Knowledge, Attitude and Practice of Mothers Towards Newborn Care in Jugal Hospital, Harari Regional State, Ethiopia

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ABSTRACT

Introduction: Globally every year about four million neonates die in the first 28 days of life and similar number of babies is stillborn. Most neonatal deaths (99%) occur in low income and middle-income countries. The global neonatal mortality rate is 18, in Africa it is 26.7 and in Ethiopia, it is 30 per 1000 live births in 2019. In Ethiopia, neonatal mortality remains high and accounts for about half of the under-five mortality. There are relatively fewer studies regarding knowledge, attitude and practice of mothers towards newborn care in Ethiopia. However, no such study has been done in Harari region. So, this study was planned to assess the knowledge, attitude and practice of newborn care among postnatal mothers in Harari regional state, Ethiopia.

Methods: An institutional based cross-sectional study was conducted among postnatal mothers who were randomly selected from Jugal hospital. A systematic random sampling method was followed. A pre-tested questionnaire was used. Data was entered, cleaned and analysed using SPSS version 20.

Results: A total of 414 postnatal mothers were interviewed with a response rate of 98.1%, among them 74% had good knowledge, 77.14% had positive attitude and 65.45% had good practice of newborn care.

Conclusions: This study indicated that nearly half and above respondents had good knowledge, positive attitude and good practice of newborn care, but a substantial number of postpartum mothers had poor knowledge and practice on newborn care in Harari Region. Therefore, provision of information, education and communication and regular training and workshops about newborn care should be done to health professional working at MCH unit in order to increase the awareness of mothers through health education.

Key words: Attitude; Knowledge; Newborn Care; Postnatal mothers; Practice

INTRODUCTION

Globally every year about four million neonates die in the first four weeks of life. A similar number of babies are stillborn. Most neonatal deaths (99%) occur in low income and middle-income countries.[1] Each year in Africa, 30 million women become pregnant and around 18 million give birth at home without skilled care. Each day, 3,100 newborns die and another 2,400 are stillborn. Also 9,600 children die after their first month of life and before their fifth birthday each day.[2]

In Ethiopia, 2016 Ethiopian Demographic and Health Survey results showed that neonatal, infant and under-5 mortality rates for the 5 years were 29, 48 and 67 deaths per 1,000 live births, respectively. In other words, in Ethiopia one in every 35 children dies within the first month, one in every 21 children dies before celebrating the first birthday, and one in every 15 children dies before reaching the fifth birthday. In Ethiopia, suboptimal newborn care practices still persist and neonatal mortality rates have been resistant to change and contributes about 43% of all under - five deaths.[3]

Study in four different regions (Amhara, Oromia, Tigray and Southern Nations, and Nationalities and People Region) of Ethiopia revealed that mothers' unprompted knowledge of newborn danger signs was rather low with only 29.3% of respondents being able to name three or more danger signs out of a list of 11.[4] Study done in Eastern Tigray showed essential newborn care knowledge and practice of mothers revealed that 80.4% had good knowledge and 92.9% had good practice. Most mothers had good knowledge on temperature maintenance, breast feeding initiation and first bathing time.[5] Insufficient knowledge of parents during this period could lead to parents' confusion and decreased quality of care that in turn threaten the neonatal health and could even contribute to significant neonatal morbidity and mortality as well.[6]

There is a significant dearth of research on this field from our region. In view of this, this study was designed to assess knowledge, attitude and practice of mothers towards newborn care in Harari region of Ethiopia. This study has been aimed to contribute in reducing the neonatal morbidity and mortality in the future in Africa and other developing regions of the world.

METHODS

The study was conducted at Jugal hospital, Harar city, Ethiopia. Harar city is located around 500 km east of Addis Ababa, the capital city of Ethiopia. Our hospital is the first Governmental hospital in Ethiopia established in 1902, named as Misrak Arbegnoch Hospital and the hospital changed its name to Jugal hospital. Currently, the hospital has around 208 health care professionals and non-health professionals for administrative facilitation. We have four adult OPDs, one Paediatrics OPD, Emergency Department and one follow up clinic. On average, at daily basis from Monday to Friday, a total of around 150-180 patients are seen. Regarding the number of deliveries, on average, around 31 deliveries occur per day. Among those, around four to five deliveries are conducted by emergency and elective Caesarean sections each. We conceptualised institutional based quantitative cross sectional study to assess knowledge, attitude and practice of mothers towards newborn care. The Ethical approval was granted by Harar Health Science College Research ethical committee (No. HHSC-06130/2019). Data were collected from July 1st to 15th July, 2019. A total of 418 samples were calculated using a single population proportion formula by assuming 5% marginal error and 95% confidence interval ($\sigma = 0.05$) and by estimation of the proportion of mothers' knowledge and practice considering to be 44.7%,[4] and by adding 10% of non-response rate. Mothers who consented to study were included and mothers who were sick, non-responsive or who had lost their baby were excluded. A systematic random sampling methods was used by skipping 2 mothers until sample size fulfilled. Data were collected by interview method using structured questionnaire. The questionnaire were gathered and checked for completeness. Data were coded and entered into SPSS version 20. Data analysis was done using descriptive as well as inferential statistics. Univariate, bi-variate and multivariate analysis was carried out. Odds ratio (OR) with confidence intervals and p-values were calculated. P - value of ≤ 0.05 taken as level of significance. Participants who scored greater than or equal to the mean were considered knowledgeable and the others were labeled as not knowledgeable. Respondents who scored greater

than or equal the proxy variable were considered as having positive attitude and those who scored less than the proxy variable were considered as having negative attitude. Respondents who scored greater than or equal to the proxy variable were considered as having good practice and those who scored less than the proxy variable were considered as not having good practice.

RESULTS

Table 1 shows that among 418 postnatal mothers enrolled, 414 respondents were interviewed making response rate 99%. Mean age of the respondents was 26.8 (SD ± 3.78) years with a minimum and maximum age of 18 years and 39 years respectively. Most of the study participants 199 (48.07%) were in the age group of 25 to 29 years. Majority of respondents 361 (87.2%) were married and 163 (39.37%) were house wife.

Table 2 reveals that among all the respondents who had attended antenatal clinic, 216 (52.17%) were multi-parous, one fourth {102 (24.64%)} were delivered through Caesarean section and majority of mothers gave birth to female babies.

We found that among the respondents, 382 (92.27%) had received different information regarding newborn care and the remaining 32 (7.73%) had not received any information regarding newborn care. Of those who had received information / education regarding newborn care, 61.35% mentioned that nurses provided the information. Regarding the type of information, received, 99.28% of respondents had received information regarding immunisation and 399 (96.38%) received information regarding breastfeeding.

Table 1. Distribution of Socio demographic Characteristics of Respondents (N = 414)

Variable		Frequency	%
Age of mother in years	15 - 19	32	7.73
	20 - 24	91	21.98
	25 - 29	199	48.07
	30 - 34	67	16.18
	35 - 39	25	6.04
Marital status	Single	29	7.00
	Married	361	87.20
	Divorced	24	5.80
Educational status	No formal education	29	7.00
	Able to read and write	89	21.50
	Primary	133	32.13
	Secondary	93	22.46
	Diploma and above	70	16.91
Employment	Housewife	163	39.37
	Private	119	28.74
	Government	132	31.88

Table 2. Antenatal, Natal and Postnatal Information of the Respondents (N = 414)

Variables		Frequency	%
Parity	Primi	198	47.83
	Multi	216	52.17
Pregnancy in month at first visit	1 - 2	77	18.60
	3 - 4	193	46.62
	5 - 6	56	13.53
	7 and above	88	21.26
No of Antenatal visit	2 - 3	313	75.60
	4 - 5	70	16.91
	6 and above	31	7.49
Mode of delivery	Vaginal delivery	312	75.36
	Caesarean section	102	24.64
Delivery room stay after delivery	2 - 3 Hours	312	75.36
	2 - 5 Days	102	24.64
Sex of the neonate	Male	113	27.29
	Female	301	72.71

Table 3. Source and type of information received, by Respondents (N = 382)

Variable		Frequency	%
Provider of information on newborn care	Doctor	118	28.50
	Nurses	254	61.35
	Family	184	44.44
	Media (e.g. pamphlets, brochures, magazines)	211	50.97
	Peers / friends	111	26.81
Type of information received	Breastfeeding	399	96.38
	Cord care	313	75.60
	Eye care	85	20.53
	Thermoregulation	10	2.42
	Immunization	411	99.28

Table 4. Respondents knowledge on breast feeding and thermoregulation of newborn (N = 414)

Variable			frequency	%
Breast feeding	Immediate breast feeding soon after delivery	Yes	381	92.03
		No	33	7.97
	Exclusive breastfeeding for six months	Yes	323	78.02
		No	91	21.98
	Babies should be breastfed on demand	Yes	277	66.91
		No	137	33.09
	Colostrums' should be given to baby	Yes	323	78.02
		No	91	21.98
Thermo-regulation	Skin to skin contact prevents heat loss in your baby	Yes	121	29.23
		No	293	70.77
	Warm clothing prevents heat loss in your baby	Yes	333	80.43
		No	81	19.57
	The first bath should be given after 24 hrs	Yes	397	95.89
		No	17	4.11

Table 4 reveals that 381 (92.03%) mothers reported that immediate breast feeding soon after delivery of newborns is necessary, 91 (21.98%) mothers reported that they squeezed out the colostrum before breastfeeding the newborn and regarding exclusive breastfeeding for six months, only 91 (21.98%) reported feeding their newborns food or liquid other than breast milk in the first two days. Similarly, 292 (70.58%) and 115 (27.8%) mothers replied that they feed their newborn eight to 12 times and on demand respectively. Almost all (98.1%) newborns were breast-fed and 397 (95.9%) newborns were initiated breastfeeding within an hour after delivery. All mothers believed that babies should be breast fed at both day and night. Two hundred ninety nine (72.22%) mothers knew that vaccines were given to prevent diseases among newborn children whereas the rest 115 (27.78%) did not have such knowledge. Only 217 (52.42 %) mothers correctly stated that the stump should be uncovered whereas the rest 197 (47.58%) mothers had preoccupied wrong notion about cord care. All mothers correctly stated that a previously used razor blade should not be used to cut the cord 100%. The umbilical cord was cut with a new or

Table 5. Attitude regarding newborn care among the respondents (N = 414)

Variable		Frequency	%
Breastfeeding should be done at both day and night	Agree	277	66.91
	Not agree	137	33.09
Mixed feeding should not be practiced	Agree	323	78.02
	Not agree	91	21.98
Babies shouldn't be bathed in cold water	Agree	406	98.07
	Not agree	8	1.93
Mother-baby skin to skin contact prevent cold	Agree	121	29.23
	Not agree	293	70.77
A previously used razor blade should not be used to cut the cord	Agree	414	100.00
	Not agree	0	0.00
Vaccines are harmful to your baby	Agree	115	27.78
	Not agree	299	72.22
Substances (aside from those prescribed) can be applied to infected eye	Agree	17	4.11
	Not agree	397	95.89

boiled blade in 312 (75.36%) deliveries, and 102 (24.64%) mothers didn't know what was used. Almost all (97.6%) replied that nothing was applied on the umbilical stump, but 10 (2.4%) had used butter and vaseline. In regards to cloth use, 227 (54.8%) mothers had used new cloth and 157 (37.9%) mothers used old washed cloth. Similarly, 333 (80.43%) mothers believed that warm cloth prevents heat loss from neonate, while 29.23% mentioned that mother-baby skin to skin contact prevents cold from neonate. In regards to eye care, 397 (95.89%) mothers reported that redness of eye is indicator of eye infection whereas the rest 17 (4.11%) did not know about the red eye. Table 5 shows that 33.6% mothers felt that baby shouldn't be bathed in cold water. Majority of the respondents 404 (49.3%) said they bathed their newborn after one day of birth and 150 (36.2%) of them said that they bathed the newborn baby immediately. Regarding safety of vaccines, 2.9% believed that vaccines would harm their children.

The overall knowledge level of the study participants shows that 74% of the respondents had good knowledge. The overall attitude score of the study participants shows that 77.14% of the respondents had positive attitude. The overall

Table 6. Practice regarding newborn care among respondents (N = 414)

Variable		Frequency	%
Baby placed when delivered	On the mother's abdomen	365	88.16
	On clean surface	49	11.84
Instrument used to cut the umbilical cord	New or boiled blade	312	75.36
	Don't know	102	24.64
Substance applied on the stump	Yes	404	97.58
	No	10	2.42
Neonate was wrapped	Old washed cloth	157	37.92
	New cloth	227	54.83
Wash breast and hand before breastfeeding	Yes	403	97.34
	No	11	2.66
Time of first bathing after birth	Immediately after birth	0	0.00
	After 6 hrs of birth	20	4.83
	After one day of birth	337	81.40
	Other (After a week)	57	13.77
Newborn's first feed	Breast milk	404	97.58
	Cow milk	3	0.72
	Other	7	1.69%
Time of first breastfeeding	Immediately	312	75.36
	30 minutes - 1 hr	49	11.84
	Other (after 2 hours)	53	12.80
Other fluid/ feeds given to a newborn baby	Yes	91	21.98
	No	323	78.02
Frequency of breastfeed	< 8 times / day	37	8.94
	8 to 12 times / day	92	22.22
	On demand	277	66.91
	Don't breastfeed	8	1.93

practice score of the study participants shows that majority 65.45% of the respondents had good practice.

DISCUSSION

Combating neonatal morbidity and mortality requires equipping mothers with correct knowledge and attitude on newborn care and ensuring

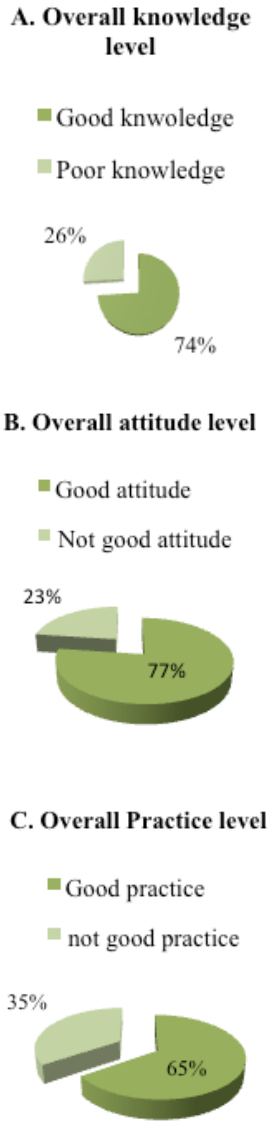

Figure 1 A,B,C. Mothers' overall knowledge, Attitude and Practice level of newborn care in Jugal Hospital, Harari regional state, Ethiopia, 2019

appropriate practices. The awareness and knowledge among mothers regarding newborn care need to be enhanced in order to achieve better targets in infant and under-five mortality and morbidity.[7]

In this study out of the total respondents interviewed, 74% of the respondents had good knowledge of newborn care and 77% of the respondents had positive attitude. This figure is higher than a study done at Madurai, Tamil Nadu, India where 61% of respondents had favourable attitude[8], whereas it is lower than the finding of a community-based study conducted in Ethiopia

80.4%.[5] This discrepancy may be due to the fact that there is socio-cultural difference. We had found that 65% of the study participants had good practice which is different from other studies done at other parts of Ethiopia.[5,9,10] Similarly, we found that the overall good ENBC practice was 81.1% which is different from other studies from Ethipia.[5,10] Regarding umbilical cord care, 52.42% of them correctly stated that the stump should be uncovered, kept clean & dry and 100% of mothers knew that new blade is used to cut the cord after delivery. This figure is in contrast to similar study done in northern Cameroon and Rohtak, Haryana, India, which had showed the use of sterile material for cutting umbilical cord by 88.5% and 88.6% mothers.[11,12]

About breastfeeding, 66.91% of the study subjects knew that breastfeeding should be on demand, 78.02% knew about exclusive breastfeeding for 6 months and 75.36% knew optimal time of breastfeeding initiation is immediately after birth. This finding is much lesser than presented in a study done in Nepal, where all respondents had these knowledge. However, in Southern Tanzania, 83%[14] had this knowledge and in Garoua city, Northern Cameroon, only 44.3% were aware of it.[11,14] Regarding bathing, 95.3% bathed their baby after 24 hours of age in our study, which is much higher than previous studies conducted in different parts of Ethiopia in the past.[4,10] These differences could be explained by various socio-cultural factors, geographic conditions, demographic backgrounds as well as methodological difference of the studies.

Although this study has tried to assess the important aspect of newborn care in Ethiopia, our study has many limitations. It is a single centric, relatively small, cross sectional, questionnaire based study which is liable to recall bias. As the data is collected at a single point in time, we could not establish temporal relationship. Despite these limitations, information gained from this study can be used as a baseline to provide input for developing feasible and sustainable behavioural change and educational interventions. We are hopeful that our study would help increase the awareness among mothers regarding essential newborn care so that the neonatal morbidity and mortality is reduced in the future.

CONCLUSIONS

This study indicated that nearly half respondents had good knowledge, positive attitude and good practice of newborn care. However, some respondents had below average score of knowledge, attitude and practices of newborn care.

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