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KNOWLEDGE APTITUDE AND PRACTICE OF ESSENTIAL NEWBORN CARE AMONG MOTHERS OF WELL BABIES: AN OBSERVATIONAL STUDY

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ABSTRACT **Background:** Globally 3.1 million children die each year in their neonatal period (first 28 days of life) according to World Health Organization (WHO) 2011 report. Half of these surprisingly occur within the first 24 h of delivery and 75% occur in the early neonatal period (1). The present study was designed to assess the knowledge and attitude of neonatal care practices among postnatal mothers who delivered in a tertiary care hospital in the suburbs of a metro city, catering to lower and middle-income population. **Materials and Methods:** This descriptive study was carried out in the Department of Neonatology of a tertiary care hospital in South India, during November 2020 to January 2021. The data was collected from 355 postnatal mothers by trained interviewers using a structured proforma. In addition to demographic data, mothers were also asked about their knowledge on and attitude towards various components of essential new-born care and the practices they follow. Scoring of the responses to questions was done and the data was analysed using SPSS Ver.13. **Results:** Knowledge of mothers was inadequate in areas of umbilical cord care (60.3%), thermal care (58.9%) Breast feeding (27.89%) and vaccine preventable diseases (7.1%). Eighty-two percentage of them practiced appropriate hand hygiene practices while handling new-borns and 15.2% of them gave pre lacteal feeds like water, cow milk etc., to their babies. This study indicates that awareness and attitude of postnatal mothers towards neonatal care has improved a lot in breast feeding, knowledge of immunisation practices and appropriate hand hygiene. There are areas of lacunae especially in those who belong to the lower socio-economic status in providing warmth and appropriate cord care. There is scope for improvement by providing focussed care and health education for antenatal mothers and immediate post-natal mothers in the areas of deficiency, for achieving hundred percent essential new-born care in reducing neonatal mortality and morbidity.

KEYWORDS : Essential Newborn care, Postnatal mothers, Knowledge-Attitude-Practice (KAP)

INTRODUCTION

Globally 3.1 million children die each year in their neonatal period (first 28 days of life) according to World Health Organization (WHO) 2011 report. Half of these surprisingly occur within the first 24 h of delivery and 75% occur in the early neonatal period [1]. One of the targets of the MDG was a two-thirds reduction in infant and child mortality by 2015; it was intended to achieve by involving skilled birth attendants, increasing immunization coverage against six vaccine preventable diseases, improving the status of women through education, and enhancing women participation in the labour force [2]. WHO recommended Essential New born Care (ENBC) practices to reduce the risk of the main causes of neonatal deaths in both community and facility deliveries [3]. ENBC is a comprehensive strategy designed to improve the health of new-borns through interventions before conception, during pregnancy, at and soon after birth, and in the postnatal period [4].ENBC practices, as recommended by WHO, include drying (wiping) and wrapping the new born immediately after birth, initiating skin-to-skin contact, dry cord care (not applying any potentially harmful substance to the umbilical cord), immediate initiation of breastfeeding and delayed bathing (for at least 6 h) [5].

Traditional practice like pre-lacteal feeding, avoiding of first milk and application of material on the new born stump was practiced by the majority of study participant in the study area. Therefore, improving new born survival is a major priority in child health today and the government sets universal sustainable development goals which state to end preventable deaths of new-borns and under-five children [6].

This is a study set in a tertiary care centre in the suburbs of a metro city, catering to the population of low- income and middle-income groups. It is a baby friendly hospital promoting exclusive breast feeding. The educational status of the mother, knowledge and training of HCW, socio-economic and cultural pressures from the extended family are an important hurdle to overcome the achievement of 100% implementation of essential new-born care in the well babies in the postnatal ward [7]. The purpose of this study is to identify the challenges in implementation of essential new-born care to the neonates delivered in a semiurban tertiary care centre and analysing the results for suggesting suitable modifications of practice according to the population under study, for better implementation and neonatal outcomes with essential new born care practices.

MATERIALS AND METHODS

The present study was designed to assess the knowledge and attitude of neonatal care practices among postnatal mothers in a tertiary care hospital. This descriptive study was carried out in the Department of Neonatology of a tertiary care hospital in South India, during November 2020 to January 2021.There was 464 deliveries during the study period, of which 109 were excluded due to various reasons (mother admitted to ICU or baby in NICU). After the exclusion, data was collected from 355 postnatal mothers by trained interviewers using a structured proforma. In addition to demographic data, mothers were also asked about their knowledge on and attitude towards various components of essential new-born care and the practices they follow. The components of essential new born care that were assessed were knowledge on providing warmth, breast feeding, umbilical cord care, eye care, hygiene (preventing infections) and immunisation practices. In addition, the local existing bad child rearing practices were documented. The responses were recorded by trained interviewer's, scoring of the responses to questions was done and the data was analysed using SPSS Ver.13.This study was approved local ethics committee, and the office of research administration.

RESULTS:

Of the 355 new-borns, only 39.7% (141) was judged to have had safe cord care, 41.1% (146) optimal thermal care,72.11% (256) were considered to have had adequate neonatal feeding, infection control was practised by293(82.5%) and330(92.9%) were aware about immunisation practices.

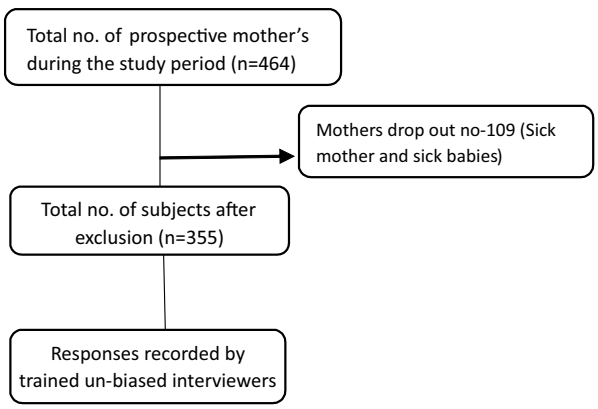

Figure 1. Study flow chart

The overall prevalence of adequate new born care comprising good

cord care, optimal thermal care and good neonatal feeding practices was only 139(39.15%). Educational status, (OR=7.02, 95%, CI=2.27, 21.74), immediate PNC visit, (OR=3.22, 95% CI = 1.18, 9.48), advise about Essential new born Care practices during monthly pregnant mothers group meeting (OR=4.77, 95%CI=1.11, 19.79) advise about birth preparedness during ANC visits (OR=9.05, 95% CI =2.76, 29.61) were found to have statistically significant association with essential new born care practices.

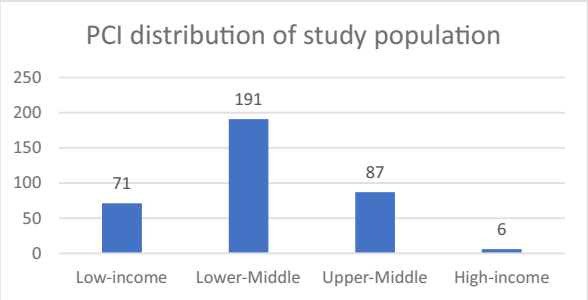

Chart1-Distribution of Per capita Income in study population

Table1.Socio-demographic characteristics of the mother

Variable	Frequency(n)	Percentage (%)
Mother age <20	13	3.7
20-34	315	88.7
34-45	28	7.6
Maternal Education status		
Illiterate	46	12.9
School dropout	97	27.3
Finished school	112	31.5
Graduate	100	28.1
Per Capita Income- Low	71	20
Lower middle	191	32.6
Upper middle	87	24.5
High	6	0.016
Parity -1	126	35.4
2-4	217	61.1
>5	12	3.38

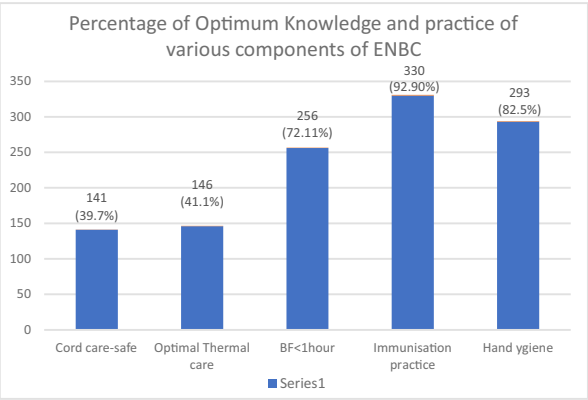

Chart2: Components of Essential new born care

Table.2 Components of essential new born care

Newborn care practice	Frequency n(%)
Instrument used to cut umblical cord	
Clean Blade	48(13.53%)
Clean scissors	141(39.71%)
Not known	166(46.76%)
Material for cord clamp	
Cord clamp	246(69.29%)
Thread	0
Not known	109(30.70%)
Substance applied on stump	
Nothing	176(49.57%)
Native drug	131(36.90%)
Cow dung etc.,	48(13.52%)
Baby clothed and covered	
2 layered clothing	126(35.4%)
No Idea	14(0.04%)
Usually uncovered	215(60.5%)
Timing of first bath	
Within 24 hours	0
No idea	57(16.05%)
After the stump had fallen	298(83.94%)
Vaccination at birth	
Yes	324(91.2%)
No Idea	31(8.73%)
Exclusive breast feeding	
<1 hour given	255(71.8%)
Prelacteal feed given	54(15.21%)
>1 hour before breast feeding	46(12.95%)
Hand hygiene	
Yes	293(82.5%)
No idea	62(17.46%)

DISCUSSION

Generally, in this study the coverage of essential newborn care practice was low. Even though all the women had an institutional delivery and clean cord care was practiced 246(69.9%), the knowledge of the mothers about the practice was a little deficient 109(39.9%). Due to socio-cultural influences and the family pressure, application of other native substances on the umbilical stump 179(50.4%) of the women practiced. In a similar study done in Nepal, the authors concluded that even deliveries conducted in health facilities are prone to suffering from traditional care practice after discharge from health facilities. Most of these deaths could be avoided with changes in antenatal, delivery and new born care practices.[8]. Bathing of the new born after 24 h was practiced by the majority 298(83.94%) of the women, maybe due to the existing cultural customs and health education as well.

An above average coverage of initiation of breast feeding within one hour and giving colostrums 255(71.1%) was observed in our study, probably due to institutional delivery where AN counselling and health education is already existing. But it was also observed that 54(15.21%) of the women in this study gave pre-lacteals. Also,52% of the mothers applied some native substance on the cord as advised by senior family member after discharge from hospital. Confounding factors of lower per capita (52.6%) and lower educational status (71.8% had attended school but 60% of them were school dropouts) among the study group may be the reason for difficulty in implementing optimal new born care. In a study done in Pondicherry by Vijayalakshmi et al., significant association was observed between socio- economic status and application on umbilical cord. Mothers who belonged to poor class practiced application on umbilical cord stump as compared to middle/high class mothers [9]. So, a long-term goal of improving the semiurban and rural literacy rate among women and increasing Per Capita Income may help in achievement of appropriate new born care which may eventually reduce. neonatal mortality and morbidity.

Health extension workers should also promote and give health education about pre-lacteal feeding, early bathing, planned pregnancy, new born danger signs and application of materials on the new born stump. The study identified low comprehensive practices of essential new born care on certain components in the study area. Community-oriented promotion of essential new born care practices including women empowerment through education, promotion of suitable IEC materials and emphasizing and providing information and education to all pregnant women is recommended over these focused areas of deficiency.

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