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The Pattern of Pregnancy Related Complications and Health-Seeking Behavior of Rural Women

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Abstract **Original Research Article**

Objective: In this study our main goal is to evaluate the pattern of pregnancy complications and health care seeking behavior used by families in rural Bangladesh. ***Method:*** This cross-sectional prospective observational type of study was conducted among 112rural women of reproductive age group of Anwara Upazilla, who delivered or whose baby died during delivery due to pregnancy related complication within last 24 months conducted at two community clinic, two upazilla union health Centre and two family welfare centers during 6 months from January 2010 to June 2010. ***Results:*** During the study, among the respondents majority of them (82%) were in the age group of 20 – 30 years and the mean(±SD) age of the respondents was 25.05 (± 4.33) years. Also,33 respondents (66.7%) suffered from pregnancy complications like excessive vomiting and severe headache with blurring vision; 27.3% respondent suffered from swelling of leg or face, 18.2% respondents from anemia.52.2%) respondents seek treatment in government hospital and rest of them in private clinic. ***Conclusion:*** From our study we can conclude that, all the respondents who developed complications during delivery and after delivery sought health care. Among the respondents who did not receive antenatal care developed more complications during pregnancy period and delivery period which is statistically. Care seeking behavior is closely related with pregnancy complication. Timely and properly seeking treatment could help to reduce maternal mortality and morbidity and ultimately helps to reach MDG Goal.

Keywords: Pregnancy complications, care seeking behavior and severe headache.

INTRODUCTION

Pregnancy is a normal, healthy state that most women desire at some point of their lives. Yet while pregnancy and childbirth should be an occasion for rejoicing, life-threatening complications may occur, which if inappropriately managed, could lead to maternal death or disability. Most of these deaths (99%) occur in developing countries. Every minute, one maternal death occurs somewhere in the developing world. Every year over half a million women die during pregnancy and following childbirth, 174 000 of these in the South-East Asia (SEA) Region of WHO. The maternal mortality ratio (MMR) in the SEA Region in 2000 was estimated at 460 per 100000 live births. The lifetime risk of maternal death is 1 in 58 in this Region[1].

Complications of pregnancy and childbirth cause more deaths and disability than any other reproductive health problems [2]. In developing countries, many mothers experience serious health problems during pregnancy, delivery and the postnatal period that require professional care, but they often remain unaware of the serious nature of their illness. Of the 5, 29,000 maternal deaths occurring annually world-wide, 99% occur in developing countries [3].

Seeking care from a basic or comprehensive facility in response to obstetric complications is a key behavior promoted in safe motherhood programs. This study examined the pattern of pregnancy complications and care seeking behavior used by families in rural Bangladesh.

OBJECTIVE

General Objective

- To determine the pregnancy related complications and health care seeking behavior of rural women.

Specific Objectives

- To assess the ante natal care information among the respondents.
- To determine the socio-demographic status of rural mothers.

METHODOLOGY

Type of study	**Cross-sectional study**
Place of study	Two community clinic, two upazilla union health Centre and two-family welfare centers
Study period	6 months from January 2010 to June 2010.
Study population	112rural women of reproductive age group of AnwaraUpazilla, who delivered or whose baby died during delivery due to pregnancy related complication within last 24 months.
Sampling technique	Purposive

Study procedure

After reached at Anwaraupazilla, Upazilla Health Complex (UHC) was visited. With the help of THO at first a list of villages was taken. Then randomly selected 3 villages. From that 3 village sample were taken. Face to face interview of the participants were conducted with the semi-structured, pre-tested questionnaire. The interview was conducted anonymously and privately as much as possible. Before preceding the data collection, the detail of the study was explicitly explained to each eligible respondent and informed written consents from the respondents were obtained.

Data Analysis

Data were entered in the template of Statistical program, SPSS-15 after necessary editing and coding. Descriptive statistics were generated for socio-demographic variables and were presented with relative frequency. For assessing the compilations and health seeking pattern relevant data were analyzed along with the descriptive statistics. Cross tabulation of the selected complication and key health seeking practice variables were done to explore the association through chi square test at a significance level of $P<0.05$.

RESULTS

In table-1 shows socio-demographic variables among the respondents. Majority of them (82%) were in the age group of 20 – 30 years and the mean (±SD) age of the respondents was 25.05 (± 4.33) years. The following table is given below in detail:

Table-01: Distribution of socio-demographic variables among the respondents (n = 112)

Socio-demographic Variables		**Frequency**	**Percentage (%)**
Age Groups	< 20 Years	05	4.5
	20 to 30 Years	92	82.1
	> 30 Years	15	13.4
Religion	Muslim	72	64.3
	Hindu	40	35.7
Monthly Family Income	< 5000 Tk	52	46.4
	5000 to 10000 Tk	52	46.4
	> 10000 Tk	08	7.2
Family Size	< 4	05	4.5
	4 to 5	68	60.7
	> 5	39	34.8
Total		112	100.0

In table-2 shows educational & occupational status among the respondents and their husbands. Among the respondents 40.2% were illiterate and could sign only, 14.3% studied up to SSC or above. Among the husbands 50.8% were illiterate and could sign only, 10.2% studied up to SSC or above. The following table is given below in detail:

Table-2: Distribution of educational & occupational status among the respondents and their husbands (n = 112)

Educational & Occupational Status		Among Respondents (%)	Among Husbands (%)
Educational Status	Illiterate	21.4	25.8
	Can Sign Only	18.8	25.0
	Class I – V	23.2	19.6
	Class VI – X	22.3	18.8
	SSC Passed	11.6	4.5
	HSC & Above	2.7	5.7
Occupational Status	House Wife	99.1	0.0
	Day Laborer	0.0	38.4
	Service Holder	0.9	18.8
	Farmer	0.0	15.2
	Businessman	0.0	17.8
	Others	0.0	9.8
Total		100.0	100.0

In table-3 shows background information of family among the respondents where in patients' family 80% patients' husbands were main earning member of the family. Also, 51.8% patients belong from nuclear Family. The following table is given below in detail:

Table -3: Distribution of background information of family among the respondents (n = 112)

Background Information of Family		Frequency	Percentage (%)
Earning Member	Self	01	0.9
	Husband	90	80.3
	Others	21	18.8
Type of Family	Joint Family	54	48.2
	Nuclear Family	58	51.8
Type of House	Kacha	97	86.6
	Semi Pacca	11	9.8
	Pacca	04	3.6
Total		112	100.0

In table-4 shows distribution of decision makers in family among the respondents. Most of the cases husbands were responsible for decision in health care seeking of respondents.The following table is given below in detail:

Table-4: Distribution of decision makers in family among the respondents (n = 112)

Decision Makers in Family		Frequency	Percentage (%)
About Family Affairs	Husband	94	83.9
	Parent-in-Laws	15	13.4
	Others	03	2.7
About Health Care Seeking	Husband	97	86.6
	Parent-in-Laws	12	10.7
	Others	03	2.7
Total		112	100.0

In table-5 shows reproductive histories among the respondents. Most of the patients had 2 children, 41.1%. The following table is given below in detail:

Table-5: Distribution of reproductive histories among the respondents (n = 112)

Reproductive History		Frequency	Percentage (%)
No. of Pregnancy	1		28.6
	2		38.4
	3		17.9
	4		8.0
	5		7.1
No. of Children	1		32.1
	2		41.1
	3		14.3
	4		10.7
	5		1.8
Total		112	100.0

In Table—6 shows distribution of ante natal care information among the respondents. Among the respondent 63.4% received ANC, among those who have received ANC; 32.4% took it more than 4 times, 43.7% received it in four occasions and around 24% received it in three or less occasions. The following table is given below in detail:

Table-6: Distribution of ante natal care information among the respondents

ANC Information		***Frequency***	***Percentage (%)***
ANC (n = 112)	Received	71	63.4
	Not Received	41	36.6
No. of ANC Visits (n = 71)	< 4 Times	17	23.9
	4 Times	31	43.7
	> 4 Times	23	32.4
Place of ANC (n = 71)	FWC	19	26.8
	Govt. Hospital	34	47.8
	Private Hospital	12	16.9
	Satellite Clinic	06	8.5
Reason for Not Seeking ANC (n = 41)	No Money	26	63.4
	Prohibition from Family Members	15	36.6

In table-7 shows post-natal care information among the respondents. Most of the patients didn't receive any post-natal care, 74.1%. The following table is given below in detail:

Table -7: Distribution of post-natal care information among the respondents

PNC Information		**Frequency**	**Percentage (%)**
PNC (n = 112)	Received	29	25.9
	Not Received	83	74.1
Reasons for PNC (n = 29)	For Advice	21	72.4
	For Complication	08	27.6
Place of PNC (n = 29)	Govt. Hospital	08	27.6
	Private Clinic	06	20.8
	Satellite Clinic	13	44.8
	Pharmacy	01	3.4
	At Home	01	3.4
Reason for Not Seeking PNC (n = 83)	Don't Know	71	85.6
	Expenditure	09	10.8
	Refusal of Decision Maker of Family	02	2.4
	Distance from Health Facility	01	1.2

In table-8 shows complications among the respondents where 70.5% patients had complication during pregnancy. The following table is given below in detail:

Table-8: Distribution of complications among the respondents (n = 112)

	Complications		
	During Pregnancy	***During Delivery***	*Post-Delivery*
Present	33 (29.5)	15 (13.4)	14 (12.5)
Absent	79 (70.5)	97 (86.6)	98 (87.5)

In table-9 shows types of complications among the respondents. Among 33 respondents (66.7%) suffered from pregnancy complications like excessive vomiting and severe headache with blurring vision; 27.3% respondent suffered from swelling of leg or face, 18.2% respondents from anemia; 15.2% respondents suffered from burning micturation, 12.1% respondents from ante partum haemorrhage and convulsion. The following table is given below in detail:

Table-9: Distribution of types of complicationsamong the respondents

Types of Complications		
During Pregnancy (n = 33)	**During Delivery (n = 15)**	Post-Delivery (n = 14)
Excessive Vomiting (66.7%)	Obstructed Labour (33.3%)	High Fever with Foul Smelling Discharge (85.7%)
Severe Headache (66.7%)	Prolonged Labour (26.7%)	Post-partum Hemorrhage (42.9%)
Blurring of Vision (66.7%)	Eclampsia (26.7%)	Post-partum Eclampsia (42.9%)
Swelling of Leg/Face (27.3%)	Abnormal Position of Foetus (13.3%)	
Anaemia (18.2%)		
Burning Micturition (15.2%)		
APH (12.1%)		
Convulsion (12.1%)		

In table-10 shows delivery information among the respondents. Most of the patients deliver occurred in home, 78.6%. The following table is given below in detail:

Table-10: Distribution of delivery information among the respondents (n = 112)

Delivery Information		**Frequency**	**Percentage (%)**
Place of Delivery	Home	88	78.6
	Hospital	24	21.4
Mode of Delivery	NVD	106	94.6
	LUCS	06	5.4
Delivery Conducted by	TBA	65	58.0
	Nurse/Paramedics	20	17.9
	Doctor	10	9.0
	FWV	08	7.1
	Relatives	08	7.1
	CSBA	01	0.9

In table-11 shows treatment seeking behavior during complications among the respondents. Out of 33 respondent who faced complication during their pregnancy 23 (70%) sought treatment and 10 (30%) didn't take any treatment. Among them 12 (52.2%) respondents seek treatment in government hospital and rest of them in private clinic. The following table is given below in detail:

Table-11: Distribution of treatment seeking behavior during complications among the respondents

Treatment Seeking Behaviors		**Complications**		
		During Pregnancy	***During Delivery***	*Post-Delivery*
Sought Treatment	Yes	23 (69.7)	15 (100.0)	14 (100.0)
	No	10 (30.3)	00 (0.0)	00 (0.0)
Place of Seeking Treatment	Govt. Hospital	12 (52.2)	10 (66.7)	03 (21.4)
	Private Clinic	11 (47.8)	03 (20.0)	05 (35.7)
	Satellite Clinic	00 (0.0)	00 (0.0)	02 (14.3)
	Pharmacy	00 (0.0)	00 (0.0)	02 (14.3)
	At Home	00 (0.0)	02 (13.3)	02 (14.3)
Care/Treatment Provided by	Doctor	19 (82.6)	12 (80.0)	08 (57.1)
	Nurse/Paramedics	04 (17.4)	01 (6.7)	04 (28.6)
	TBA	00 (0.0)	02 (13.3)	00 (0.0)
	FWV	00 (0.0)	00 (0.0)	02 (14.3)
Types of Treatment Received	Tablets/Capsules	19 (82.6)	01 (6.7)	09 (64.3)
	Saline/Injections	04 (17.4)	14 (93.3)	05 (35.7)
Barriers Faced While Seeking Treatment	No Barrier Faced	15 (65.3)	08 (53.3)	13 (92.9)
	Expenditure	07 (30.4)	04 (16.7)	01 (7.1)
	Delay in Starting Treatment	01 (4.3)	03 (20.0)	00 (0.0)

In table-12 shows association between ANC and complications among the respondents. Among 33 respondents, patients who faced complication during pregnancy, only 48.8% received ANC. The following table is given below in detail:

Table-12: Association between ANC and complications among the respondents

Complications		**ANC**		**Total**	**χ^2 Test Significance**
		Received	**Not Received**		
		n (%)	n (%)	n	
Pregnancy Complication	Present	13 (18.3)	20 (48.8)	33	P = 0.001^{HS}
	Absent	58 (81.7)	21 (51.2)	79	
Delivery Complication	Present	06 (8.4)	09 (21.9)	15	P = 0.083^{NS}
	Absent	65 (91.6)	32 (78.1)	97	
Post-Delivery Complication	Present	07 (9.9)	07 (17.1)	14	P = 0.415^{NS}
	Absent	64 (90.1)	34 (82.9)	**98**	
Total		71	41	112	

In table-13 shows health seeking behavior according to complications among the respondents. Out of 14 respondents 2.86% health seeking behaviorwere unhealthy. The following table is given below in detail:

Table-13: Distribution of health seeking behavior according to complications among the respondents

Complications	**Health Seeking Behavior**			
	Healthy Behavior		Unhealthy Behavior	
	n	%	n	%
Pregnancy Complication (n = 33)	23	69.7	10	30.3
Delivery Complication (n = 15)	13	86.7	02	13.3
Post-Delivery Complication (n = 14)	10	71.4	04	28.6

DISCUSSION

In this study 63.4% respondents had received antenatal checkup from different health facilities. <4 times received 23.9% and 4 times taken 43.7% and >4 times 32.4%. Promotion of antenatal checkup is essential for detection of high-risk pregnancy. Place of antenatal care were government hospital 47.8%, FWC 26.8%, private hospital 16.9%, satellite clinic 8.5%.

The necessity of antenatal checkup is to be promoted by motivation of other family members including husband. The provision of financial incentives in promoting and getting ANC, delivery care and post-natal care through the Demand Side Financing scheme of the Department for International Development UK has been found to be encouraging. The institutional or delivery under the care of skilled birth attendant has been found to increase from 18% national average to 27% in the DSF areas in Bangladesh [5]. From this finding government of Bangladesh is planning to expand the program in other areas.

In this study ANC receiving rate was relatively higher might be due to availability of health facilities in the study place because there is a community clinic, satellite clinic, and Family welfare center and also Upazilla Health complex nearby. The accessibility of ANC facility close proximity to the mother is essential. In future availability of functional community clinic thorough the country might change the scenario of ANC amongst the rural community.

Among the respondents 30% faced complications during their last pregnancy period and complications were excessive vomiting and severe headache with blurring vision 66.7%, swelling of leg/face 27.3% severe anemia 18.2% burning micturation 15.2%, Ante partum Haemorrhage (APH) and convulsion 12.1%. Out of 33 respondent who were faced complication during their pregnancy 23 (70%) sought treatment and 10 (30%) were not taken any treatment. 12 (52.2%) respondents seek treatment in govt. hospital and 11 (47.8%) in private clinic. Treatment given by the doctor were 19 (82.6%) and nurse/paramedic 04 (17.4%). 82.6% were treated by tablet/capsule and 17.4% were treated by saline/injections.

In another study showed that most common pattern of care seeking was bringing medicine and/or treatment to the home (67.7%)[6]. Women and their families tended to seek this type of treatment for post-partum/cramping pain (90.9%), bleeding (70.2%), symptoms of infection (71.4%) and prolonged /obstructed labour (77.3%). Almost half of the women reported taking tablets/capsules to address the complication (44.5%), while few women reported receiving an injection to speed up labour (2.1%). Few women reported that a provider was brought to the home to treat the complication (19.9%).

In Uttar Pradesh, India they found seven complications during pregnancy period. Those were night blindness (14.5%), blurred vision (28.5%), convulsions (16.8%), swelling (24.7%), excessive fatigue (45.2%), anaemia (31.1%) and vaginal bleeding (4.6%). About 90% were visited by health worker and few went to clinic [7].

In a study in Nigeriathey observed some of the serious pregnancy-related risks were differently perceived by Nigerian women. Many of the women would not perceive these risks as being too serious as they were regarded as normal and to be expected during pregnancy and they didn't seek any kind of health facility [8].

In this study 13.4% mother faced complication during their last delivery period and complication were obstructed labour 33.3%, prolong labour 26.7% eclampsia 26.7%, abnormal position of foetus 13.4%. Among 15(13.4%) respondents who have faced complications during their delivery period all sought treatment. 66.7% respondents seek treatment in govt. hospital and 20% in private clinic and 13.3% at home. 80% were treated by doctor, 13.3% by nurse/paramedics and 6.7% by TBA. During seeking treatment 53.3% did not face any problem, 26.7% face problem in expenditure and 20% delay of stating treatment.

One study results demonstrated a strong preference for private facilities for reasons that included availability of doctors, better equipment and facilities. They said that, women's perception of the quality of care available at the facility significantly influenced their choice [9]. Another study reported that in the northern Pakistan, the gender of health care providers, quality of service provided at the health facility and the associated financial cost were important factors in considering whom to consult [10].

Another study which was conducted in Pakistan said that, usage of public facilities was lower in rural areas due to restricted hours of operation, non-availability of drugs, distant locations and lack of female providers [11].

Other report mentioned in their study that, women generally are looked after and follow decisions of the husbandin their community [12]. Similar patterns of care seeking in pregnancy have been shown in several studies [13, 14].

CONCLUSION

From our study we can conclude that, all the respondents who developed complications during delivery and after delivery sought health care. Among the respondents who did not receive antenatal care developed more complications during pregnancy period and delivery period which is statistically. Care seeking behavior is closely related with pregnancy complication. Timely and properly seeking treatment could help to reduce maternal mortality and morbidity and ultimately helps to reach MDG Goal.

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