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Knowledge regarding Kangaroo Mother Care among Antenatal Mothers

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Background & Objective: Kangaroo mother care (KMC) is a safe and effective method of caring for low birth-weight (LBW) infants, especially in low-resourced settings. It satisfies all five senses of the baby such as touch (skin to skin contact), Hearing (listens to mother's voice and heart beat), Taste (sucks on breast), Vision (eye contact with mother), and Olfactory (smells mother's odor). The study aims to assess the knowledge of antenatal mothers regarding kangaroo mother care (KMC).

Methods: A descriptive cross-sectional design was used to assess the knowledge of antenatal mothers (28-36 weeks of gestation). Non probability convenient sampling technique was used to select 60 samples. Pretested semi-structured interview schedule was used for data collection. Data was analyzed using SPSS version 20. Descriptive statistics and inferential statistics were used to analyze the data.

Results: The study reveals that out of 60 samples, 40 (66.67%) respondents have adequate knowledge and 20 (33.33%) respondents have inadequate knowledge regarding Kangaroo Mother Care. It was found that, there was a significant association between knowledge and gravid status of the mothers.

Conclusion: Knowledge of antenatal mothers regarding kangaroo mother care was found high in this study. This might be because of their educational background and also increase awareness during their antenatal visits. Furthermore, structured teaching protocol and experimental studies can be conducted among mothers, care-givers and health professionals to increase awareness and practice regarding KMC.

KEYWORDS: Kangaroo Mother Care, Knowledge, Antenatal Mothers.

I. INTRODUCTION

Kangaroo mother care, also referred to as early skin-to-skin contact, is defined as carrying a stable, low birth weight (LBW) baby, dressed only in a nappy and a cap, and in some cases socks, hold between the mother's breasts, where he or she is kept warm, has ready access to feeding, is protected from infection, and is provided with stimulation and safety. In other words, the mother acts as an incubator, and the mother and infant are not separated for long periods of time.[1]

WHO estimates that each year about 20 million infants of low birth weight (LBW) are born world wide of which 95% of them are in developing countries. The incidence of LBW newborns is 32.8% in India alone. Still large numbers of deliveries are being conducted by untrained people especially in rural areas and urban slums. Therefore, the care of such infants becomes a burden for health and society.[2]

Birth weight is one of the significant determinants of newborn survival. Newborn deaths currently account for approximately 40% of all deaths of children under five years of age in developing countries—the three major causes being birth asphyxia, infections, and complications due to prematurity and low birth weight (LBW).[3] It is also estimated that, in developing countries, LBW infants are approximately 13 times more likely to die than normal birth weight counterparts. Medical cost is also significantly higher in caring for preterm and other LBW babies.[4]

The main benefits attributed to KMC include: reduction of hypothermia, sepsis, length of hospital stay, and risk of mortality at hospital discharge. Besides these, there are positive impact on the cognitive and motor development of preterm infants, maintenance of stability during transport of preterm or term infants, as well as vital signs in physiological levels, even when performed in preterm infants under mechanical ventilation and hemodynamically stable.[5]

A study on effectiveness of KMC among LBW infants and determined that KMC leads to faster stabilization than incubator care, resulting in 16% fewer infant deaths.[6]

A study was conducted as randomized controlled trial of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in 1200-to 2199-gram newborns found that: All 18 LBW newborns receiving KMC were stable in the sixth hour, compared with six out of 13 incubator babies. Eight of 13 incubator babies suffered from hypothermia, compared with none of the KMC babies. Stabilization (cardio-respiratory) score was higher for the KMC group. Mean temperature was higher in the KMC group in the first hour.[7]

In spite of the above mentioned advantages of KMC, it is still not a widely practiced method of care for all the LBW infants in India; also, there is insufficient data regarding the effect of KMC on growth parameters, acceptability of kangaroo care and long-term outcomes in very low birth weight (VLBW) infants.[8]

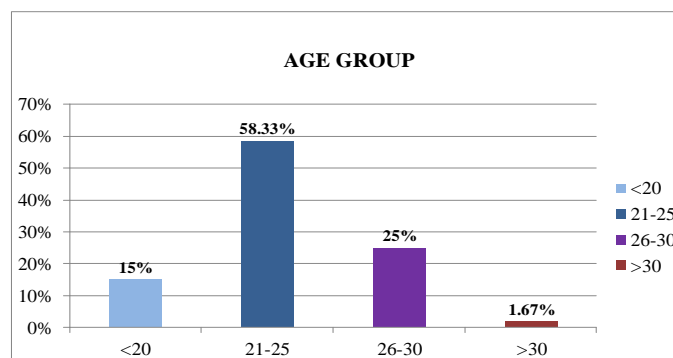
In developing countries like India, use of incubators in the management of LBW babies exerts a heavy financial burden on parents of LBW babies. Incubators are not affordable by the family members of LBW babies because of high cost. Hence, equally effective and low cost methods to manage the LBW babies like KMC are to be made aware to mothers of LBW babies. From intensive review of literature, it was found that KMC is beneficial for mother and baby especially the LBW baby and improve the bonding between mother and baby. Also, there has been no research conducted among antenatal mothers. So, researcher felt a need to conduct research in this topic.

II. MATERIALS AND METHODS

A descriptive cross-sectional design was used to assess the knowledge of antenatal mothers (28-36 weeks of gestation) regarding kangaroo mother care. Altogether 60 samples were selected using non probability convenient sampling technique. The study setting was Ganganagar Maternity Hospital, Bangalore. A pretested semi-structured interview schedule was used for data collection. The estimated reliability of knowledge questionnaire was $r=0.86$. The tool was divided into two parts: Section A: Consist of demographic variables such as age, education, occupation, religion, monthly income, type of family, place of living, gravid and Section B: Consist of questions on knowledge. Formal written permission was obtained from the Principal of BMJCON and Medical Officer of Ganganagar Maternity Hospital, Bangalore to conduct main study.

III. RESULTS

Figure1: Age Group of Respondents



n=60

Figure 1 shows that, out of 60 samples, majority 35(58.33%) of the respondents are between the age group of 21-25 years, 15(25%) are between the age group of 26-30 years, 9(15%) are below the age group of 20 years and 1(1.67%) is above the age group of 30 years.

Figure2: Educational Status of Respondents

n=60

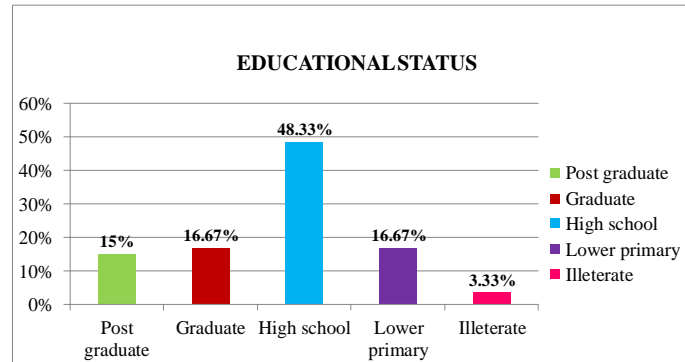


Figure 2 shows that, majority 49(48.33%) of the respondents have a high school education, 10(16.67%) are graduates, 10(16.67%) have a primary level education, 9(15%) are post-graduates and 2(3.33%) are illiterates.

Figure 3: Occupation of Respondents

n=60

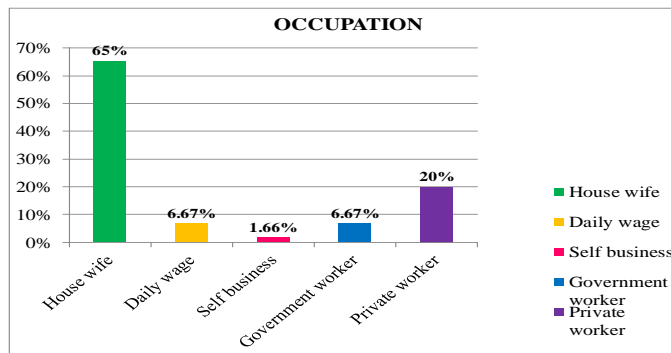


Figure 3 shows that, majority 39(65%) of the respondents are housewives, 12(20%) are private workers, 4(6.67%) are government workers, 4(6.67%) are daily wagers and 1(1.66%) has self business.

Figure 4: Religion of Respondents

n=60

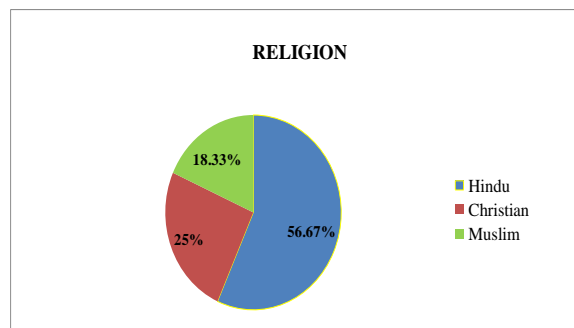


Figure 4 shows that, majority 34(56.67%) of the respondents belong to Hindu religion, 15(25%) belong to Christian religion and 11(18.33%) belong to Muslim religion.

Figure 5: Family Income of Respondents

n=60

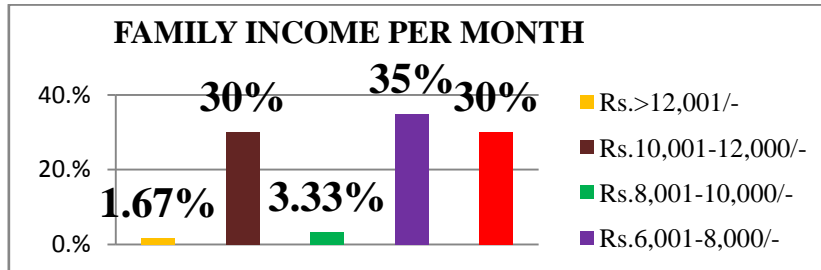


Figure 5 shows that, majority 21(35%) of the respondents have family income of Rs.6001-8000, 18(30%) have family income of Rs.10001-12000, 18(30%) have a family income of Rs.2001-6000, 2(3.33%) are having a family income of Rs.8001-10000, 1(1.67%) has a family income more than Rs.12000.

Figure 6: Type of Family of Respondents

n=60

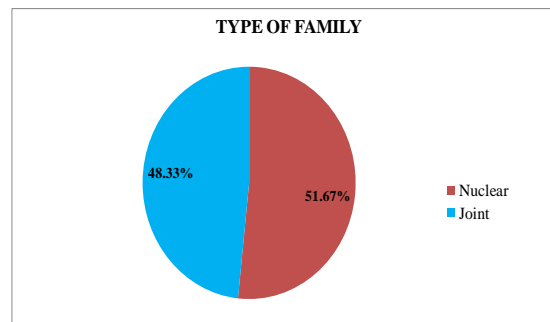


Figure 6 shows that majority 31(51.67%) of the respondents belong to nuclear family and 29(48.33%) belong to joint family.

Figure 7: Place of Living of Respondents

n=60

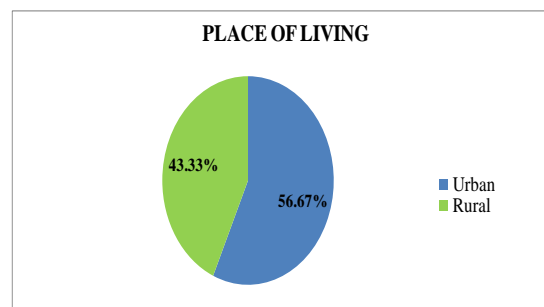


Figure 7 shows that, out of 60 respondents 34(56.67%) are from urban area and 26(43.33%) are from rural area

Figure 8: Gravida of Respondents

n=60

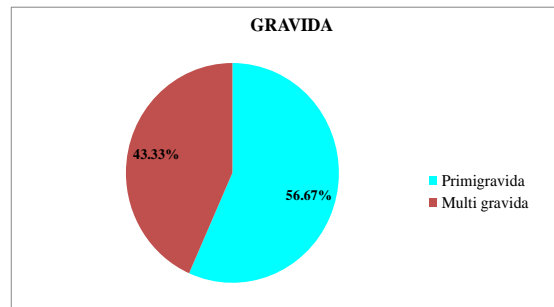


Figure 8 shows that, majority 34(56.67%) of the respondents were Primigravida and 26(43.33%) are multigravida.

Figure 9: Respondents' Previous Knowledge on Kangaroo Mother Care

n=60

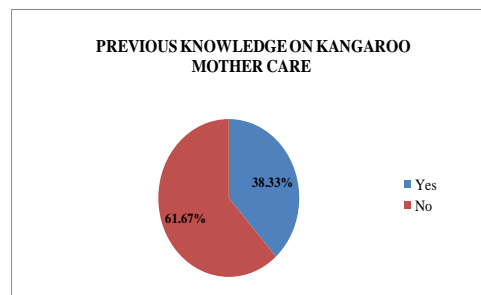


Figure 9 shows that, out of 60 respondents 23(38.33%) have previous knowledge about kangaroo mother care and 37(61.67%) do not have previous knowledge.

Figure 10: Source of Information

n=60

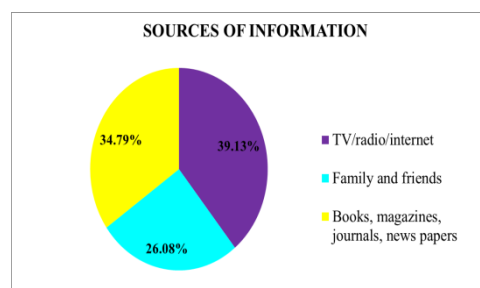


Figure 10 shows that, majority 9(39.13%) of the respondents got the information from TV/radio/internet, 8(34.79%) got the information from books/journals/ magazines/newspaper, 6(26.08%) got the information from family and friend.

Figure 11: Respondents' Knowledge regarding Kangaroo Mother Care

n=60

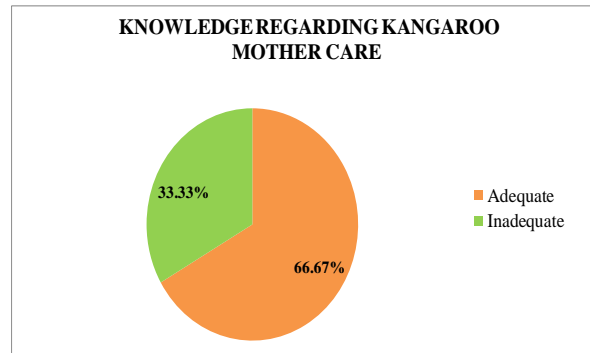


Figure 11 shows that, 40(66.67%) respondents have adequate knowledge and 20(33.33%) have inadequate knowledge regarding Kangaroo Mother Care.

Table 1: Association of Knowledge with Selected Socio Demographic Variables

n=60

Variables	Category	Knowledge		p-value
		Inadequate No. (%)	Adequate No.(%)	
Age	<25	17(28.33)	27(45)	2.073
	>25	3(5)	13(21.67)	
Occupation	Employed	4(6.67)	17(28.33)	2.9
	Unemployed	16(26.67)	23(38.33)	
Religion	Hindu	12(20)	22(36.67)	2.01
	Christian	3(5)	12(20)	
	Muslim	5(8.33)	6(10)	
Monthly income	Rs.>8,000/-	3(5)	18(30)	5.26
	Rs.<8,000/-	17(28.33)	22(36.67)	
Type of family	Nuclear	12(20)	19(31.67)	0.838
	Joint	8(13.33)	21(35)	
Place of living	Urban	9(15)	25(41.67)	1.62
	Rural	11(18.33)	15(25)	
Gravid	Primigravid	11(18.33)	23(38.33)	0.02*
	Multi gravid	9(15)	17(28.33)	

*Significant level is 0.05

Table 1 reveals that respondent's level of knowledge is statistically significant with gravid (p 0.02) and is not significant with type of family(p=0.838), place of living(p=1.62), religion(p=2.01), age(p=2.073), occupation(p=2.9), and monthly income (p=5.26).

IV. DISCUSSION

This study was carried out to assess the knowledge of antenatal mothers regarding kangaroo mother care. The results of this study revealed that most of the respondents i.e. 40(66.67%) mothers had adequate knowledge whereas in the study conducted by Nguah et al only 23 (11.4%, 95%CI: 7.4 to 16.6%) mothers knew about KMC which contradicts the present findings of the study.[9] This might be because of the respondent's education level and different study setting. From this study, it is found that there is a significant association of knowledge of KMC with gravid status of mother.



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Most of the researchers have taken postnatal mothers and nursing staff as their samples.

Antenatal mothers were considered in this study and brief description regarding KMC was done to respondents after collecting the data so that, they would have prior knowledge regarding KMC and it would be easier to follow instruction in their postnatal period.

The findings of the study show that not all the respondents adequate knowledge. For the increment of their knowledge, more awareness program and experimental studies can be carried out. Also, various teaching learning methods and program can be organized regarding KMC to prevent further deaths of babies that have been contributed by LBW.

V. CONCLUSION

There was statistically high positive correlation between knowledge of antenatal mothers and their associated demographic variables. Chi-square analysis was used to find out the association of knowledge of mothers and their demographic variables. Results showed that there was significant association of knowledge with socio-demographic variables like education, monthly income and previous knowledge on kangaroo mother care (KMC). Caring low birth weight baby is a great challenge for the neonatal care unit and the family. Number of low birth baby is still far beyond the expected target in our country. The cost of quality management of these babies is increasing day by day. KMC is a low cost approach for the care of low birth weight babies.

VI. ACKNOWLEDGEMENT

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