Original Research Article

Knowledge, Attitude and Behaviour Practices of Kangaroo Mother Care among Beneficiaries in Indore District

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Abstract

Background: Worldwide, low birth weight is an important under lying cause of neonatal mortality. In India, prevalence of low birth weight babies is high.[2] Kangaroo Mother Care is a low resource, evidence based, high impact intervention and standardised care for low birth weight in fants.[3] KMC reduces mortality as well as severe infections and length of hospital stay. This study aims to assess the knowledge, attitude and behaviour practices regarding kangaroo mother care among the beneficiaries and to study the appropriateness in kangaroo mother care practices among the beneficiaries.

Methodology: A cross sectional study was conducted from May 2021 to November 2021 in secondary and tertiary health care delivery centres of Indore district where KMC was provided for low birth weight babies. Total 75 beneficiaries from urban and 75 beneficiaries from rural were included. Data was entered in excel sheet and analysed by using SPSS 25.0 (trial version). Chi-square test was applied wherever necessary.

Result: 64% were aware of kangaroo mother care. 66.7% were aware of the benefits of kangaroo mother care. 47% had sufficient knowledge about the correct position of KMC. All the beneficiaries agreed that KMC is a useful process for babies. In the rural area, only 31.2% felt anxious or stressed while giving KMC and in the urban area, 34.3% felt the same thing. Family members of 32.3% babies took part in providing KMC. 61.4% beneficiaries were able to perceive heartbeat and breathing of their babies.

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Conclusion: Finding of this study suggests that very few beneficiaries had adequate knowledge regarding KMC which indicates a huge gap in knowledge. Awareness should be created among the beneficiaries about the benefits of kangaroo mother care so as to increase their enthusiasm for proper participation by using IEC materials like audio-visuals, posters, demonstrations etc.

Keyword: Kangaroo mother care, Knowledge, Attitude, Behavior practices

Introduction

Worldwide, each year 15 millionne on a tesare born preterm and consequently at a high risk of mortality.[1] In India, low birth weight is an important underlying cause of neonatal mortality. In India, prevalence of low birth weight babies is high.[2] Kangaroo mother care is a low resource, evidence based, high impact intervention and standardized care for low birth weight infants which, like breastfeeding, should be a part of routine care.[3] Kangaroo mother care is a cost effective intervention which reduces significantly neonatal morbidity and mortality.[4] Kangaroo mother care sometimes called as skin to skin contact, is a technique of newborn care where babies are kept chest to chest and skin to skin with a parent, typically their mothers. Minimum duration for per session in KMC should be atleast 1 hour. Kangaroo mother care helps both infants and parents. KMC reduces mortality as well as severe infections like sepsis, nosocomial infections. lower respiratory tract disease and length of hospital stay. KMC result in improved weight, length and head circumference, increased breastfeeding rates, better mother-infant bonding and maternal satisfaction with the method of care, as compared to the conventional methods. Hence, KMC should be used for all stabilized LBW infants. Duration of KMC is classified into 4 categories: Short, extended, long and continuous 4 hours, 5-8 hours, 9-12 hours, more than 12 hours daily.[3] KMC can be stopped once the gestation age reaches term or the weight is around 2,500 grams. The aim is to assess the knowledge, attitude and behavior practices regarding kangaroo mother care among the beneficiaries.

Objectives:

- To assess the knowledge, attitude and behavior practices regarding Kangaroo mother care among the beneficiaries.
- To study the appropriateness in Kangaroo mother practices among beneficiaries.

Methodology

A cross sectional study was conducted from May 2021 to November 2021 in secondary and tertiary health care delivery centers of Indore district where KMC was provided for low birth weight babies. At the tertiary level, MGM Medical College & MY Hospital and at the secondary level, all four community health centers from urban and rural area of Indore district were selected. Total 75 beneficiaries from urban and 75 beneficiaries from rural were included. An Informed consent was obtained from all the participants. All beneficiaries were interviewed with detailed predesigned semi-structured questionnaire to assess the knowledge, attitude and practice regarding kangaroo mother care. Data was entered in excel sheet and analysed by using SPSS 25.0 (trial version). Categorical data was expressed in terms of proportion and percentage. Comparisons of rural and urban areas were performed using chi-square test. p-value<0.05 was considered as statistically significant.

Inclusion criteria:

1. Mothers or care givers of low birth weight babies who gave consent.
2. Low birth babies without severe illness.

Exclusion criteria:

1. Sick Mothers and sick babies not eligible to receive KMC care.
2. Mothers/Caregiver who has not given consent.
3. Health care providers.
4. Who have not given consent

Ethical consideration: The study started after obtaining the ethical approval from Institutional Ethics Committee, MGM Medical College and MY Hospital, Indore.

Results

out of total beneficiaries 54% were in the age group of 18-27 years. In rural area, 28% were in the age group of 28-37 years and in the urban area, 34% were in the age group of 18-27 years (table 1).

Table 1: Distribution of beneficiaries (mother) according to age

S.No.	Age(inyears)	Rural (n=75)	Urban (n=75)	Total
1.	18-27	30(20%)	51(34%)	81(54%)
2.	28-37	42(28%)	19(12.7%)	61(4.7%)
3.	38-47	3(2%)	5(3.3%)	8(5.3%)
	Total	75(50%)	75(50%)	150(100%)

Table 2: Awareness about KMC among beneficiaries

S.No.	Variables	Rural(n=75)	Urban(n=75)	Total	p-value
1.	**Awareness about KMC**				
	Yes	42(28%)	54(36%)	96(64%)	0.041 Chi-Square Test
	No	33(22%)	21(14%)	54(36%)	
	Total	75(50%)	75(50%)	150(100%)	
2.	**If Yes, then through whom**				
	ANM	13(13.5%)	3(3.1%)	16(16.6%)	0.002 Fisher's Exact Test
	Nurse	14(14.5%)	18(18.9%)	32(33.4%)	
	Doctor	15(15.7%)	33(34.3%)	48(50%)	
	Total	42(43.7%)	54(56.3%)	96(100%)	

Out of the total beneficiaries, 64% were aware of kangaroo mother care. 28% from rural Indore while 36% from urban Indore were aware. In the rural area, 15.7% and in the urban area, 34.3% women got knowledge regarding KMC through doctors. 66.7% were aware of the benefits of kangaroo mother care. 47% had sufficient knowledge about the correct position of KMC. Beneficiaries of urban area had more knowledge than beneficiaries of rural area(Table 2).

Table 3: Attitude about KMC among beneficiaries

S. No.	Beneficiaries Assessment	Resident	Strongly agree	Agree	No opinion	Disagree	Strongly disagree	Total	p-value
1.	KMC is shameful thing	Ruraln-42 (43.7%)	0	0	0	18(18.7%)	24(25%)	96 (100%)	0.007 Mann whitney test
		Urban-54 (56.3%)	0	0	6(6.3%)	30(31.3%)	18(18.7%)		
2.	KMC is useful process forbabies	Rural-42 (43.7%)	26 (27.1%)	16 (16.6%)	0	0	0	96 (100%)	0.140 Mann whitney Test
		Urban-54 (56.3%)	41 (42.7%)	13 (13.6%)	0	0	0		
3.	I feel anxious or stressed while giving KMC	Rural-42 (43.7%)	5 (5.2%)	25 (26%)	5 (5.2%)	2 (2.1%)	5 (5.2%)	96 (100%)	0.843 Mann whitney test
		Urban-54 (56.3%)	10 (10.4%)	23 (23.9%)	7 (7.3%)	14 (14.7%)	0		
4.	I do not feel comfortable while giving KMC	Rural-42 (43.7%)	0	20 (20.8%)	5 (5.2%)	17 (17.7%)	0	96 (100%)	0.642 Mann whitney test
		Urban-54 (56.3%)	1 (1.0%)	26 (27%)	8 (8.3%)	19 (19.9%)	0		

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5.	I do not feel comfortable in the clothes worn for KMC	Rural-42 (43.7%)	0	8 (8.3%)	3 (3.1%)	30 (31.2%)	1 (1.1%)	96 (100%)	0.476 Mann whitney test
		Urban-54 (56.3%)	0	4 (4.2%)	10 (10.4%)	36 (37.5%)	4 (4.2%)		
6.	I recommend to other mothers about KMC	Rural-42 (43.7%)	27 (28.1%)	8 (8.3%)	7 (7.3%)	0	0	96 (100%)	0.0001 Mann whitney test
		Urban-54 (56.3%)	15 (15.6%)	12 (12.6%)	27 (28.1%)	0	0		

All the beneficiaries in the rural area and in urban area agreed that KMC is a useful process for babies. All the beneficiaries in the rural area disagree with the fact that KMC is a shameful thing while in the urban area, almost half of beneficiaries disagree with this fact. In the rural area, only 31.2% felt anxious or stressed while giving KMC and in the urban area, 34.3% felt the same thing. In the rural area, 20.8% did not feel comfortable and in the urban area, 37% did not feel comfortable while giving KMC. In the rural area, 19.6% beneficiaries thought that KMC helps to increase mother baby bonding while in the urban area, almost all beneficiaries felt the same thing. In the rural area, 8.3% did not feel comfortable in the clothes worn for KMC and in the urban area 4.2% did not feel comfortable. In the rural area, 36.4% recommended other mothers for KMC while in the urban area, 28.2% recommended other mothers for KMC(Table 3).

Out of total, family members of 32.3% babies took part in providing KMC from both urban and rural areas. Out of the total, 61.4% beneficiaries were able to perceive heartbeat and breathing of their babies from both urban and rural areas.

Discussion

In our study, total 64% beneficiaries were aware with the kangaroo mother care. Beneficiaries in the urban areas were more aware than the beneficiaries in the rural areas. In the rural area, 15.7% and in the urban area 34.3% women got knowledge regarding KMC through doctors. None of the beneficiaries had basic knowledge about KMC. Beneficiaries had only partial knowledge about KMC. 82.3% had knowledge that in KMC baby is kept continuously in skin to skin contact. 28.1% had knowledge that KMC is a special way for caring a baby. Similar study done by **Bajaj et al** in 2015 in that forty three out of the 55 mothers (72.8%) had good knowledge about KMC. The areas where knowledge lacked were correct position of the neonate while providing KMC, the expected weight gain while providing KMC, the criteria for stopping KMC, the advantages of KMC, and the duration of follow up post discharge.[5]

In our study, all the beneficiaries in the rural area and in urban area agreed that KMC is a useful process for babies. All the beneficiaries in the rural area disagree with the fact that KMC is a shameful thing while in the urban area, almost half of beneficiaries disagree with this fact. In urban area, beneficiaries felt more anxious or stressed while giving KMC. In the rural area, beneficiaries feel more comfortable while giving KMC than beneficiaries in the urban area. In the rural area, 8.3% did not feel comfortable in the clothes worn for KMC and in the urban area 4.2% did not feel comfortable. In the rural area, 36.4% recommend to other mothers for KMC while in the urban area 28.2% recommend to other mothers for KMC. Attitude of the beneficiaries in the rural area were more positive than beneficiaries in the urban area. Similar study done by **Gulati et al** in Mangalore, Karnataka, India in which after giving KMC, most of the mother's felt very good (n=60, 66.6%), and more closeness to their baby (n=90; 100%) and confidence about themselves in taking care of their little one (n=84; 93.3%). 96.6% of the mothers found it to be beneficial and necessary (97.7%) for their baby.[6]

In the rural area, 18.7% provided KMC for 4-8 hours and in the urban area 20.8% provided KMC for less than 4 hours.

Similar study conducted by **Gopikrishna et al**

2013, in that Practicable duration of KMC is 1, 2 and 12 hours as felt by 52%, 19.6% and 6.5% of mothers respectively.[7]

Conclusion

Findings of our study suggests that very few beneficiaries had adequate knowledge regarding KMC which indicates a huge gap in knowledge. Majority of beneficiaries also felt stressed, uncomfortable and anxious while giving KMC. However surprisingly majority of mother agreed to impart knowledge to other potential mothers.

Recommendations: Based on the findings of our study, awareness should be created among the beneficiaries by using IEC materials like audio-visuals, posters, demonstrations etc. about the benefits of kangaroo mother care to relieve their anxiety and stress so as to increase their enthusiasm for proper participation. We also recommend that mothers who are willing to participate in creating awareness of future mothers about KMC shall be recruited or motivated as peer educators by health system.

Ethical consideration: The study started after obtaining the ethical approval from Institutional Ethics Committee, MGM Medical College and MY Hospital, Indore. Ref no EC/mgm/Dec.-19/15

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