

# Birth Preparedness and Complication Readiness (BPCR) Among Women of Child Bearing Age

Saira Khalid, Nosheen Rehman and Faiqa Zarreen

## ABSTRACT

**Objective:** To determine the status of birth preparedness and complication readiness in relation to educational status of women of child bearing age group.

**Study Design:** Cross-sectional study

**Place and Duration of Study:** This study was conducted at the Indus Hospital (MSSH), Lahore from 1<sup>st</sup> January 2017 to 30<sup>th</sup> June 2017.

**Materials and Methods:** This study comprised 384 delivered women. The socio-demographic characteristics, obstetric history, awareness of obstetric complication danger signs and practice of BPCR, and personal and social factors influencing the practice of BPCR were recorded.

**Results:** Most of the women were in age group 26-35 years i.e. 211 (54.9%), education till matric had 201 (52.4%) women, housewives 338 (88%) and monthly income more than 15,000 per month i.e. 158 (41.2%) and 132 (34.4%) mothers were well prepared with mean BPCR score is  $6.94 \pm 1.99$ .

**Conclusion:** Most of the women in the study were not prepared for birth and its complications. However, highly educated women have better BP/CR score than less educated women.

**Key Words:** Birth preparedness and complication readiness, Women, Education, Employment, Maternal mortality, Antenatal

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## INTRODUCTION

Pregnancy is a normal, healthy, enjoyable event in women of childbearing age, yet it carries the risk of morbidity and mortality for many women.<sup>1</sup> Globally maternal mortality is one of the greatest challenges in the field of health and development. In the developing world like in Pakistan, maternal mortality ratio is high; 276 per 100,000 live births, with a mother dying as a result of giving birth every 20 minutes.<sup>1,2</sup> The major causes of death in pregnancy are hemorrhage, hypertensive disorders, sepsis, obstructed labour, anemia and unsafe abortions.<sup>1</sup> Pakistan is also struggling to bring about a decline in statistics regarding maternal mortality by implementation of millennium goals MGD4 and MGD5.<sup>3,4</sup> Despite this, to achieve MGD4 and MGD5, the community needs to focus its resources on effective strategies to reduce maternal deaths by following the concept of birth preparedness and complication readiness (BPCR).<sup>5</sup> Antenatal care is defined as having one or more visits to a skilled person during pregnancy. It comprises routine

follow-up of pregnant women from screening to intensive life support during pregnancy and up to delivery.<sup>6</sup> Antenatal visits raise awareness about the need of care at delivery and create familiarity of women and their families to health facilities, so as to enable them to seek care in times of emergency. Antenatal care increases the use of safe delivery by promoting the use of health professionals and creating awareness about birth preparedness.<sup>7</sup> WHO and UNICEF models now include antenatal component of BPCR as a part of antenatal education in clinical settings.<sup>6</sup> Birth preparedness and complication readiness is an intervention which addresses these delays by encouraging women and their families to plan for birth. It also allows identification of trained birth attendants through antenatal visits.<sup>4,6</sup>

Kushwah and Dubey<sup>6</sup> showed that high BP index of 47.5%. BP index was positively associated with primipara (59.3%), poverty (50.9%), educational status of mother and business group. It was negatively associated with antenatal care (24.1%), knowledge of danger signs (18.6%) and transport facilities.

## MATERIALS AND METHODS

This cross-sectional study was conducted at Indus Hospital (MSSH), Lahore from 1<sup>st</sup> January 2017 to 30<sup>th</sup> June 2017 and comprised 384 delivered women. Women who have delivered a baby within one month were included. Those women having more than 2

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children were excluded. The questionnaire was designed to measure socio demographic characteristics, obstetric history, awareness of obstetric complication danger signs and practice of BPCR, and personal and social factors influencing the practice of BPCR. The woman was considered as prepared for birth and its complications if she had made arrangements for at least three of the BPCR component practices (identified place of delivery, identified skilled health care provider, saved money, identified transport ahead of emergency, and identified blood donor) by translating BPCR practices into a single outcome variable. Data was entered and analyzed in SPSS-20.

**RESULTS**

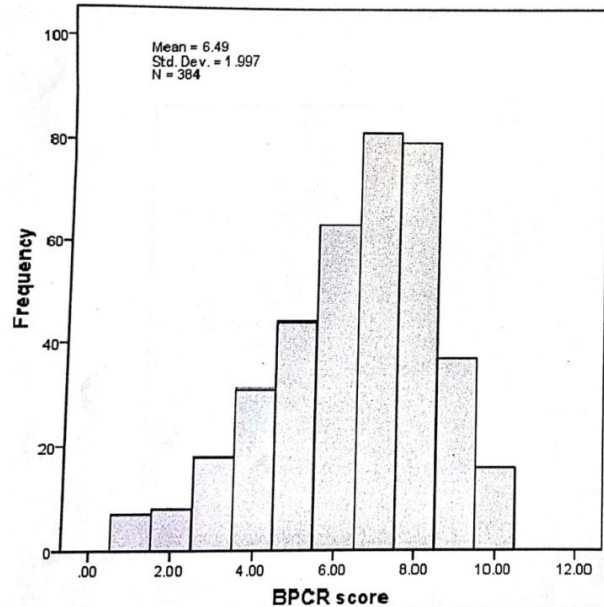
One hundred and thirty eight (35.9%) women belonged to age 15-25 years, 211 (54.9%) women between 26-35 years and 35 (9.2%) women between 36-45 years of age. There were 338 (88%) women were housewives and 46 (12%) were working women.

**Table No.1: Demographic information of the women**

Variable	No.	%
<b>Age (years)</b>		
15 – 25	138	35.9
26 – 35	211	54.9
36 – 45	35	9.2
<b>Employment status</b>		
Housewives	338	88.0
Working women	46	12.0
<b>Educational status</b>		
Matric	201	52.4
Intermediate	72	18.7
Graduation	68	17.7
Post-graduation	43	11.2
<b>BPCR category</b>		
Well prepared	132	34.4
Not prepared	252	65.6
<b>Monthly Income (rupees)</b>		
<5000	31	8.0
5000 – 10000	86	22.4
11000 – 15000	109	28.4
>15000	158	41.2
<b>Place of delivery</b>		
Yes	315	82.0
No	69	18.0
<b>Arrangement of transport</b>		
Yes	178	46.4
No	206	53.6

Two hundred and one (52.4%) women have matric level, 72 (18.7%) women have intermediate level, 68 (17.7%) were graduate and 43 (11.2%) have done their post-graduation. There were 132 (34.4%) women have well prepared BPCR category and 252 (65.6%) have not prepared BPCR category. Regarding monthly income, 31 (8%) women have <5000 rupees income, 86

(22.4%) between 5000-10000 rupees income, 109 (28.4%) between 11000-15000 rupees income and 158 (41.2%) have >15000 rupees income. Three hundred and fifteen (82%) have identified their place of delivery while 69 (18%) have not identified. One hundred and seventy eight (46.4%) have arrangement of transport while 206 (53.6%) have not (Table 1). Birth preparedness and complication readiness score showing mean of 6.48±1.99 (Fig. 1).



**Figure No. 1: Birth preparedness and complication readiness score**

**DISCUSSION**

In the present study the results showed that most of the women belonged to age group 26-35 years (55.9%). The results of this study supported by study carried out in South Eastern Nigeria<sup>8</sup> which showed that 49% of women belonged to 20-39 years and rural Uganda. Pakistan, South-Western Nigeria in which average age between 20-40 years respectively. The current study showed that 88% of women were housewives and 12% women were working. This factor affecting antenatal care in Karachi supported our results which showed 85% women to be housewives.<sup>2</sup>

The results of this study showed that 52.4% women had education upto level of secondary education which is supported by researchers carried out in South-Western Nigeria and South-Eastern Nigeria which showed that 60% of women and 54.8% of women have secondary education respectively.<sup>9,10</sup> The present study showed that 34.28% were well prepared for delivery. Onayade et al<sup>8</sup> supported our results which showed that 35% women in Uganda and 28.3% in Nigeria were prepared for giving birth.

Choice of place of delivery was made before hand by 82% of women while 18% had not chosen any place of delivery before. These are favored by a study done in

Nigeria which showed that 87.5% of women had decided place of delivery.<sup>9</sup>

Transport arrangement was present to 46.4% of women while study showed that 53.6% had made no arrangements for transport. These were favoured by research in Koupila District which reported 46.1% women had transportation arrangement.<sup>11</sup> However, a study was done in Rural Uganda, Ethiopia and a community survey did not favour our results which showed 61%, 77% and 83% women to have had arrangement for transport.<sup>12-14</sup>

It was seen that 60.9% of women in our study had saved money for delivery, 39.1% women had no savings which comparable to study done in Nigeria reported 64.8% women had saved money.<sup>8</sup>

87.5% women had undergone antenatal checkups more than 3 times while 12.5% women did not have antenatal checkups. Research on factor affecting antenatal care in Karachi, community survey and a study made in Nigeria showed 51%, 64% and 71% women visits antenatal clinics.<sup>2,9</sup>

## CONCLUSION

Most of the women in the study were not prepared for birth and its complications. However, highly educated women have better BP/CR score than less educated women. Those who were prepared identified that the need of tertiary care hospital, timely management of transport to place of delivery and saving money for delivery, regular antenatal check-ups are important aspects of safe delivery. Doctor identification for the proper management of delivery plays an important role in preventing complications.

### Author's Contribution:

Concept & Design of Study:	Saira Khalid
Drafting:	Nosheen Rehman
Data Analysis:	Faiqa Zarreen
Revisiting Critically:	Saira Khalid, Nosheen Rehman
Final Approval of version:	Saira Khalid

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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