Research Article

Knowledge, Attitude and Practice of Mothers about Perinatal Care

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Abstract

Background: Infant Mortality Rate (IMR), the most sensitive indicator of health is reflected by female literacy, health education and nutrition of mother and infant. The present study is aimed to assess the Knowledge, Attitude and Practice of mothers regarding perinatal care, nutrition in pregnancy, place and method of delivery, breast feeding, prelacteal feeds, care of newborn, vaccination and red flag signs in newborn. **Methods:** The study was conducted to determine the Knowledge, Attitude, Practices amongst mothers (250 families), regarding perinatal care and to study the effect of health education. A pretested questionnaire was adopted after a short pilot study. Proportions were calculated for all observations and Z-test was applied for comparison between observations. **Results:** The majority of the respondents had correct knowledge regarding antenatal care, hospital delivery (88%), selection of clean place for delivery, delivery to be conducted by doctors, nurses or trained birth attendants (97.2%), cord cutting (83.6%), cord care(52.4%), rooming in (88%), hypothermia prevention (72.4%) and physiological jaundice of newborn (81.2%). Most had incorrect knowledge regarding type of diet and time of initiation of nutritious diet after delivery, infant feeding in relation to initiation of first feed (58%), colostrum being beneficial and giving prelacteal feeds (52.4%), kajal application (68.4%) and oil instillation in ears (72%). **Conclusions:** Successful maternal and child health depends largely on perinatal care viz. pregnancy, antenatal care, nutrition, spacing between pregnancies, basic hygiene, domiciliary delivery, care of the newborn and prevention from infection. Thus, health education regarding perinatal care is important for both mother and child.

Keywords: Knowledge, Attitude and Practice (KAP), Maternal/ Mothers, Perinatal

Introduction

In any country, the women and children constitute the priority group. In India, reproductive age women (15-44 years) constitute 19% and children below 15 years constitute 40% of the total population, constituting nearly 59% of the total population [1]. Discriminatory childcare goes through childhood to adolescence, leading to effects of health from the women to her children. Early child bearing gives risk to health viz. malnutrition, frequent pregnancies, unsafe abortions, Reproductive tract infections, Urinary tract infections, keeping MMR in India amongst highest globally[2]. Illiteracy is the greatest barrier to any improvement in health status of a country. Infant Mortality Rate (IMR), most sensitive indicator of health and level of living is reflected by female illiteracy, neglect of health and nutrition of mother and infant, improper health education.

Present study was conducted to determine the knowledge, attitude and practice of mothers regarding domiciliary perinatal care viz.antenatal care, nutrition in pregnancy, place and method of delivery, breast feeding (time, duration and technique), prelacteal feeds, care of newborn, vaccination in newborn and symptoms and signs when medical advice is necessary. Thus, to assess influence of maternal factors in perinatal care, identify lacunae and suggest modifications in policy making in achieving the millennium development goal.

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Materials and Methods

The study was conducted in Sagar over a period of 1 year from January 2012 to December 2012.The study was conducted in Pediatric Department, Bundelkhand Medical College, Sagar. 250 families were enrolled. Mothers were interviewed for information regarding knowledge, attitude and practice in perinatal care, with special reference to health education, antenatal checkups, diet in pregnancy, place of delivery and care and nutrition of newborn. Questionnaire technique was adopted to collect information in a predesigned proforma. Each

question was explained and clarified by investigators for comprehension. Pilot study was done initially and proforma was accordingly modified. Information thus collected was statistically analysed. Proportions were calculated for all observations. Z-test was applied for comparison between proportions.

Results & Observations

Table 1: KAP of Mothers for Antenatal Care

Question	Correct Response	Incorrect Response	X^2/Z Value	Significance
(a) Antenatal checkup- Correct : regular Incorrect: SOS/No need	169 (67.60%)	81 (32.40%)	Z=5.69	P<0.0001 ***
(b) Vaccination for tetanus Correct : complete Incorrect: none/ incomplete	155 (62%)	95 (38%)	Z=3.79	P<0.001 ***
(c) Iron supplementation- Correct - Yes Incorrect – No	209 (83.60%)	41 (16.40%)	Z=10.86	P<0.0001 ***
(d) Diet during pregnancy- Correct - Yes Incorrect – No	198 (76.8)%	52 (23.2%)	Z=8.78	P<0.0001 ***

NS-Not Significant;* Significant***Highly Significant

Highly significant number of mothers gave correct answers for Knowledge, Attitude and practice (KAP) for Antenatal care, like ANC Visits, Tetanus Toxoid immunization, Iron Folic Acid Tablets, Nutrition during ANC period.

Table 2: KAP of Mother Related To Feeding

Question	Correct Response	Incorrect Response	X^2/Z Value	Significance
(a) Initiation of breast feeding Correct : <6hours Incorrect : >6hours	103 (41.2%)	147 (58.8%)	Z=0.78	P>0.05 NS
(b) Colostrum Correct : Yes Incorrect : No	121 (48.4%)	129 (51.6%)	Z=0.51	P>0.05 NS
(c) Prelacteal Feed Correct : NO Incorrect : Yes	119 (47.6%)	131 (52.4%)	Z=0.76	P>0.05 NS
(d) Frequency of breast feeding Correct : Demand Incorrect: Scheduled	15 (6%)	235 (94%)	Z=13.91	P<0.0001 ***
(e) Breast Milk during maternal illness Correct : yes Incorrect: No	191 (76.4%)	59 (23.6%)	Z=8.34	P<0.0001 ***
(f) Technique of breast feeding Correct : Yes Incorrect : No	110 (44%)	140 (56%)	Z=1.89	P>0.05 NS
(g)Exclusive breast feeding Correct : Yes Incorrect : No	45 (18%)	205 (82%)	Z=10.12	P<0.0001 ***
(h) Burping after feed Correct : Yes Incorrect : No	113 (45.2%)	137 (54.8%)	Z=1.52	P>0.05 NS

NS-Not Significant;* Significant***Highly Significant

On an average, 50% mothers had incorrect knowledge regarding initiation of breast feeding, colostrum and prelacteal feeds. Regarding technique of breast feeding 56% of mother did not know correct breast feeding technique. 82% of mother did not have correct KAP regarding exclusive breast feeding. Statistically, it is found to be highly significant (P<0.0001). Only 45.2% of mothers were aware about burping after feed.

Majority of mothers (88%) had correct knowledge to keep the baby along with the mother (Rooming in), which is highly significant. (P<0.0001).84.4% of mothers had correct KAP regarding room environment during cold season to keep room warm and closed for mother and baby.

Table 3: Mother's KAP Regarding Top Milk

Question	Correct Response	Incorrect Inresponse	X^2/Z Value	Sig.
(a)Top milks by Correct : Katori- chammach Incorrect : Bottle, cotton wick	153 (61.2%)	97 (38.8%)	Z=3.54	P<0.05 *
(b) Top milk dilution Correct : Undiluted Incorrect: Diluted	41 (16.4%)	209 (83.6%)	Z=10.63	P<0.0001 ***

In case of insufficient lactation 61.2 % of mothers preferred giving top milk by katori, chammach and 38.8% preferred bottle, feeding. 83.6% of mothers preferred diluted milk for feeding the new born.

Table 4: KAP of Mothers Regarding Hypothermia

Question	Correct Response	Incorrect Response	X^2/Z Value	Sig.
(a) Type of cloths during winter Correct : Woolen cap and socks Incorrect : Covered by a sheet	181 (72.4%)	69 (27.6%)	Z=7.08	P<0.0001 ***
(b) In Hypothermia Correct : warm and keep the baby dry Incorrect: Nothing to be done	198 (79.2%)	52 (20.8%)	Z=2.78	P<0.05 *

Dressing up of new born for prevention from cold environment, 72.4% of mothers had correct KAP. In case baby became cold (hypothermia) majority of mothers (79.2%) had some knowledge to correct it by proper clothing.

Table 5: KAP of Mothers regarding child rearing

Question	Correct Response	Incorrect Inresponse	X^2/Z Value	Sig.
(a) Application of Kajal Correct : No Incorrect : Yes	79 (31.6%)	171 (68.4%)	Z=5.82	P<0.0001 ***
(b) Instilling oil in the ears Correct : NO In correct : Yes	69 (27.6%)	181 (72.4%)	Z=7.08	P<0.0001 ***
(c) Hand cleaning after removing soiled napkins. Correct : By soap/by ash Incorrect : By water/no need	203 (81.2%)	47 (18.8%)	Z=9.87	P<0.0001 ***
(d) Pacifier Correct : No Incorrect : yes	200 (80%)	50 (20%)	Z=9.48	P<0.0001 ***

It is evident that almost 68.4% of mothers practiced application of Kajal. It is highly significant. P<0.0001.
72.4% mothers had been instilling oil in ear against only 27.6% of mother who did not practice it. Majority of mothers (81.2%) had correct KAP towards hygiene. Majority of mothers (80%) did not practice giving pacifier while 20% of still practiced giving pacifier to the baby.

81.2% mothers had correct KAP regarding physiologic jaundice of new born; to consult a doctor; whereas 18.8% practiced jhar-phook and omission of breast feeding.

Discussion

Knowledge, Attitude and practice (KAP) of mothers have a direct impact on the ultimate outcome of the child. Hence it is helpful in evaluating outcome of health education. Knowledge depends on various factors viz. literacy, health providers and health education. Health education is brought by various ways viz. literacy, elderly person of family, husband, prominent person of area, health providers, media and doctors. Health education not only helps to create demand of health care services, but also ensures full utilization of services and is instrumental in implementing health programmes. As per Khalil [3], mothers mainly obtained information on breast feeding from doctors and television.

Observations of present study conclude that majority of the mothers were Hindus, <40 years, only 56.4% mothers were illiterate, majority were educated up to middle school, 64.8% mothers lived in joint family and majority of families had more than 2 children. These had no correlation with educational status of mother. This could be due to dominance of elderly lady of joint family or mother in law. 30% of women were employed and 14%were skilled workers.

Antenatal care (ANC) is the care of the women during pregnancy with the aim is to promote, protect and maintain a healthy mother and healthy baby. It helps to detect high risk cases, prevent complications, teach mothers about child care, nutrition, personal hygiene and motivate the mother for family planning and thus, reduce Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR). Good KAP regarding antenatal care could be due to regular counseling of mothers by medical college faculty and 1/3rd women being employed took good care so as to resume duties soon. Mittal [4] mentioned 67.35 percent received domiciliary care and 57.55% from indigenous dais.

Frequent multiple pregnancies without proper spacing drains energy and conception without recovery results in birth of low birth weight babies, both responsible for high MMR and NMR. 88% of mothers had good knowledge of spacing. 52% had awareness of adverse effects of frequent pregnancies. However, mothers were not allowed to take self decisions. Conde-Agudelo A [5], observed that long interpregnancy intervals, possibly longer than 5 years, are independently associated with an increased risk of preeclampsia and labor dystocia and short intervals with increased risk of uterine rupture and uteroplacental bleeding disorders (placental abruption and placenta previa).

Initiation of full nutritious diet helps mother recover from labor stress and aids in lactation of newborn. 71.6% had incorrect Knowledge, Attitude and Practice (KAP) regarding diet in postnatal period, highly significant statistically (p<0.001). 28.4% had knowledge and practiced right type of diet. Sociocultural rituals chhati, chouk, food taboos, superstitions, illiteracy and lack of mother's decision making power attributed to it. As per Mittal [4], special food and indigenous meal were given to mothers after delivery but not normal meals. Wermuth [6], in 2003 reported that in India, anaemia in pregnant women is related to numerous micro nutrient deficiencies in infant; it is associated with low birth weight and array of developmental risk for the child, in severe cases it can lead to both maternal and infant death.

88% of mothers delivered in hospitals, which was statistically highly significant (p<0.001). In case of deliveries at home, statistically highly significant number (p<0.001) had correct KAP for selecting clean space of house for delivery. 97.2 %(p<0.001%) of mothers want delivery to be conducted by doctor/nurse. 83.6% had correct KAP regarding cutting of umbilical cord and 52.4% had correct knowledge of care of umbilical cord. Maternal mortality in resource-poor nations has been attributed to the "3 delays" [7],: delay in deciding to seek care, delay in reaching care in time, and delay in receiving adequate treatment. The first delay is on the part of the mother, family, or community not recognizing a life-threatening condition; the second delay is in reaching a health-care facility, and may be due to road conditions, lack of transportation, or location and the third delay occurs at the healthcare facility.

Learning by observation by girl children reinforced by media and organizations like BFHI, BPNI, FOGSI,

NGOs from time to time educate mothers regarding breast feeding. As in Table 2, present study reveals that initiation of breastfeeding after birth was incorrect in 58.8% of mothers. Mudgal [8] et al in tribal women observed that 85.5% initiated breast feeding within 6 hours of birth, while Ira Pant [9] et al reported 83% of mothers initiated breast feeding in 3 days of birth, while 50% started feeding on the first day. 52% believed colostrum as harmful and discarded it. Wickes[10] , reported colostrum as thought to be thick, cheesy and difficult to digest and traditionally rejected by 40% mothers. 52% women gave preacteal feeds to baby as honey, glucose water and diluted milk for 3-7 days. Bhandari[11] reported that 84.4% received some form of feed, ghutti (36.8%) and honey(25.6%) being commonest, Mohapatra[12] observed honey(20%), water(12.35%) and herbal juice(6.47%) being given as prelacteal feeds. 94% mothers practiced demand feeds, while Saxena[13] reported all low education group mothers used to practice demand feeding. 23.6% mothers believed discontinuing feeds during maternal illness.

Sociocultural beliefs and taboos are still prevalent in study population and it was our endeavor to uproot them totally by higher education. In case of insufficient lactation, 61.2% mothers preferred top animal milk and 83% feed diluted milk to baby. 58% of mothers are unaware of correct feeding technique. The factors like rooming in, feeding initiation, bathing and temperature control influence the health of baby. Observations revealed that mothers had correct KAP for rooming in and warm environment for baby and mother and clothing of newborn. Large numbers of mothers (55.5%) were unaware of harmful effects of giving first bath and subsequent bathing of baby. Mohapatra [12] observed that all people in Orissa believed that baby needs as many baths daily as number of Epstein's pearls on the hard palate. 68.3% of mothers practiced kajal application and 72% mothers instilled oil in ears of baby.

Physiological jaundice occurs in 65% of newborns. As abovementioned, 81% of mothers had correct KAP regarding physiological jaundice. Probably mothers had been counseled during stay in hospital by doctors effectively for this entity.

National programmes for Vaccine Preventable Diseases (VPDs) have educated the masses.71.6% women followed National Immunisation Schedule for vaccinating babies. 10% were unaware of National Immunisation Schedule. Malini Kar [14] et al showed lack of information as major cause of non immunization followed by lack of motivation. 36.4% women take reaction for vaccination as normal. This could be the reason for fallout from vaccination.63% women considered doctors consultation in case baby failed to grow properly. Rest continued home remedies. Overall KAP of mothers during perinatal period was encouraging.

Lack of confidence of mothers about newborn care makes her amenable to suggestions from mother in law or prominent lady of family.

Conclusion

Statistically highly significant number of mothers had correct knowledge and attitude for antenatal care but incorrect KAP regarding type of diet and time of initiation of nutritious post delivery. Hence, nutrition needs to be improved as it affects maternal morbidity and mortality. 58% women had incorrect KAP for infant feeding, 52.4% considered colostrum to be harmful and on suspicion of insufficient milk; some top feed was given along with breast milk in 61.2% women. Statistically significant number of mothers did not know about exclusive breast feeding in the true sense. Hence, breast feeding and breast milk should be emphasized to the masses in the language they understand. 88% mothers practiced rooming in and knew about temperature maintenance of newborn. 68.4% practiced kajal application, 72% instilled oil in the ears. 81.2% had correct KAP regarding physiological jaundice of newborn. Statistically highly significant number of mothers was aware of national immunization programme, but few considered reaction after vaccination as normal phenomenon. Lack of information was the major cause of non immunization; hence information needs to be imparted regarding immunization.

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