

Factors Related to the Utilization of Emergency Obstetric Care (EOC) Service: A Study of EOC Service Users in Baglung Hospital

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Abstract

Introduction	Nepal has one of the highest maternal mortality rates in the world. His Majesty's Government of Nepal (HMG/N) has focused its attention to reduce maternal mortality through providing emergency obstetric care (EOC) to women who need access to quality midwifery and obstetric care during life-threatening emergencies. Despite the government's efforts, the proportion of women with major obstetric complications treated at EOC facility (met need for EOC) is about 5%, which should not be less than 100%.
Objectives	The general objective of the study were to estimate the time taken to utilizing EOC services and to describe the factors associated with the utilization of EOC services at Baglung Hospital.
Methods	This was a descriptive study of explorative nature. All the EOC service users (mothers with major obstetric complications treated at Baglung Hospital, n=103) living within 6 hours of walking distance from the Baglung Hospital were interviewed using interview guideline. Focus group discussion with mothers' group, Female Community Health Volunteers (FCHV) was conducted to explore the community perspective in the utilization of EOC service.
Results	Most of the EOC service users were between the age of 20 and 29 years. Majorities of them were Brahmin/Chhettri from agricultural occupation with primary education. Only about 15% of the mothers were able to recall five major obstetric complications (good knowledge). Husband had a significant role in decision-making (alone made decision in 52.4% of the cases) during emergency obstetrics. Traditional healers were the first contact person (in 51.5% cases) during emergency obstetrics. The only access to hospital was by walking plus or minus other means. In most of the cases (63.1%), health workers were not present at hospital upon the arrival of obstetric patients. These findings were corroborated with the findings of Focus Group Discussion (FGD).
Conclusion	The study revealed multiple factors related to the utilization of EOC service. The knowledge about danger signs of obstetric complications, husband role in family decision-making and their educational status has influenced the decision to seek care. But the reaching time for those who opted bus/taxi was not significantly different from walking due to the unavailability of transportation at need. The availability of the health workers influenced the emergency obstetric care services. The value system, norms, beliefs, and tradition were also the major factors related to the utilization of EOC service at hospital.
Key words	Emergency Obstetric Care (EOC), Utilization, Baglung Hospital

Introduction

from causes related to pregnancy and childbirth in the developing world.²

Nepal has one of the highest maternal mortality rates in the world. Even at the most conservative estimate, 12 women die every day (over 4,500 every year) as a consequence of pregnancy related complications.^{2,4} Most of these deaths occur at home (67.4%) due to a number of factors that can be prevented with skilled and timely attendance during pregnancy and delivery.

The maternal mortality cannot be substantially reduced unless women have access to emergency obstetric care (EOC) with skilled attendance.⁵ So, His Majesty's Government of Nepal (HMG/N) is committed to provide Emergency Obstetric Care (EOC) services to the mothers in need. Despite the government's commitment, the met need for of EOC (mothers with obstetric complication treated in EOC facility) is 5%, which should not be less than 100%.

Only about 40% of pregnant mother make one ANC visit, against recommended minimum of four visits, 9% of the deliveries take place in health facilities and similarly about 13% of women receive care during post-natal period. This suggests that despite an increase in the number of health facilities offering maternity services, use of health facilities is still minimal among most Nepalese women.^{14,15}

Monitoring of EOC indicators in Baglung Hospital shows that the met need for EOC is 6 %, which is below the recommended level and even lower than that of other districts where comprehensive essential obstetric care (CEOC) service is available. The year-wise trend analysis also shows that the met need for EOC was decreased from 8% in 2001 to 6% in 2002.¹⁶

This study aims to estimate the time taken for the utilization of EOC services and to describe the factors related to the utilization of EOC services at Baglung Hospital. The findings of the study will be useful for designing effective interventions to address emergency obstetric problems.

Methods

This was a descriptive study of explorative nature. The study was carried out in Baglung Hospital among the service users of Emergency Obstetric Care (EOC). Mothers who have used the EOC service (mothers with major obstetric complications admitted at Baglung Hospital) in the year 2002 were the study population. All the EOC service users from within six-hour of walking distance were sampled (sample size =103) for the study. Data collection was carried out during February 4-28, 2003. Interview guideline was used

for data collection from EOC service. Likewise, FGD guideline was instituted to explore community perception, knowledge, values and norms regarding EOC service utilization. Four FGD were conducted with Female Community Health Volunteers (FCHVs) and mothers' group. Informed verbal consent was obtained District Health Office (DHO) and mothers. The participation in the study was completely voluntary. The data was entered in a database and analyzed by using EPI Info 2002 for windows. Summary output tables of percentage distribution and means were calculated.

Results

General Characteristics

Most of the mothers were in their twenties, with 63.1% between the ages 20 to 24, and an additional 29% between 25 to 29 years. By ethnicity, the largest percentage (59.2%) was Brahmin and Chhetri followed by Gurung and Magar (18.4%), and KDS (13.6%).

Most of the mothers (58.3%) were found to have agriculture as their main occupation while only a few (6.8%) were from service category. About 13% of the mothers were engaged in labour and 22.3% were engaged in other occupation. Similarly, most of the husbands (41.7%) were found to have agriculture as their main occupation followed by service holder (23.2%). Nearly 17% were engaged in labour while 18.4% were engaged in other occupation.

Estimation of Time for EOC Service Utilization

It was found that the decision time to seek care was 11.35 hours; reaching time was 7.48 hours and receiving time was 1.06 hours. The total time for EOC service utilization was 19.89 hours.

Table I: Average time to decide to seek care, to reach hospital, and to receive care (n=103)

Time required for	Average time (in hours)	S.D
Seeking care	11.35	8.50
Reaching care	7.48	6.80
Receiving care	1.06	0.96
Total	19.89	

Only small proportion of women (14.6%) were able make decision to seek care between 0 to 2 hours. Among those who decided to seek care, only 31.1% of the mothers reached hospital between 0 to 2 hours. But most of the mothers (82.5%) were treated between 0 to 2 hours upon the arrival to hospital.

Table II: Average time to decide to seek care, to reach hospital, and to receive care

Time	Seeking care	Reaching care	Receiving care
0-2 Hours	15(14.6)	32(31.1)	85(82.5)
3-4 Hours	15(14.6)	10(9.7)	18(17.5)
5- 23 Hours	61(59.2)	59(57.3)	0
24-48 hours	12(17.4)	2(1.9)	0
Total	103(100)	103(100)	103(100)

Figures in the parenthesis indicates percent

Decision to Seek Care

The majority of mothers (42.7%) had primary education, followed by secondary education (26.2%). Likewise, majority of husbands (35.0%) had primary education whereas 28.2% had secondary education.

The decision time was 13.34 hours in those cases where mothers had primary education while it was 11.57 hours in those cases where mothers had SCL plus education. The decision time was significantly higher (20.75 hours) in those cases where the husbands were illiterate.

Table III: Distribution of mothers and their husband by educational level (n=103)

Level of education	Number	Mean decision time (in hrs.)	S.D
Mother			
Illiterate	23(22.3)	9.37	6.69
Primary education	44(42.7)	13.34	8.31
Secondary education	27(26.2)	9.74	7.21
SLC plus	9(8.7)	11.57	14.68
Husband			
Illiterate	19(18.4)	20.75	10.29
Primary education	36(35.0)	12.43	6.01
Secondary education	29(28.2)	8.08	6.33
SLC plus	19(18.4)	4.92	3.73
Total	103(100)	11.35	8.50

Figures in the parenthesis indicates percent

The majority of mothers (50.5%) were not able to recall any of the major obstetric complications (poor knowledge). Nearly 15% of the mothers were able to recall five major obstetric complications (good knowledge) and 34.0% were able to recall some of the major five obstetric complications (some knowledge). The decision time was significantly higher (9.34 hours) for those mothers with poor knowledge of obstetric complications.

Table IV: Distribution of mothers by level of knowledge about obstetric complications

Level of knowledge	Number	Mean decision time (in hrs.)	S.D
Good knowledge	16(15.5)	7.25	5.39
Some knowledge	35(34.0)	9.60	7.46
Poor knowledge	52(50.5)	13.80	9.34
Total	103(100)	11.35	8.50

Figures in the parenthesis indicates percent

In the majority of cases (52.4%), the "husband alone" made decision while only in few cases (29.1%) mothers were involved in decision-making. The decision time was significantly lower when mothers themselves were involved in the decision making process.

Table V: Distribution of mothers by the involvement in decision-making

Decision maker	Number	Mean decision time (in hrs.)	S.D
Husband alone	54(52.4)	15.15	2.53
Mother alone or jointly	30(29.1)	3.4	7.99
Other	19(18.5)	13.07	7.76
Total	103 (100)	11.35	8.50

Figures in the parenthesis indicates percent

Reaching Health Facility

The most common mode of transport (50.5%) was walking plus or minus some other means followed by bus/taxi (38.8%) and ambulance (10.7%). It took 4.80 hours to reach hospital by means of ambulance, 8.25 hours by means of bus/taxi. Likewise, it took 9.28 hours to reach hospital by walking and 4.52 hours by other means. The reaching time was not much different for those who walked to hospital and opted bus/taxi.

Table VI: Distribution of mothers by mode of transport

Mode of transport	Number	Reaching time (in hrs.)	S.D
Ambulance	11 (10.7)	4.8	14.33
Bus/taxi	40 (38.8)	8.25	5.10
Walking	32 (31.1)	9.28	5.43
Others	20 (19.4)	4.52	4.36
Total	103 (100)	7.48	6.80

Figures in the parenthesis indicates percent

Receiving Care

In most of the cases (63.1%), health workers were not present at hospital. The average time taken to receive care at hospital was 0.70 hours when the health workers were present and 1.63 hours when they were not present. The care receiving time was highly significant with the availability of health workers at hospital.

Table VII: Distribution of mothers by availability of health workers

Availability of HW	Number	Receiving time (in hours)	S.D
Available	38 (36.9)	0.70	0.80
Unavailable	65 (63.1)	1.63	0.93
Total	103 (100)	1.06	0.96

Figures in the parenthesis indicates percent

Focus Group Discussion

Many participants were of the view that women during obstetric problems do not normally call a trained helper, but a senior maternity member in the family and neighborhood provide assistance to them. The first people called for an obstetric complication is still a traditional healer who performs rituals, which make the conditions worse. They believed in "*pani phukera khane and mansaune*" (A traditional practice of giving water after doing so called holy spell).

The majority of the participants strongly agreed that women lack knowledge about the danger signs of complications and the availability of service. Some of them expressed the view that only women who are engaged in mothers' groups are aware of the danger signs of complications.

Even when the family decides to seek care at Baglung Hospital, the concern about cost severely affects their arrival at the hospital. Most of the stated that lack of transportation was the main barriers to visit hospital. The unavailability of transport at night impeded women from utilizing the EOC services at Baglung Hospital.

Regarding the issues related to hospital, all of the participants in Lahare Pipal were of the view that blood transfusion is not available when needed. In some instances, health workers' behavior towards the clients was not conducive which was expressed as "*Sari lagako lai matra herchhan, lungi lagako lai hardainan*" (gives priority to the women from elite group). The participants also pointed out that *Laj* (shyness) was also a barrier for the utilization of service to younger mothers in their first pregnancy.

Discussions and Conclusions

The overwhelming majority of mothers (50.5%) were unaware about major obstetric complications. Only 15.5% of them had good knowledge and 34% had some knowledge about major obstetric complications. The decision time to seek care was higher (13.80 hours) for those mothers with poor knowledge of obstetric complications. Due to the lack of knowledge about pregnancy and warning signs of the life threatening complications and other factors, families still continued to seek care from the traditional healers such as the Dhami Jhakri and Guruwa, thus causing delay in seeking professional care at first level. Thus the program should focus on improving knowledge on major obstetric complications through Information Education and Communication (IEC).

Husbands were found to have a significant role (52.4%) in decision to seek care. Only 29.1% of mothers were involved singly or jointly in the decision making process. The decision time was significantly lower when mothers were involved themselves in decision-making. The patriarchal value system gives liberty to husband and provides

submissive role to wife in all family matters. So, not only in decision, but also in other family and social matters, husband has significant role. Hence, the program should involve husbands in EOC service provision.

The common mode of transport was walking plus or minus other means (50.5%) followed by bus/taxi (38.8%). Only a few respondents (10.7%) used ambulance to go hospital. The reaching time to hospital was not found significantly different when the mode of transport was walking and Bus/taxi. The arrangement of transport and cost might have influenced the reaching time. Again, those who had traveled through bus/taxi might have walked a considerable long distance before reaching the road head. The rough road and unavailability of transport means further aggravated the delay in reaching hospital. So, a functional transport system should be ensured for obstetric emergencies through community mobilization.

In most of the cases (63.1%), health workers were not present upon the arrival of emergency obstetric cases. The availability of health workers (around-the-clock) should be ensured for the emergency management of obstetric complications.

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