Original Article

OUTCOME OF UNINTENDED PREGNANCY AND ASSOCIATED FACTORS AMONG RURAL WOMEN OF REPRODUCTIVE AGE

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ABSTRACT

Background: Unintended pregnancy is well recognized reproductive health problem in developing countries like Bangladesh. It is more problematic in rural Bangladesh where illiteracy, poverty and empowerment crisis of women are common scenarios.

Methods: This cross-sectional study was conducted at Shahdaulatpur village in Mainamati union of Comilla District during the period from July 2017 to June 2018. The study enrolled 317 rural women selected by systematic random sampling technique. Mixed method approach was introduced for data collection to find out the determinants and outcomes of unintended pregnancy among rural women. Focus group discussions and in-depth interviews were arranged for qualitative data and quantitative data were collected through face to face interview by pretested questionnaire. Ethical issues were considered in all aspect of the study.

Results: Mean age of the rural women was 22.1 years with standard deviation of (SD) ± 3.6 years. The average monthly income of the family was 10732 ± 3228 Taka. Among the respondent more than half (55.2%) used contraceptive methods. Oral contraceptive pill (OCP) was their first choice (40.9%) and injections (19.8%) were common among the users of invasive family planning methods. Male participation in contraceptive use was only 8.8%. More than one-third (35.6%) had history of unintended pregnancy and among them majority (70.8%) had mistimed pregnancy and rest of them (29.2%) had unwanted pregnancy. The outcomes of the unintended pregnancy were mostly unplanned birth (93.4%) with (2.6%) miscarriages and termination of pregnancy by (4.4%) menstrual regulation (MR) or abortion. Age and educational status and monthly family income of rural women showed very high significant association with unintended pregnancy ($p<0.001$).

Conclusion: As the quality of future human resource depends on healthy mother and safe motherhood, improvement of family planning knowledge should be given top priority. Hence, care should be taken to improve the status of knowledge and awareness about family planning.

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INTRODUCTION

According to World Health Organization (WHO) and Population Reference Bureau statistics2015, the current population of the world is just over seven billion and it annually continues to grow by 75 to 78 million people. Developing countries account for 97 % of this growth due to high rates and increase in the proportion of young population. The population of most developed countries are estimated to decrease by 2050, while there will be an increase in the population of developing countries. Asian and African countries will contribute to 90% of the population growth, this high rate is due to low use of contraceptive. Low rates of contraceptive usage might be associated with the increase in the number of unintended pregnancies across the world. Almost 210 million women become pregnant annually worldwide, out of whom ,75 to 78 million (35.7%-38%) women experience unintended pregnancy and approximately 42-46 (>50%) millions of these unintended pregnancies are terminated. It was

anticipated that unmet need for contraceptives, growing number of women of reproductive age (15-49yrs) and the desire in reduction of family size will globally increase the number of unintended pregnancies to 92 million within 2015 [1]. Risks of abortion related morbidity and mortality increase as a result of unintended pregnancies, particularly in countries where abortion is against the law. Unsafe abortion, often an outcome of unintended pregnancy, results in the deaths of 80,000 women every year, 95% of which take place in developing countries [2]. Bangladesh has shown remarkable progress in fertility decline from a higher level of 6.3 births per woman in mid-1970's to 2.7 births per woman in 2007; there has also been a sharp increase in the contraceptive prevalence rate, from 7.7 % to 55.8% during the same period [3]. In 2007 only 1.9 births per woman were wanted, indicating that 0.8 births per woman were unwanted [4].

In the context of Bangladesh, there is pressure on girls for early marriage and early childbearing with social and cultural factors, such as insecurity, social norms regarding girls' marriageability associated with her age and dowry playing a role in early marriage. Adolescent girls enter into marital life without proper knowledge of contraception and start childbearing soon after marriage. Prior research in Bangladesh also shows that many have no choice about the timing of marriage and childbearing [5]. Effective programs to prevent unintended pregnancy must use terms that are familiar to women and must build upon cultural understanding of the problem to be prevented. Research should focus on the meaning of pregnancy intentions to women and the processes women and their partners use in making fertility decisions. It should prospectively address the impact of pregnancy intentions on contraceptive use. Both qualitative and quantitative research have contributed to our understanding of fertility decision making; both will be essential to the creation of more effective prevention programs [6].

METHODS

Study design, setting, sample, and sampling: This study was a cross sectional study among 317 married rural women of reproductive age group (15-49 years) in Mainamoti union of Comilla district from 1st July

2017 to 30 June 2018. The rural women were enrolled in the study following systematic random sampling technique. A skip interval was estimated by dividing the total households (population) of the selected rural community and sample size of the study. Followed by rural women of reproductive age were selected from the households using the skip interval. One woman was enrolled randomly from each household.

Data collection: Data were collected through face-to-face interview using a pre-tested data collection sheet. Before preceding the data collection, the detail of the study was explained to each eligible patient and written consent from the patient was obtained. The relevant socio-demographic data along with anthropometric data of the patients were collected and recorded.

Statistical analysis: Computer based statistical analysis were carried out with appropriate techniques and systems. Quantitative data were expressed as mean and standard deviation and qualitative data were expressed as frequency distribution and percentage. Statistical analysis was performed by using Statistical Packages for Social Sciences (SPSS version 21). Data were analyzed according to the objectives of the study. The test statistics used to analyze the data were descriptive and inferential statistics. Descriptive statistics included frequency, percentage, mean and standard deviation. Inferential statistics included Chi square test, which was done to assess association between categorical variables. level of significance was set at 0.05 at 95% confidence interval.

Ethical considerations:

Prior conducting the study, ethical clearance was taken from the NIPSOM (National Institute of Preventive and Social Medicine) Ethical Review Committee. The study neither include any invasive procedure nor any private issues and no drug was tested. Before initiation of the interview, a brief introduction on the aims and objectives of the study was presented to the respondents. The study was conducted according to Helsinki Declaration principles.

RESULTS

Table 1. Baseline characteristics of the respondents (n=317)

Baseline characteristics	Frequency	Percentage
Age the respondents (years)		
< 20	53	16.7
20-24	214	67.5
>24	50	15.8
mean (±SD)	22.1(±3.6)	
Age the husband (years)		
<26	129	40.7

26-30	162	51.1
>30	26	8.2
mean (±SD)	26.8±3.3	
Education level of the respondents		
Illiterate	45	14.2
PSC	138	43.5
JSC	119	37.5
SSC or Above	15	4.8
Education level of the husband		
Illiterate	30	9.5
PSC	156	49.2
JSC	92	29.0
Occupational status of the respondents		
House-wife	246	77.6
Daily labor	32	10.1
Business	9	2.8
Service holder	30	9.5
Occupational status of the husband		
Field worker	159	50.2
Daily worker	91	28.7
Business	67	21.1
Religion		
Islam	248	78.2
Hindu	69	21.8
Family type		
Nuclear family	126	39.7
Joint family	191	60.3
Family size		
1-4 persons	91	28.7
>4 persons	226	71.3
Monthly family Income		
<10000	227	71.6%
10001-15000	55	17.4%
>15000	35	11%
Marital age		
15-17 years	121	38.2
18-20 years	185	58.4
21 years or above	11	3.5
mean (±SD)	17.7±1.4	
Age of the respondents at first pregnancy		
16 to18 years	104	33
19 to 21 years	197	62
22 years or above	16	5
mean (±SD)	18.9±1.5	

Table 2. Distribution of the respondents by number of pregnancy, number of delivery, use of contraception, contraceptive methods

Characteristics	Frequency	Percent
Number of pregnancy (n=317)		
1	61	19.2
2	205	64.7
3	28	8.8

4	23	7.3
History of termination of pregnancy		
Yes	79	24.9
No	238	75.1
Number of delivery (n=317)		
1	119	37.5
2	157	49.5
3 or above	41	12.9
1	119	37.5
2	157	49.5
3or above	41	12.9
Use of contraception		
Yes	175	55.2
No	142	47.8
Contraceptive methods (n=175)		
Norplant	15	4.7
Condom	28	8.8
Permanent method	21	6.6
Natural method	38	12
Injection	63	19.8
Oral pill	10	3.3
Distribution of intended and unintended pregnancy		
Intended	204	64.4
Unintended	113	35.6

Table 3. Distribution of respondents by knowledge on family planning (n=113)

Characteristics	Correct n (%)	Incorrect n (%)
1. Planned family means not more than 2 children	74 (65.5%)	39 (34.5%)
2. It is only the wife's duty to adopt contraceptive method	34(30%)	79(70%)
3. It is insulting for man to use contraceptive method	46(40.7%)	67(59.3%)
4. Contraception can be also done by natural method	45(39.8%)	68(60.2%)
5. Repeated pregnancy is not good for health	79(70%)	34(30%)
6. In between 2 pregnancies minimum gap should be of 1year	40(35.3%)	73(64.7%)
7. Timing of pregnancy is very important	32(28.3%)	81(71.7%)
8. Early pregnancy is very harmful for women's health	84(74.3%)	29(25.7%)

Table 4. Distribution of the respondents by contraceptive method use before the last pregnancy (n=113)

Characteristics	Frequency	Percent
Use of contraceptive method before last pregnancy		
Not used	48	42.5
Irregularly used	65	57.7

Table 5. Distribution of preference for larger family from husband or in-laws and distribution of son preference (n=113)

Characteristics	Frequency	Percent
Pressure from her husband and husband's' family member to have the baby		
Yes	70	61.9
No	43	38.1

Table 6. Distribution of respondents by decision to choose contraceptive method (n=113)

Characteristics	Frequency	Percent
Decision regarding choice of contraceptive method		
Women herself	76	67.3
Women's husband	37	32.7

Table 7. Distribution of the respondents by last pregnancy outcome and availability of health care facilities

Characteristics	Frequency	Percent (%)
Result of last pregnancy		
Miscarriage	3	2.6
Abortion	5	4.4
Delivery	105	93
Health care facility available near house		
Yes	99	87.7
No	14	12.3
Place of health care facility		
Community clinic	102	90.2
Upazila health complex and other government centers	7	5.7
Private	4	4.1
Place of family planning service		
Community clinic	90	79.6
Sub-centre	7	6.2
Pharmacy	10	8.8
NGO's and Others	6	5.4
Source of family planning service provider		
CHCP	90	79.8
Health assistant	13	11.7
Nurse	7	6.3
Medical officer	3	2.2
Family planning information		
Community clinic	78	69
Upazila health complex	3	2.7
Sub-centre	8	7.1
Mass media	3	2.7
Health worker	5	4.4
NGO's	16	14.1

Table 8. Association between unintended pregnancy and selected socio-demographic features

Characteristics	Unintended pregnancy		χ^2	P
	Yes n (%)	**No n (%)**		
Age of the respondents			55.18	0.001
<20 years	28(52.8)	25(47.2)		
20-24 years	48(22.4)	166(77.6)		
>24 years	17(74)	13(26)		
Educational status of the respondents				
Illiterate	26(57.8)	19(42.2)	15.4	0.001
PSC& JSC	51(38.1)	83(61.9)		
SSC or above	36(26.1)	102(73.9)		
Monthly family income (taka)				
<10000	93 (41%)	134 (59%)	14.4	0.001
10001-15000	12 (21.8%)	43 (78.2%)		
>15000	5 (14.3%)	30 (85.7%)		

Significance: p<0.001 at 95% CI

Qualitative findings

Qualitative data were collected through 4 in-depth Interviews (IDIs) and 2 focus group discussions (FGDs) who had unintended pregnancy were selected for qualitative information on the basis of research theme.

Focus group discussion (FGD):

1. Fertility control
"Men were the decision makers of the family"

The experiences of focused group discussions (FGD) among rural married women of reproductive age group who had unintended pregnancy recently suggested that almost two-thirds of them wanted to limit childbearing and have a smaller sized family. But it was evident that men were the decision makers of the family. Even through the family planning and reproductive health traditionally focused on the women of the household, they do not have the final say in size of the family.

2. Birth spacing and timing:
"I didn't realize that I was pregnant even my belly was very big and I had no idea of my pregnancy until very late into pregnancy"

Shorter inter-pregnancy interval was also evident due to some characteristics and factors. It was not uncommon that girls entered in to sexual relationship after marriage with limited knowledge. Marriage at young age was associated with this.

3. Contraceptive choice:
Although men get the priority in all matters, use of contraceptive methods and choice of methods to be used are surprisingly empowered by women. Husbands and wives think of it embarrassing to discuss about family planning and methods to be used. Husbands tend to give the freedom to choose contraceptive methods except the one in which he has to involve. Oral pill, natural method, injection, implants are commonly used with majority being the oral pill. Use of female sterilization are still a matter of social stigma. Many find it anti-religious and many find it insecure to limit the family size in such way.

4. Outcomes of pregnancy:
Majority of the unintended pregnancy ended with an unplanned birth. Women felt unintended to bear the child at a very early stage but later on it decreases. The very few of the member of abortion were inevitable and due to poor health condition.

"I had to bear the baby, I had nothing to do, what will my husband say when he will hear that I wanted to end the pregnancy? He would beat me sure"

DISCUSSION

In this study, average age of the woman was 22.1 years with standard deviation of (SD) ± 3.6 years. A study named "Determinants of unintended pregnancies in rural Ghana showed that mean age of the respondents was 25.6 ± 6.5 years [7]. In the present study, among the respondent (43.5%) were educated up to PSC level, more than one-third (37.5%) were educated up to JSC level, (14.2%) were illiterate or without any academic learning (14.2%) and only (4.7%) were passed the SSC or above. In another study, semi-structured questionnaire was used for data collection. The percentage of illiterate respondents was 3.5% in urban area and 4.1% in rural area. According to BDHS survey 2014 twenty-five percent of women age 15-49 have no education, while 14 percent of women have completed secondary or higher-level education.

[8]. In present study, among the early age group (47%) and in the highest age group (77.6%) adolescent pregnancy more prevalent whereas in middle age < one-fourth (26%) gave history of unintended pregnancy. Age was highly significant association with unintended pregnancy. A study reveal that about 29% of the pregnancies were unintended and the frequency of unintended pregnancy was higher among the older, less educated, higher parity, and poor women [9]. Among the respondent less than one third (24.9%) had history of menstrual regulation/ abortion and rest of them (75.1%) had history of menstrual regulation/ abortion. Average number of menstrual regulation/ abortion 0.2 with the standard deviation (SD)±0.4. According to the 2007 BDHS, the rates of ever-use of MR among ever-married and currently married women gradually increased from 1996-97 to 2004 and remained steady at 6% until 2007. BDHS 2011 data shows that ever-use of MR has now increased to the current rate of 9% . Interestingly, knowledge of MR declined from 81% among currently married women to 70% between 2007 and 2011 BDHS.

CONCLUSION

To ensure healthy mother and safe motherhood, knowledge of rural women on family planning should be improved as a top priority. Hence, necessary strategies should be taken to improve knowledge and awareness of rural women regarding family planning, unintended pregnancy and its worse outcome, and contraceptive methods of through health education intervention. In addition, availability of family planning, MR and post abortion care services should be strengthened for rural women of reproductive age.

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