Vol 1 | Issue 1 | July- September | 2021

ORIGINAL ARTICLE - PUBLIC HEALTH

KNOWLEDGE AND PRACTICE REGARDING KANGAROO MOTHER CARE AMONG POSTNATAL MOTHERS OF PRETERM BABIES.

Saimona R S[1], Sudharshini Subramaniam[2], Ramasubramanian[3]

1) - 1CRRI, Madras Medical College, Chennai, Tamil Nadu, India.

2) -2Associate Professor, Institute of Community Medicine, Madras Medical College, Chennai, Tamil Nadu.

3) Associate Professor, Department Of Community Medicine, Omandhurar Medical College, Chennai, Tamil Nadu, India.

Abstract

Introduction: India is one of the countries which have registered a largest number of neonatal deaths, 35 percent of which are attributed to preterm birth and low birth weight. Among many strategies available, Kangaroo mother care (KMC) is easiest, cheapest and beneficial technique in reducing neonatal mortality. So, it is the need of the hour to increase knowledge and awareness regarding KMC. The objective of the present study is to find out the knowledge and practice regarding kangaroo mother care among postnatal mothers of preterm babies.

Methods: A cross sectional study was conducted among 60 postnatal mothers of preterm babies in the postnatal ward of the Institute of Obstetrics and Gynaecology, Egmore, Chennai with duration of two months. Consecutive sampling method was used and a one to one interview based on validated structured questionnaire was conducted to assess the knowledge and practice. Photo exhibition and demonstration of technique were conducted for feasibility.

Results: Only 22 out of 60 mothers (36.7 %) were found to have adequate knowledge regarding KMC All the mothers who had adequate knowledge were practicing KMC, mostly initiated KMC within 48 hours of birth.90% of mothers were willing to practice KMC further after demonstration of KMC and the rest expressed inconvenience due to lack of privacy in their homes. All the mothers felt it a useful technique and were willing to recommend to others.

Conclusion: Overall knowledge and practice of KMC is very less. But almost everyone was willing to practice KMC further and recommend it to others after knowing about the benefits of KMC and had a positive attitude. So, proper awareness and counselling in the antenatal period itself is needed to increase the practice of KMC, thereby reducing neonatal mortality.

Keywords: KMC, neonatal mortality, knowledge and practice, need of the hour

INTRODUCTION

Kangaroo care or kangaroo mother care (KMC), sometimes called skin-to-skin care, is a technique of new born care where babies are kept skin-to-skin with a parent, typically their mother.(1) It is most commonly used for low birth-weight preterm babies, to prevent hypothermia and support breast feeding. This technique was initially developed in 1970s to care for preterm infants in countries where infrastructure facilities were not available. (2) In India, almost 1/3rd of the neonatal deaths is attributed to preterm birth and low-birth weight.(3) KMC is proven to be effective and inexpensive intervention in reducing infant mortality rate, rate of hospitalisation and increases weight gain.(1) KMC helps in keeping the baby warm, promotes brain development and weight gain, increases bonding, reduce postnatal stress, enhance milk production.(4) It is the need of the hour to give education to nurses as well as to the mothers of the kangaroo mother care that the KMC is given to all babies less than 2000 gram and born before 37 weeks of gestation the baby is placed upright inside mother's clothing against skin. A loose garment like blouse, sweater or wrap tied at the waist holds the baby.(5) From the previous studies, it can be concluded that there is poor awareness among women regarding kangaroo mother care and it's benefits.(6)(7) This study is conducted to assess the knowledge and practice of kangaroo mother care among postnatal mothers of preterm babies. The importance of this study lies in the fact that it can be used as a tool for health education regarding kangaroo mother care.

METHODS

The cross-sectional study was conducted in the postnatal ward of Institute of obstetrics and gynaecology, Chennai. The study was conducted for two months from May to June 2018. Mothers of consecutive sample of 60 preterm babies admitted to postnatal ward of Institute of obstetrics and gynaecology from May to June 2018 were studied to assess the knowledge and practice. Consecutive sampling was done. Postnatal mothers of preterm babies born before 37 weeks of gestation and those who were willing to participate in the study were included in the study. Official permission to conduct the study was obtained from the Head of the Institute after approval from the Institutional ethics committee. After explaining the

Please Scan this QR Code to
View this Article Online
Article ID: 2021:01:01:04
Corresponding Author : Sudharshini
e-mail:sudharshini90@gmail.com

purpose of the study , informed consent was obtained from the study participants. Face to face interview was conducted using validated structured questionnaire. Photo exhibition was used to assess knowledge about Kangaroo mother care (Fig.1). The postnatal mothers who has heard about Kangaroo mother care and knew about correct positioning were considered to have adequate knowledge.

[Source: Adapted from 'THEHINDU' 21 November, 2014]

Fig.1.Picture depicting KMC

RESULTS

A total of 60 postnatal mothers with preterm babies participated in this study. Socio-demographic data of mothers, under study and characteristics of neonate are given in (Table .1) and (Table .2) respectively.

Out of 60, 22 mothers had heard about KMC, all were aware of the proper KMC positioning. They also were able to tell the benefits of KMC. (Table.3). Out of 22 mothers who heard about KMC,18 heard about KMC from hospital and 4 from media.10 out of 22 responded that KMC helps to increase birth weight of the baby, rest of them told that it increases body temperature and promotes bonding. Mothers who had higher educational status, who had previous history of preterm birth and those from urban residence had more adequate knowledge (Table.4).

All mothers who had adequate knowledge practiced KMC, 22 out of 60 mothers were practicing KMC before the study. Majority of mothers initiated KMC after one day, only few initiated after 2 days. Attitude of the mothers towards KMC was assessed after demonstrating KMC technique and asking them to practice in front of investigator.10 out of 60 mothers felt inconvenient practicing KMC.8 felt inconvenient due to lack of privacy. 2 felt inconvenient due to pain post caesarean section.

Table1: Socio-demographic characteristics of mothers

Socio demographic characteristics(N-60)	Frequency	Percentage
Maternal age(in years)		
<20	2	3.33
20-30	50	83.3
30-40	8	13.3
Residence		
Urban	47	78
Rural	13	22
Maternal education		
Upto 10th std	18	30
Upto 12th std	27	45
Graduation	15	25
Monthly income of family (in Rupees)		
5000-10000	19	31.6
10000-15000	29	48.3
15000-20000	12	20.1
Previous history of preterm birth		
Yes	20	34
No	40	66

Table2: Characteristics of the neonates of the postnatal mothers

Characteristics(n-60)	Frequency	Percentage
Sex of the baby		
Male	28	46.6
Female	32	53.3
Type of delivery		
Vaginal delivery	0	0
Caesarean section	60	100
Gestational age at birth(weeks)		
Moderate to late preterm(32-37 weeks)	50	83.3
Very preterm(28-32 weeks)	10	16.6
Birth weight(kg)		
Low birth weight (≥1.5 to<2.5 kg)	54	90
Very low birth weight(<1.5 kg)	6	10
Initiation of breastfeeding(hours)		
Within 2 hours	45	75
2-24 hours	10	16.6
>24 hours	5	8.3
NICU admission		
Yes	8	13.3
No	52	86.6

Table 3: Knowledge regarding Kangaroo Mother Care

S.No	Questions To Assess Knowledge	Frequency Positive Response (Yes)	Percentage
1.	Heard about KMC	22	36.7
2.	Time of initiating breastfeeding	25	41.6
3.	Baby should have skin contact after birth	22	36.7
4.	Know about the benefits of KMC	22	36.7

Table 4: Factors affecting level of knowledge

Factor	No.of Participants Under The Factor	Adequate Knowledge	Inadequate Knowledge
Maternal education status	Graduated=15	10 (66.6%)	5 (33.3%)
	Not graduated=45	12 (26.6%)	33 (73.3%)
Previous history of preterm birth	Yes=20	13 (65%)	7 (35%)
	N0=40	9 (22.5%)	31 (77.5)
Residence	Urban=47	21 (44.6%)	26 (55.4)
	Rural=13	1 (7.6%)	12 (92.3%)

54 out of 60 mothers told that they would practice it hereafter and all of them wished recommend to others.6 mothers were not willing to practice due to lack of privacy in their homes as a result of poverty. Most of the mothers felt KMC as a very useful technique in promoting weight of the baby and improving breastfeeding. Next majority mothers felt that awareness and education about KMC must be increased. Only few felt privacy as a hindrance in practicing KMC.

DISCUSSION

In the above study, it is seen that 22 out of 60 mothers (36.7%) mothers had adequate knowledge about KMC. This is comparable to study in Ethiopia in which64% mothers had adequate knowledge (8) whereas in a study in northern Kerala mothers had lower level of knowledge (9)It can be seen that mothers with higher educational status had higher level of knowledge than the rest. This implies that if a female is educated more, all aspects of her life can be improved including her family life. It is also noted that the mothers who had previous history of preterm birth had higher level of knowledge. It signifies that a mother becomes more aware of kangaroo mother care if she has previously given birth to a preterm baby. Also, mothers from urban residence had higher level of knowledge, implying that KMC's reach to rural areas is still a far run. Out of 22 mothers, 18 knew about KMC from hospital which indicates no prior knowledge before coming to hospital.75% of mothers breastfed their babies within 2 hrs, which means mothers are more aware of initiating breastfeeding comparatively.

Out of 22 mothers practicing KMC, 82% initiated within 72 hours which is equally comparable with study done in Ethiopia (8) and comparatively lower compared to a study done in Ghana (10).All the participants of the study showed positive attitude towards KMC .They felt warmer and attached towards their baby. Only 10 mothers felt inconvenient practicing KMC .The reason quoted was lack of privacy and 2 among them felt pain due to caesarean section. They said that how could they practice KMC in a home where there is hardly space to live at all. So, poverty is a hindrance in practicing KMC. When asked about their low level of knowledge and practice, many said that there is no awareness regarding KMC. They felt that proper education and awareness is needed about KMC. All the mothers were ready to practice KMC as it is a easy and useful technique except for those who lacked privacy. The acceptance of KMC as a useful strategy in this study is comparatively higher than a study done in Ethiopia where only 65.04 percent of mothers accepted KMC as a useful technique (8).This shows knowledge, attitude and cultural differences in different parts of the world.

RECOMMENDATIONS

Counselling should be done to initiate KMC with specific focus on addressing the soci-cultutal barriers at a time convenient to the mother.The procedure should be demostartaed with adequate time provided for clearing her doubts.

LIMITATIONS

This study doesn't include term and post term babies, also babies with normal birth weight. This study includes only patients of Institute of Obstetrics and Gynaecology, Chennai and doesn't include patients of primary care and private health centres. Mothers who delivered by normal vaginal delivery didn't participate in the study.

DECLARATIONS

Funding:

This research was supported by Indian Council of Medical Research under Short Term Studentship-2018.

Ethical approval:

Formal approval was obtained from Institutional ethics committee, Madras Medical College, Chennai-600003 (no.17062018)

Conflict of interest : Dr. S. Sudharshini who is an author of this article is also a member of the editorial board and he was not involved with the processing and reviewing of this particular article.

REFERENCES

1. Charpak N, Ruiz-Peláez JG. Resistance to implementing

Kangaroo mother care in developing countries, and proposed solutions. Acta Pediatr. 2006;95:529–34.
2. WHO Executive Board. Making pregnancy safer; report by the Secretariat EB 107/26.5-12-2000.
3. Whitelaw A, Sleath K. Myths of the marsupial mother: Home care of very low birth weight infants in Bogota, Columbia. Lancet. 1985;1:1206–8.
4. Parmar VR, Kumar A, Kaur R, Parmar S, Kaur D, Basu S, et al. Experience with Kangaroo mother care in a neonatal intensive care unit (NICU) in Chandigarh, India. Indian J Pediatr. 2009;76:25–8.
5. Ramanathan K, Paul VK, Deorari AK, Taneja U, George G. Kangaroo mother care in very low birth weight infants. Indian J Pediatr. 2001;68:1019–23
6.Thukral A, Chawla D, Agarwal R, Deorari AK, Paul VK. Kangaroo mother care-an alternative to conventional care. Indian J Pediatr. 2008;75:497–503
7. Catteneo A, Davanzo R, Worku B, Surjono A, Echeverria M, Bedri A, et al. Kangaroo mother care for low birth weight infants: A randomized controlled trial in different settings. Acta Pediatr. 1998;87:976–85.
8. Abrham A, Binoy S, Naganuri M. Knowledge, Attitude and Practice of Kangaroo Mother Care by Postnatal Mothers who Gave Birth to Preterm and Low Birth Weight Babies in Public Hospitals, Eastern Ethiopia. Journal of Neonatal Biology. 2017 Jan 1;06.
9. Pushpamala Ramaiah et al., J Nurs Care 2016, 5:4(Suppl). Available from: http://dx.doi.org/10.4172/2167-1168.C1.020
10. Nguah SB, Wobil PN, Obeng R, Yakubu A, Kerber KJ, Lawn JE, et al. Perception and practice of Kangaroo Mother Care after discharge from hospital in Kumasi, Ghana: A longitudinal study. BMC Pregnancy Childbirth. 2011 Dec;11(1):99.