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

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Abstract

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 112 rural 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 improperly 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 worldwide, 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              | 112 rural 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:

| 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 antenatal 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 antenatal 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 complications among the respondents

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

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)     |
| Place of Seeking Treatment  | Govt. Hospital        | 12 (52.2)     | 10 (66.7)    |
|                            | Private Clinic        | 11 (47.8)     | 03 (20.0)    |
|                            | Satellite Clinic      | 00 (0.0)      | 00 (0.0)     |
|                            | Pharmacy              | 00 (0.0)      | 00 (0.0)     |
|                            | At Home               | 00 (0.0)      | 02 (13.3)    |
| Care/Treatment Provided by | Doctor                | 19 (82.6)     | 12 (80.0)    |
|                            | Nurse/Paramedics      | 04 (17.4)     | 01 (6.7)     |
|                            | TBA                   | 00 (0.0)      | 02 (13.3)    |
|                            | FWV                   | 00 (0.0)      | 00 (0.0)     |
| Types of Treatment Received| Tablets/Capsules      | 19 (82.6)     | 01 (6.7)     |
|                            | Saline/Injections     | 04 (17.4)     | 14 (93.3)    |
| Barriers Faced While Seeking Treatment | No Barrier Faced | 15 (65.3) | 08 (53.3) |
|                            | Expenditure           | 07 (30.4)     | 04 (16.7)    |
|                            | Delay in Starting Treatment | 01 (4.3) | 03 (20.0) |

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 Received n (%) | Not Received n (%) | Total n | χ² Test Significance |
|--------------------------|--------------------|--------------------|---------|---------------------|
| Pregnancy Complication   |                    |                    |         |                     |
| Present                  | 13 (18.3)          | 20 (48.8)          | 33      | P = 0.001           |
| Absent                   | 58 (81.7)          | 21 (51.2)          | 79      |                     |
| Delivery Complication    |                    |                    |         |                     |
| Present                  | 06 (8.4)           | 09 (21.9)          | 15      | P = 0.083           |
| Absent                   | 65 (91.6)          | 32 (78.1)          | 97      |                     |
| Post-Delivery Complication|                  |                    |         |                     |
| Present                  | 07 (9.9)           | 07 (17.1)          | 14      | P = 0.415           |
| 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 behavior were 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 n (%)  | Unhealthy Behavior n (%) |
| Pregnancy Complication    | 23 (69.7)               | 10 (30.3)        |
| (n = 33)                  |                         |                  |
| Delivery Complication     | 13 (86.7)               | 02 (13.3)        |
| (n = 15)                  |                         |                  |
| Post-Delivery Complication| 10 (71.4)               | 04 (28.6)        |
| (n = 14)                  |                         |                  |

**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 postnatal 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 32.4%, severe anemia 18.2%, 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 Nigeria they 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 husband in 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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