

# Status of Maternity Services in Karnali Academy of Health Sciences

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## ABSTRACT

**Introduction:** Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections for the mother and baby. Health facility-based delivery is considered a critical strategy to improve maternal health. This study aimed to identify the status of maternity service in Karnali Academy of Health Science (KAHS), Jumla.

**Methods:** A hospital based retrospective study was done in maternity ward of KAHS teaching hospital, Jumla. Total 855 women admitted in maternity ward with obstetrical problem and labour pain were included in the study from July 16, 2017 to July 16, 2018. Sampling technique was census and cases were selected from record section. Data was analyzed by using descriptive statistics.

**Results:** There were total 855 obstetrical cases with labour pain and other obstetrical conditions. Among them 673 (78.71%) cases were in labour pain, 543 (80.68%) had spontaneous vaginal delivery, 104 (15.45%) had cesarean section. Among the 678 neonates; 650 (95.87%) were live born baby, 28 (4.12%) were still birth, 13 (1.91%) died in neonatal period. Furthermore, among 855 obstetric cases 109 (12.74%) had obstetrical complications, and 116 (13.56%) received specific obstetrical management for complications.

**Conclusions:** Though there was no any maternal death in the KAHS nearly 2% neonatal death was found. Therefore, special management facility should be improved for the survival of neonates in future.

**Keywords:** maternal service; obstetrical complications; obstetrical management.

## INTRODUCTION

Maternal health is a national health priority and improving maternal health is a major focus of the current national development plan in Nepal.<sup>1</sup> Maternal health is the health status of women during pregnancy, childbirth, and the postpartum period, which incorporates the health care dimension of family planning, preconception, and prenatal and postnatal care to reduce maternal morbidity and mortality.<sup>2</sup>

Significant progresses have been made globally in maternal and neonatal health care, and both maternal and neonatal mortality rates have dropped in recent decades.<sup>3</sup> The health care that a woman receives during pregnancy, at the time of delivery, and soon after delivery is important for

the survival and well-being of both the mother and child.<sup>4</sup> Labor and delivery process is an exciting, anxiety-provoking, but rewarding time for a woman and her family after successful delivery of a newborn.

The intrapartum period is the time where mothers expect more care. Taking care of a mother during delivery with no side effects is the task of a professional midwife who is trained with skills to take the responsibility of caring for mothers and babies.<sup>5</sup> In a country like Nepal, the chances of a safe delivery are greater when the birth takes place in a health facility than at home, and increasing institutional delivery is important to reduce deaths due to pregnancy complications.<sup>6</sup>

Therefore the researcher is interested to identify the status of maternity services of maternity ward in Karnali Academy of Health Sciences, teaching hospital, Jumla.

## METHODS

This is a hospital based retrospective study was done in maternity ward of Karnali Academy of Health Sciences teaching hospital, Jumla. A total 855 women admitted in maternity ward with obstetrical problem and labour pain were included in the study from July 16, 2017 to July 16, 2018. Sampling technique was census for the study who was admitted for obstetrical problem and condition. Cases were selected from the record of the maternity ward and record section of KAHS. Ethical approval was taken from the ethical review committee of KAHS for ethical clearance. The data was collected by using structured tool. All the information was analyzed by using descriptive statistics.

## RESULTS

<b>Table 1.</b> Obstetrical Characteristics of Women with Labour Pain (n=673)		
Obstetrical Characteristics	Number	Percentage
Age of Women in Year		
< 20	180	26.74
20 to 35	474	70.43
>35	19	2.82
Parity of women		
Primi	289	42.94
Multi	272	40.42
Grand multi	112	16.64
Week of Gestation		
Preterm	47	6.98
Term	573	85.14
Post term	58	8.61

Among total obstetrical cases 673 women were in labour pain. Among women with labour pain 180 (26.74%) were below 20 years, 474 (70.43%) were 20 to 35 years and 19 (2.82%) were above 35 years old women. In regard to parity; 289 (42.94%) were primiparous women, 272 (40.42%) were multi parous women and 112 (16.64%) were grand multi parous women. Similarly about

week of gestation; 47(6.98%) were preterm, 573 (85.14%) were term, and 58(8.61%) were post term pregnancy

<b>Table 2.</b> Type of Delivery (n=673)		
Type of delivery	Number	Percentage
Spontaneous Vaginal Delivery	543	80.68
Cesarean Section	104	15.45
Vaginal Breech delivery	19	2.82
Instrumental delivery	13	1.93

Among total 673 deliveries; 543 (80.86%) had spontaneous vaginal delivery, 104 (15.45%) had cesarean section, 19 (2.82%) had vaginal breech delivery, 13 (1.93%) had instrumental delivery.

<b>Table 3.</b> Neonatal outcome (n=678)		
Neonatal outcome	Number	Percentage
Live born baby	650	95.87
Still birth	28	4.12
Neonatal Death	13	1.91
Sex of Neonates (n= 650)		
Male	394	60.62
Female	256	39.38
Weight of Neonates( n=650)		
Normal Birth weight	586	90.15
Low birth weight	64	9.85

Among the 678 neonates 650 (95.87%) were live born baby, 28 (4.12%) were still birth, 13 (1.91%) died in neonatal period. Regarding the sex among 650 live born baby; 394 (60.62%) were male and 256 (39.38%) were female. About the birth weight; 586 (90.15%) had normal and 64 (9.85%) had low birth weight babies.

<b>Table 4.</b> Obstetrical complications (n=109)		
Obstetrical complications	Number	Percentage
Abortion complications	52	47.70
Prolonged labour	19	17.43
Molar Pregnancy	10	9.17
Retained placenta	9	8.26
PPH	4	3.67
Pre-eclampsia/Eclampsia	4	3.67
Ectopic pregnancy	4	3.67
Ruptured Uterus	3	2.75
Antepartum Hemorrhage	2	1.83
Puerperal sepsis	2	1.83

The obstetrical complications were 109(12.74%) among 855 obstetric cases in the maternity ward. Among 109 obstetrical complicated cases; 52(47.70%) had abortion complications like incomplete or complete abortion, 19 (17.43%) had prolonged labour, 10 (9.17%) had molar pregnancy, 9(8.26%) had retained placenta, 4 (3.67%) had postpartum hemorrhage, 4 (3.67%) had pre-eclampsia/eclampsia, 4 (3.67%) had ectopic pregnancy, 3 (2.75%) had ruptured uterus, 2 (1.83%) had antepartum hemorrhage and, 2 (1.83%) had puerperal sepsis.

Table 5. Specific Obstetrical Management (n=116)		
Specific Obstetrical Management	Number	Percentage
Manual Vacuum Aspiration	52	44.82
Blood transfused to women	29	25
Surgical Evacuation for molar pregnancy	10	8.62
Anti-D to Rh negative women	10	8.62
Manual Removal of Placenta	8	6.89
Laparotomy	4	3.44
Obstetrical Hysterectomy	3	2.58

116 (13.56%) got specific obstetrical management among 855 obstetrical cases. Among 116 cases; manual vacuum aspiration to 52 (44.82%), blood transfused to 29 (25%), surgical evacuation for molar pregnancy to 10 (8.62%), anti-D for RH negative to 10 (8.62%), manual removal of placenta to 8 (6.89%), laparotomy to 4 (3.44%), and obstetrical hysterectomy to 3 (2.58%) cases.

## DISCUSSION

There were 855 obstetrical cases with labour pain and other obstetrical conditions. Among them 673 (78.71%) cases were in labour pain. Among women with labour pain; majority of women were 20 to 35 years that is 474 (70.43%) in which contrast finding was found on study done in England that showed 58% were between the ages of 25 and 34 years.<sup>7</sup> In regard to parity; 289 (42.94%) were primiparous women, 272 (40.42%)

were multi parous women and 112 (16.64%) were grand multi parous women. And about week of gestation; most of them 573 (85.14%) were with term pregnancy. Among total 673 deliveries; 543 (80.68%) had spontaneous vaginal delivery, 104 (15.45%) had cesarean section, 13 (1.92%) had instrumental delivery. In contrast most of the women (61%) had spontaneous vaginal births, 13% had instrumental delivery (vacuum/forceps), and 25% of women had caesarean delivery in study done in England.<sup>7</sup> Among the 678 neonates; 650 (96.58%) had live birth, 28 (4.12%) still birth, and 13 (1.92%) died in neonatal period. Regarding the sex among 650 live born baby; 394 (60.62%) were male and 258 (39.38%) were female neonates. About the birth weight; 586 (90.15%) had normal and 64 (9.85%) had low birth weight babies.

In this study obstetrical complications were 109(12.74%) among 855 obstetric cases in the maternity ward. Among 109 obstetrical complicated cases; 52 (47.70%) had abortion complications 19 (17.43%) had prolonged labour, 10 (9.17%) had molar pregnancy, 9(8.26%) had retained placenta, 4 (3.67%) had postpartum hemorrhage. A study done in South Sudan (2018) showed the most common obstetric complications were complicated abortions (45.7%), followed by prolonged obstructed labour (23.2%) and haemorrhage (16.5%).<sup>8</sup> Similarly, in this study 4 (3.67%) had pre-eclampsia/eclampsia which is nearly similar to study done in tertiary hospital of Kathmandu (2013) that is 4.35%.<sup>9</sup> Likewise, 4 (3.67%) had ectopic pregnancy, 3 (2.75%) had ruptured uterus, 2 (1.83%) had antepartum hemorrhage and, 2 (1.83%) had puerperal sepsis. There was no any maternal death in this institution though according to Nepal Demographic Health Survey (NDHS, 2016) the maternal mortality ratio (MMR) for Nepal is 239 deaths per 100,000 live births.<sup>10</sup> Among 855 obstetrical cases 116 (13.56%) received specific obstetrical management. Among 116 cases; manual vacuum aspiration to 52 (44.82%), blood transfused to 29 (25%), surgical evacuation for molar pregnancy to 10 (8.62%), anti-D for RH negative to 10 (8.62%), manual removal of placenta to 8 (6.89%), laparotomy to 4 (3.44%), obstetrical hysterectomy to 3 (2.58%) cases.

## CONCLUSIONS

Among the total obstetrical cases majority of women were in labour pain and only very few women had obstetrical complications. Though there was no any maternal death in this institution less than one fourth neonatal death was found. Therefore, special management facility should be improved for the survival of neonates in future.

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**Conflict of Interest: None**

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