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Incomplete Abortion and Associated Risk Factors of the Patients Admitted in Rajshahi Medical College Hospital, Rajshahi, Bangladesh

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Abstract

This cross sectional type of descriptive study was carried out with a view to find out the situation of incomplete abortion and associated risk factors of the patients admitted in Rajshahi Medical College Hospital. The sample size was 150 which were selected purposively. This study showed that 37.3% of the respondents were in the age group of 25-29 years. The mean age of the respondents was 25.14 ± 4.95 years. Majority (75.3%) had history of contraceptive use. It was observed that 30.0% had hemoglobin level of 15 gm/dl followed by 22.7% and 20.0% constituting hemoglobin level of 14 gm/dl and 13 gm/dl respectively. Most (67.3%) respondents had history of previous history of abortion and 65.3% of the respondents had chronic vaginal bleeding. Uses of oral contraceptive pill, history of previous abortion were found the associated risk factors of abortion in this study. Intensifying reproductive health education would assist in the reduction of complications of abortions.

Key words: Abortion, contraceptive, reproductive health.

AMS Classification: 92C50.

1. Introduction

An incomplete abortion is an abortion that has only been partially successful. The pregnancy has ended – no fetus will develop, but body has only expelled part of the tissue and products of pregnancy (Women waves, 2014). A total of 266 women seeking care at health facilities for the treatment of incomplete abortion in Tigrau, Ethiopia were studied, and factors associated with severe complications related to unsafe abortion were assessed. Women had significantly higher odds of experiencing severe clinical complications if they were married compared with unmarried (odds ratio 3.98; 95% confidence interval, 1.75-9.04) or were seen in a mid-or low-level health facility (a health center or health post) compared with a high-level facility (a hospital) (odds ratio 4.77; 95% confidence interval, 1.87-12.19). Safe abortion services by mid-level providers so that pregnancy termination no longer means placing women's lives and health in danger (Gerdts, C., et.al. 2012). A cross-sectional, descriptive study was conducted in Department of Obstetrics and Gynaecology, Unit 3, Dow Medical College and Civil Hospital Karachi. The frequency of unsafe abortion was 1.35% and the case fatality rate was 34.9%. A complete family was the main reason for induced abortion (14/29; 48.2%) followed by being unmarried (8/29, 27.5%) and domestic violence in 5/29 cases (17.2%). The high maternal mortality and morbidity of unsafe abortion in a study highlights the need for improving contraceptive and safe abortion services in Pakistan (Shah, N., et.al. 2011). Romania improved contraceptive policies and services, and Bangladesh made advances in emergency obstetric care and family planning (Rachootin, P., et.al. 1982). Unsafe abortion and inadequate post-abortion care are significant contributors to maternal mortality, which is a major cause of death among women of reproductive age worldwide (Bhutta, S,. et.al. 2003). In both India and Zambia, abortion was legalized in the early 1970's, but due to a lack of adequate services and continued procedural barriers, safe abortions remain limited. However, due to required consent from three registered medical practitioners and a lack of available safe abortion services, many women continue to rely on unsafe, clandestine abortions, which contribute to the maternal mortality ratio, currently at 591 deaths per 100,000 live births. Only recently has the Zambian government made a commitment to address barriers to safe abortion

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services (Janie, B., et.al. 2011). Access to legal menstrual regulation services is poorer in rural areas than in urban areas. As a result, in both urban and rural areas, a substantial proportion of women are believed to obtain abortions from traditional midwives or attempt to perform the abortion themselves. The maternal mortality ratio is estimated to be much higher in Bangladesh (480 maternal deaths per 100,000 births) than in the Philippines (100 per 100,000). A survey of health workers in Bangladesh in the late 1970s indicated that as many as 26% of maternal death were due to abortion; Philippine government statistics indicate that about 10% of recorded maternal deaths were classified as due to abortion (Susheela, S., et.al. 1997). Illegal abortion deaths are disproportionately due to infection. In a 1994 US review, 62% of illegal abortion deaths and 51% of spontaneous abortion deaths were from infection, whereas only 21% of legal abortion deaths were from infection. Risk of death from post abortion sepsis is greatest for younger women and unmarried women, and it is more likely with procedures that do not directly evacuate the uterine content (Wikipedia, 2014).A report from WHO showed a decline in maternal mortality worldwide from 546,000 deaths in 1990 to 358,000 in 2008, and a parallel decline in death from unsafe abortion from 69,000 to 47,000 over the same interval. The actual number of unsafe abortions worldwide increased from 19.7 million in 2003 to 21.6 million in 2008 because of the growth of the population of women of childbearing age (Glowm, 2014). Unsafe abortion causes approximately 47,000 maternal deaths and high levels of morbidity every year. In settings where abortion is legally restricted or access to safe services is limited, women with unwanted pregnancies often resort to unsafe abortions and subsequently require urgent medical attention to treat incomplete abortions or severe complications such as bleeding or infection (Pacconsortium, 2014).Contraceptive usage is generally low and cultural and traditional factors may play a role, but expanded sex education programmes and continued contraceptive counseling need reinforcing before attempts are made to legal issues regarding termination (Mahomed, K., review the et.al. 1992). Advancing maternal and paternal age are known to be associated with increasing chance of miscarriage. Other risk factors include being underweight or overweight, smoking and high alcohol consumption (Oliver, A., et.al. 2014). It was

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also found that marked geographical inequities as women living in the poorest states have a higher risk of having an unsafe abortion (Sousa, A., et.al. 2010). Motivations to exclude a parent were often based on particular family circumstances or experiences that suggested that involvement would not be helpful, might be harmful, or might restrict a minor's ability to obtain an abortion (Hasselbacher, L., et.al. 2014). The complications of unsafe, illegal abortions are a significant cause of maternal mortality in Botswana (Smith, 2013). While improved contraceptive use can help reduce unintended pregnancy and abortion, some abortions will remain difficult to prevent, because of limits to women's ability to determine and control all circumstances of their lives (Akiinrinola, A., et.al. 1998; Lukman, H., et.al. 1996). The aim of the present study was to investigate on incomplete abortion and determine associated risk factors of the patients admitted in Rajshahi medical college hospital.

2. Materials and Methods

This cross sectional type of descriptive study was carried out in the gynae and obstetrics wards of Rajshahi Medical College Hospital, Rajshahi. Sample size was 150 and that was selected purposively. Data were collected (March to December 2018) from all the patients with history of incomplete abortion from admitted in Gynae and Obstetric wards of Rajshahi Medical College Hospital, Rajshahi, according to a duly pre-tested and partially structured questionnaire by face-to-face interview with the help of a key informant. Dependent variable considered in this study is incomplete abortion. We considered as independent variables were age, education, occupation, monthly family income, residence, family type, history of contraceptive use, blood group and haemoglobin level. The data were analyzed according to the objectives of the study by using SPSS/PC+ software computer programme. Descriptive variables were explained with mean and standard deviation. Hemoglobin, or Hb, is usually expressed in grams per deciliter (g/dL) of blood. A low level of hemoglobin in the blood relates directly to a low level of oxygen.

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3. Results

Respondents		Variables	Respondents	
No.	%		No.	%
		Haemoglobin level gm/dL:		
26	17.3	11	5	3.3
42	28.0	12	14	9.3
56	37.3	13	30	20.0
17	11.3	14	34	22.7
9	6.0	15	45	30.0
		16	21	14.0
		20	1	0.7
113	75.3	Monthly family income		
37	24.7	Up to Taka 10,000	131	87.3
		Taka 10,001-20,000	16	10.7
114	76.0	More than Taka 20,000	3	2.0
3	2.0	$\overline{X} \pm SD = Tk.7607.00 \pm$		
7	4.7	5190.64		
26	17.3	<u>Histopathological analysis</u>		
		Yes	2	1.3
140	93.3	No	31	20.7
4	2.7	Do not know	15	10.0
6	4.0			
Š				
	No. 26 42 56 17 9 113 37 114 3 26 140 4 6	No. % 26 17.3 42 28.0 56 37.3 17 11.3 9 6.0 113 75.3 37 24.7 114 76.0 3 2.0 7 4.7 26 17.3 140 93.3 4 2.7 6 4.0	No.%No.%2617.3114228.0125637.3131711.31496.015162011375.3Monthly family income3724.7Up to Taka 10,00011476.0More than Taka 20,00032.0 $\overline{X} \pm SD = Tk.$ 7607.00 \pm 74.7Histopathological analysis14093.3No42.7Do not know64.0Interval	No. % Haemoglobin level gm/dL: 26 17.3 11 5 42 28.0 12 14 56 37.3 13 30 17 11.3 14 34 9 6.0 15 45 16 21 20 1 113 75.3 Monthly family income 131 37 24.7 Up to Taka 10,000 131 Taka 10,001-20,000 16 114 76.0 31 2.0 $\overline{X} \pm SD = Tk. 7607.00 \pm$ 5190.64 26 17.3 Histopathological analysis 2 140 93.3 No 31 4 2.7 Do not know 15 6 4.0 15 15

Table 1: Distribution of the respondents according to socio-demographicvariables (n=150).

Variables	Respondents		Variables	Respondents	
	No.	%		No.	%
History of previous abortion:			Occupation:		
Yes	91	67.3	Service	26	17.3
NO	59	39.3	Farmer	3	2.0
Complications of incomplete			Day labour	6	4.0
abortion			Business	11	7.3
Chronic vaginal bleeding	98	65.3	Housewife	103	68.7
Foul smelling vaginal discharge	2	1.3	Students	1	0.7
Fever and abdominal pain	12	8.0	History of uterine		
Multiple	38	25.3	evacuation following		
Treatment for placenta			<u>abortion</u>		
related disease			Yes	48	32.0
Yes	147	98.0	No	102	68.0
No	3	2.0			
	5	_10			

Table 2: Distribution of the respondents according to incomplete abortion and
socio-demographic variables (n=150).

Table 3: Relationship between age group of the respondents and sign-syndromeof the respondents (n=150).

Age	Sign-syndrome of abortion				
group of the	Lower	Per vaginal	Expulsion of	Don't	Total
respondents	abdominal	bleeding	product of	know	
	pain	_	conception		
< 20 years	6	16	0 (0.0%)	4	26
	(23.1%)	(61.5%)		(15.4%)	(17.3%)
20-24 years	37	14	0 (0.0%)	0 (0.0%)	51
	(72.5%)	(27.5%)			(34.0%)
25-29 years	31	15	3 (6.1%)	0 (0.0%)	49
	(63.3%)	(30.6%)			(32.7%)
30-34 years	12	0 (0.0%)	3 (16.7%)	3	18
	(66.7%)			(16.7%)	(12.0%)
34+ years	6	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (4.0%)
	(100.0%)				
Total	92	45	6 (0.6%)	7 (4.7%)	150
	(61.3%)	(30.0%)			(100.0%)

 $\chi^2 = 52.756, df = 12, p < 0.001$

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Regarding age distribution of the respondents it was found that out of 150 respondents majority (37.3%) were in the age group of 25-29 years, (28.0%) were in the age group of 20-24 years, (17.3%) were in the age group of less than 20 years, (11.3%) were in the age group of 30-34 years and only (6.0%) belonged to age group of 34 years and above. The mean age of the respondents was $25.14 \pm$ 4.95 years. Most (75.3%) of the respondents had history of contraceptive use and (24.7%) had no history of contraceptive use. It was observed that (30.0%) of the respondent had hemoglobin level of 15 gm/dl followed by (22.7), (20.0%), (14.0%), (9.3%), (3.3%) and (0.7%) constituted hemoglobin level of 14 gm/dl, 13 gm/dl, 16 gm/dl, 12 gm/dl, 11 gm/dl and 0.7 % respectively. About 76.0% of the respondents complained of vaginal bleeding, (17.3%) had multiple symptoms, abdominal pain was the complaints of 4.7% cases and a few (2.0%) had abdominal distension. Regarding signs it was found that vaginal bleeding was the major (93.3%) sign of the respondents followed by enlarged uterus and multiple sign was observed in (4.0%) and (2.7%) of the respondents. Most (67.3%) of the respondents had history of previous abortion followed by (39.3%) did not have history of previous abortion.Regarding complication of incomplete abortion it was found that majority (65.3%) of the respondents had chronic vaginal bleeding followed by multiple complications constituted 25.3%, 8.0%, comprised fever and abdominal pain. It was also observed that 1.3% of the respondents had complained of foul smelling vaginal discharge. It was observed that the relationship status between the age group of the respondents and the signsyndrome of abortion was statistically significant.

Unmarried	Distribution of the respondednts by marital status
condition	
(1.33 %)	
	Married
	(98.67 %)

Figure 1: Distribution of the respondents by marital status

It was revealed that majority (98.67%) of the respondents was married and the rest (1.33%) belonged to unmarried population.

4. Discussion

This cross sectional type of descriptive study was carried out with a view to find out the situation of incomplete abortion and associated risk factors of the patients

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admitted in Rajshahi Medical College Hospital and socio-demographic characteristics of the patients with incomplete abortion. The sample size was 150 which were selected purposively. Present study showed that out of 150 respondents (37.3%) were in the age group of 25-29 years followed by (28.0%) and (17.3%) consisted of the age group of 20-24 years and less than 20 years respectively. The mean age of the respondents was 25.14 ± 4.95 years. Another study showed that the abortion rate in the Philippines is within the range of 20-30 induced abortions per 1,000 women aged 15-49 (Susheela, S., et.al. 1997). The men age of the eligible adolescents was 17.5 years (SD \pm 1.3) (Sousa, A., et.al. 2010; Lema, V., et.al. 2002). Most (66%) of the women were in age group 20-29 years age (Gamzell, K., et.al. 2014; Ojha, N., et.al. 2013). Majority (75.3%) of the respondents had history of contraceptive use and (24.7%) had no history of contraceptive use. In another study contraceptive usage was found generally low (Smith, S., 2013; Menezes, G., et.al. 2009). Regarding hemoglobin level it was observed that (30.0%) of the respondent had hemoglobin level of 15gm/dl followed by (22.7%), (20.0%), (14.0%), (9.3%), (3.3%) and (0.7%) constituted hemoglobin level of 14 gm/dl, 13 gm/dl, 16 gm/dl, 12 gm/dl, 11 gm/dl, and (0.7%) respectively. The hemoglobin level of the pregnant women needs to be increased at satisfactory proportion. Majority (76.0%) of the respondents complained of vaginal bleeding followed by (17.3%) consisted of multiple symptoms. Majority (93.3%) of the respondents was actually suffering from vaginal bleeding followed by enlarged uterus and multiple sign was observed in (4.0%) and (2.7%) of the respondents. Regarding history of previous abortion it was found that was majority (67.3%) of the respondents had history of previous abortion followed by (39.3%) did not have history of previous abortion. Majority of the respondents had chronic vaginal bleeding followed by multiple complications constituted (25.3%), (8.0%), comprised fever and abdominal pain. It was also observed that (1.3%) of the respondents had complain of foul smelling vaginal discharge. Another study showed that most frequent complication was septicemia (34; 79%) followed by uterine perforation with or without bowel perforation (13, 30.2%) and hemorrhage (9; 20.9%) (Shah, N., et.al. 2011). Majority (98.67%) of the respondents was married. Shah, N., et.al.showed that the majority of women who had an induced abortion were married (19/29, 65.5%) (Shah, N., et.al. 2011). It would therefore necessary to get more people informed on safe abortion. Increased utilization of family planning would help reduce the

number of unwanted pregnancy which finally results in abortions. Intensifying reproductive health education would also assist in the reduction of complications to abortions and to their recurrences.

5. Conclusion

The present study provided some important basic information about the incomplete abortion and associated risk factors of the patients admitted in Rajshahi Medical College Hospital with socio-demographic characteristics of the patients with incomplete abortion. This cross-sectional study showed a gloomy picture of the risk factors regarding incomplete abortion. Intensifying reproductive health education would also assist in the reduction of complications to abortions and to their recurrences. Reducing unsafe abortions requires a number of strategies and consented effort from all stakeholders. There is a need for improving contraceptive and safe abortion services. Socio-economic condition of women especially women of reproductive age should be improved.

Ethical Consideration: During the data collection permission were taken from the hospital authority. There was always a female doctor or nurse during data collection.

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