contraceptive Pills	50	25.38
Withdrawal	30	15.23
Condom	22	11.17
Injectables	10	5.08
Implants	10	5.08
Rhythm Method	9	4.57
Intrauterine Device	6	3.05
Female Sterilization	1	0.51
Sources of Modern Contraception		
Public Sector		
Government Hospital	41	25.625
Government Health Centers	66	35
Private medical sector		
Private Hospitals	30	18.75
Private Doctors	26	16.25
Pharmacy	7	4.375
Sources of Information on Family Planning		
Health Personnel	99	42.13
Media	78	33.19
Family and Relatives	29	12.34
Friends	9	3.83
Contraceptive Plans after Pregnancy		
Yes	167	84.77
No	30	15.74
Planned Method of Contraception		
Oral Contraceptive Pills	60	35.93
Implants	40	23.95
Female Sterilization	19	11.38
Condom	15	8.98
Injectables	10	5.99
Intrauterine Device	9	5.39
Withdrawal	8	4.79
Rhythm	5	2.99
Male Sterilization	1	0.60

their first pregnancy.

Ideal number of children was also a factor for unmet need for family planning. The adjusted odds ratio of having unmet need for contraception decreases by 16.7% for every one unit increase in the ideal number of children. This means that the more children a couple desires, the more that they want to space their children, hence lower unmet need for family planning.

In terms of the respondent's educational attainment, the multivariate analysis failed to establish the positive correlation of unmet need and level of education. That is, women with lower education were more likely to have both unmet needs for spacing and for limiting.[4] A positive association between unmet need and those who are high school graduates and high school undergraduates as compared to the college graduates was established. However, there was a negative association in the unmet need for contraception among college graduates compared to those graduates of vocational courses and those who finished elementary. One reason for this was that only 14.2% of the respondents are college graduate and more samples might be required to examine this association further. Likewise, there was no association on partner's level of education and unmet need for family planning.

In terms of total monthly family income, no association was established since majority belong to those with income below PHP 40,000. In this wealth quantile, 51.6% have total unmet need for family planning. Future studies in the hospital setting should stratify this income bracket to examine the association of this factor with unmet need.

Majority of the respondents were Roman Catholics (84%), and in this group the proportion of those with met and unmet needs are almost the same. There is a positive correlation between unmet need for respondents whose religion is Roman Catholic as compared to those who belong to Islam or Iglesia Ni Kisto.

Almost 85% of the respondents mentioned that their partners disapprove the use of contraception. Furthermore, 18% of the couples reported that they never discussed family planning, 34% of the respondents discussed family planning once or twice, and 48% of the respondents often discussed family planning. The husband or partner's approval on family planning has emerged as the dominant factor in the total unmet need for family planning with adjusted odds of 4.19 times higher as compared to those whose partner's approve family planning. The reasons why the partner disapprove the use of family planning is beyond the scope of this study. Many women discontinue contraceptives to please their husbands.[1] In the Philippines, partners desire for more children was the most important obstacle in family planning use by women who wish to space or delay pregnancies.[6] In a survey of more than 6,500 households, one-fourth of the women said they did not want more children, but did not use family planning because of their husband disapproval.[1,6] A review of literature from seven African countries indicated that communication among the couple was positively associated with contraceptive use and the percentage of women using modern contraceptives was consistently higher in the group that had discussed with their husbands. [11,12,13]

Contraceptive Use and Family Planning Preferences

In this study, only 47% of the respondents ever used family planning, this is lower compared to the latest Philippine NDHS wherein 54% of the respondents ever used family planning.5 Among those who used family planning, majority of the women used modern family planning (39%) and 10% used traditional method (withdrawal and rhythm method). This is similar to published data wherein 40% used modern and 14% used traditional methods.[5]

The public sector (hospitals and health centers) was the most popular source (with 60%) of contraception. It is interesting to note that 38% of those who ever used family planning got it from private sector (private doctors or pharmacy).

After the last pregnancy, 85% want to avail of contraception with oral contraceptive pills (35%), implants (24%) and female sterilization (11%). The most popular methods of family planning in the country includes: oral contraceptive pills (21%), withdrawal (10%), female sterilization (7%), and injectables (5%).[5.6]

In terms of the source of information on family planning, the public health workers play a vital role, 42% of the respondents got their information from them followed by the media in 33% of the respondents.

CONCLUSION

After controlling for other respondents' characteristics, the results indicate that the total unmet need was associated with younger women, those who are in 20 – 30 years old age group during their first pregnancy and those who are Roman Catholic and Evangelicals. No association was established between educational attainment of the respondent and their partners. The most significant association was shown in those whose partners disapprove the use of family planning (adjusted OR 4.19).

Majority of women have heard of contraception but only few are practicing them leading to high unmet need for family planning. Most of those who used any family planning methods used modern contraception. Source of contraceptives and contraception information were

still public health sector and public health workers. Most postpartum women have contraceptive plans and they prefer oral contraceptive pills and implants.

RECOMMENDATIONS

The next study should explore the different reasons why partners disapprove family planning focusing on knowledge, attitudes, fertility preferences and ideal number of children. Future studies should also explore the reasons for the low utilization of modern family planning methods. Higher number of study participants should be included for future studies that aim to extrapolate the findings to individuals outside the study.

Implication on Clinical Practice and Public Health

Hospital policies and programs to reduce the unmet need for family planning in our setting should be based on clear understanding of the causes of unmet need for family planning. A strong correlation was established in this study between unmet need and partner's approval on family planning. Future family programs in the hospital should include the partners. The programs should include partner education, the importance of inter-spousal dialogue and how they can support their wives in choosing the best family planning method.

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