MAK HILL Publications Research Journal of Medical Sciences

Research Article
doi: 10.59218/makrjms.2024.3.164.168

A Study of Assessment of the Knowledge Attitude and Practices of Mothers Regarding Child Health Care in the Age Group of 6 Months to 2 Years Who had Received Mother and Child Protection Card in Antenatal Period

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ABSTRACT

The UN General Assembly's Sustainable Development Goals demand that newborns and children under five years old no longer die avoidably. The 2030 targets for SDG child survival seek to have a U5MR of 25 or fewer deaths per 1000 live births (SDG target 3.2.1) and a newborn mortality rate (NMR) of 12 or fewer deaths per 1000 live births (SDG target 3.2.2) for all countries. The purpose of this study is to evaluate the knowledge, attitudes and practices of mothers of children admitted to a pediatric ward between the ages of six months and two years. These women must have acquired a Mamta card during their prenatal period and possess sufficient literacy to read and comprehend Gujarati. In our study, 12 (13.0%) patients no visited, 54 (57.0%) patients visited 1-3 times and 29 (30.0%) patients visited more than 3 times. The value of z is 6.3995. The value of p<0001. The result is significant at p<.05. In our study, 71 (46.0%) patients no visited, 70 (45.0%) patients visited 1-3 times and 14 (9.0%) patients visited more than 3 times. The value of z is 7.257. The value of p<.00001. The result is significant at p<.05. In our study, 82 (86.0%) patients were completely immunized and 13 (14.0%) patients were incompletely immunized. The value of z is 10.0116. The value of p<.00001. The result is significant at p<.05. The government makes commendable efforts to give our parents and kids the best care possible but there are a number of obstacles that prevent the information on the MCP card from being delivered. These include low socioeconomic status, mother's lack of education and their disinterest in using the card to guide their child's care. Additionally, the influence of HBNC and HBYC visits on changing child care practices is also limited. The MCP card is a goldmine of information but its ability to significantly alter child care practices has been restricted.

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Key Words

Maternal health education, child health awareness, antenatal care impact, parental practices and early childhood development

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Received: 20 November 2023
Accepted: 30 December 2023
Published: 4 January 2024

Citation: Shreyaskumar Laxmanbhai Patel, Gautam V. Shah and Parmar, 2024. A Study of Assessment of the Knowledge, Attitude and Practices of Mothers Regarding Child Health Care in the Age Group of 6 Months to 2 Years Who had Received Mother and Child Protection Card in Antenatal Period. Res. J. Med. Sci., 18: 164-168, doi: 10.59218/makrjms.2024.3.164.168

INTRODUCTION

The UN General Assembly's Sustainable Development Goals demand an end to newborn and under-5 child fatalities that may be prevented. According to the SDG child survival targets, by 2030, all nations should have a neonatal mortality rate (NMR) of 12 or fewer deaths per 1000 live births and a U5MR of 25 or less deaths per 1000 live births (SDG target 3.2.2)[1] .

The Neonatal Mortality Rate (NNMR), Infant Mortality Rate (IMR) and Under-five Mortality Rate (U5MR) for Gujarat are 21.8, 31.2 and 37.6 correspondingly, according to NFHS-5 (2019-21), compared to the national average of 24.9, 35.2 and 41.9 percent. In Gujarat, the percentage of under-five children who are stunted, wasted, severely wasted, and underweight is 39.7, 25.1, 10.6 and 39.7%, respectively, compared to the national average of 35.5, 19.3, 7.7 and 32.1 percent[2].

The objectives outlined in the SDGs and current statistics diverge significantly, as can be seen above. The Indian government has created numerous initiatives with the aim of achieving these objectives. In Gujarat, 30.8 percent of women in the 15-45 age range have ever used the internet, and 73.5 percent of these women are literate. The card for protecting mothers and children. The MCP card is a communication tool designed by the National Institute for Public Co-operation and Child Development (NIPCCD), in partnership with the Department of Women and Child Development (DWCD) and UNICEF, to enhance service delivery through linked schemes[3]. The MCP Card is an entitlement card for maternity and child care, a tool for family empowerment and counseling and it guarantees the tracking of the mother and child cohort for development, nutrition, and health reasons. The card is intended for use by the following ANM/AWW/ASHA, Health and ICDS Supervisors, community influencers (such as Village Groups, VHSNC, Women's Group and PRI Members), family members (mothers, fathers mother and father-in-law, teenage girls, etc.)[4].

The Mamta Card is the name for the Mother and Child Protection card in Gujarat. In order to promote excellent health for expectant moms, new mothers, and their children, the Mamta Card was created as a tool for families to learn, comprehend and adhere to[5] Since 2005, Gujarat has started utilizing Mamta Cards. The card offers advice and images on safe pregnancy practices, warning indications, home birth, caring for a baby and breastfeeding, specific vaccination information, child growth, illness, feeding, psychosocial support, and developmental milestones. Families can use it as a tool to adopt healthy habits that promote the health of mothers and children, as well as to learn about, comprehend and track their child's growth during the first three years of life.

Additionally, all newborns participating in Home Based New Born Care (HBNC) and Home-based Care of Young Children (HBYC) receive 6-7 home visits from ASHA workers during the first 42 days of their lives. After that, the visits occur every three months until the child is 15 months old. During these visits, important information is reinforced regarding topics such as breastfeeding, hypothermia, supplemental feeding, immunization, use of the MCP card for growth and development monitoring, use of ORS and IFA, age-appropriate play, communication and sanitation[6].

In summary, a woman sees health professionals several times over the first two years of the baby's life, starting with at least four prenatal visits. Additionally, a literate woman who registers during her pregnancy and receives a Mamta card early on has plenty of opportunity to learn clear and concise messaging about typical concerns pertaining to the health care of small children. Does this result in the youngster receiving better information and using better health care practices? When mothers have questions about common issues like what to do with a newborn that shows warning signs, how to breastfeed, when to supplement, when to vaccinate, how to manage common health problems like diarrhea and what government programs are available for improving the health of mothers and children, do they consult the Mamta card?

Consequently, this study was conducted using a standard questionnaire in order to ascertain the knowledge, attitude and practices of mothers of children between the ages of six months and two years who are literate enough to read and comprehend the Mamta card in Gujarati and may also have received counseling from health workers. The Mamta card contains all of the answers to the questions, which were designed in a way that makes them easy for the average person to understand.

METHODOLOGY AND SUBJECT TO STUDY

Research design: Cross-sectional study.

Study setting: The study was carried out in the department of paediatrics, GMERS Medical College, Gotri, Vadodara for a period of nine months. (May 2022 to February 2023) or till a sample size of 250 is achieved.

Inclusion criteria: Those mothers whose children in the age group 6 completed months (180 days) to 2 years have been admitted to the paediatric ward due to any

medical illness of the child were interviewed provided the mother is literate enough to read and understand Gujarati and was registered in the antenatal period and had received Mamta card. The rationale for selecting this age group was to minimise recall bias and also for mothers to have had enough learning opportunities. The questionnaire would be delivered to the mother once the condition of the child was stable and improving so that the mother was not apprehensive and was in a sane state of mind

Exclusion criteria:

- Those mothers whose children were admitted to PICU and NICU
- Those mothers were not willing to participate in the study or give consent

Sampling method and sample size:

Sample method: Assuming that 30% of the subjects in the population have a prevalence of interest, the study would require a sample size of 234 for estimating the expected proportion with 6% absolute precision and 95% confidence. In other words, if we select a random sample of 234 from a population and determine that 30% of subjects have the factor of interest, you would be 95% confident that between 24-36% of subjects in the population have the factor of interest[7]. An absolute allowable error of 20% has been taken:

- Sample size (n) = 4 *p*q Where, n= required sample size
- (L) 2 p = prevalence of interest
- Or proportion
- q = 100-p
- L = allowable error

Sample size: Total 250 number of women were enrolled during the study period The sampling was done by simple random sampling.

Data collection method: Data was collected by a standard proforma containing a questionnaire consisting of 30 questions. The questions selected are such that it is easy for a layman to understand. Each correct answer will be given 1 mark and the wrong will be given 0 mark. Marks 15 or more out of 30 shall be considered a pass. Out of the total sample size, results shall be classified as fail (14 or less), pass (15 or more) and excellent (21 or more). The results were compiled in MS Excel format and Epi Info software. Also, the reasons for ignorance were extracted from each mother and compiled.

RESULTS

In our study, 12 (13.0%) patients no visited, 54 (57.0%) patients visited 1-3 times and 29 (30.0%) patients visited more than 3 times. The value of z is 6.3995. The value of p<.00001. The result is significant at p<.05. In our study, 71 (46.0%) patients no visited, 70 (45.0%) patients visited 1 to 3 times and 14 (9.0%) patients visited more than 3 times. The value of z is 7.257. The p<.00001. The result is significant at p<.05.

In our study, 196 (78.0%) patients were completely immunized and 54 (22.0%) patients were incompletely immunized. The value of z is 12.7009. The p<.00001. The result is significant at p<.05. In our study, 82 (86.0%) patients were completely immunized and 13 (14.0%) patients were incompletely immunized. The value of z is 10.0116. The p<.00001. The result is significant at p<.05. In our study, 114 (74.0%) patients were completely immunized and 41 (26.0%) patients were incompletely immunized. The value of z is 8.2922. The p<.00001. The result is significant at p<.05. In our study, 234 (94.0%) patients had Institutional delivery and 16 (6.0%) patients had Home delivery.

The value of z is 19.4985. The value of p is<.00001. The result is significant at p<.05.

Table 1: HBNC/HBYC visit received by pass participants

HBNC/HBYC visits	HBNC/HBYC visits attended by participants considered pass (out of 95)
0 visits	12(13%)
1-3 visits	54(57%)
more than 3 visits	29(30%)

Table 2: HBNC/HBYC visit attended by failed participants

HBNC/HBYC visits	HBNC/HBYC visits attended by failed participants (out of 155)
0 visits	71(46%)
1-3 visits	70(45%)
more than 3 visits	14(9%)

Table 3: Age-related immunization status of a child of all participating mother

Immunization	Immunization status of a child of all mothers (out of 250)
Completely immunized	196(78%)
Incompletely immunized	54(22%)

Table 4: Age-related immunization status of child of pass mother

Immunization	Immunization status of a child of mothers who considered as a pass (out of 95)
Completely immunized	82(86%)
Incompletely immunized	13(14%)

Table 5: Age-related immunization status of the child of the failed mother

Immunization	Immunization status of children of mothers who
were considered as a failed (out of 155)	
completely immunized	114(74%)
incompletely immunized	41(26%)

Table 6: Distribution of institutional delivery according to total participants

Place of delivery	No. of participants (out of 250)
Institutional delivery	234(94%)
Home delivery	16(6%)

DISCUSSIONS

In our study we participated a total of 250 mothers, out of them only 95 (38%) mothers got a score >14 considered a pass of those 9% of participants scored 21 or more considered excellent, rest 155 (62%) scored <15 considered as failed. Of those who have failed in the study, while analysing it is found that the reason behind the low score is:

- 46% of mothers of the failed group had not received any counselling from an ASHA worker during HBNC and HBYC
- Mother didn't get any knowledge regarding newborn care during the hospital stay
- Mothers had a poor education
- They were not motivated to refer to their manta card for child care

Neonatal care: As we saw previously in our review of literature under the National Health Policy, 2017 our target is to Reduce Neonatal Mortality to 16 by 2025 so to achieve this goal, neonatal care is included in an updated MCP card to guide mothers and during HBNC visits. In our study, while asking the mothers about Kangaroo Mother Care it is found that only 34% of mothers knew about Kangaroo Mother Care even though it was well written in the Mamata card.

As we know Umbilical cord should be kept dry, which is crucial to prevent infection that is well written in the Mamta card, still from our study it was found that 28% of the mothers had applied something or the other on the baby's umbilical cord and when asked about its reason found out that there is no knowledge regarding care of umbilical cord or they were given wrong information by their elders or mother-in-law. Similarly, only 7% of the mothers were aware of the Janani Shishu Sukhara Yojana and free services offered by government programs for the benefit of neonates. Only 19% of mothers knew that the baby should not be a bath for the first seven days.

Vaccination: A recent NFHS 5 survey, it is found that 76% child got basic vaccination. In our study, it is found that 78% child of the total participant mother got age-appropriate complete immunization. While asking about the reasons behind incomplete immunization, the following were observed:

- They were not educated properly about vaccination and the vaccination schedule given on the MCP card or they have forgotten
- Some taboos or myths in society regarding vaccinations like the child would develop fever and swelling after vaccination
- Those people who live in remote areas where ASHA workers cannot reach and do not know anything about the importance of vaccination
- Some of them were migrating communities and unaware of places nearby where immunization is going on
- Some mothers did not go for immunization as they had lost their MCP card

It is also found that 76% of participants do not believe to give the next dose of vaccination if a child develops swelling during the previous vaccination. However, they believed that their child should be given vaccination even if they develop a fever. While asking the mothers about the number of immunizations given in the first year it was found that only 20% percentage of mothers had proper knowledge about the number of immunization visits in the first year of life. 65% of mothers do not know when the first vaccine was given to their child despite the child being given the vaccine as confirmed by the MCP card.

Breastfeeding and complementary feeding: We know that for the first six months of life, exclusive breastfeeding should be given and after six months complementary feeding should be initiated. In our study, we found that only 69% percentage of mothers believed in exclusive breastfeeding for six months. Only 52% of mothers believed that the complimentary feeds should be initiated from the seventh month. 37% of Mother has breastfed baby immediately after birth. Only 67% of mothers gave colostrum to their children. 33% of mothers were aware about the need to avoid pre-lacteals like honey and water.

Timely initiation of complementary feeding at 6 months is very important to keep the child healthy and prevent undernutrition and other complications. Only 48% of mothers give their baby complementary feed properly like khichdi daliya and had knowledge regarding complementary foods. The rest of the mothers were unaware of when and how to start a complementary feed. They never referred to Mamta card for information about complementary feeding nor was it conveyed during HBNC and HBYC visits.

Growth and development: Only 40% of mothers had knowledge about the usual age of acquisition of common childhood milestones. Only 33% of mothers knew about the growth chart that is given in the Mamta card and even then, only 18% of mothers had done or seen charting and plotting according to weight and age. 26% of patients were admitted with moderate and severe malnutrition and 12% were noted to have developmental delay.

Preventive care: The major causes of death for the age group of 0 to 4 years in India as per the SRS reports (2017-19) are Prematurity and low birth weight (31.2%), Pneumonia (17.5%), birth asphyxia (9.9%) and Diarrheal diseases (5.6%)[8]. In our study, we found that 9% of patients were admitted for acute gastroenteritis and 30% of patients were admitted for lower respiratory tract infections. In our study, it was found

that only 21% of mothers had proper knowledge regarding how to treat diarrhoea. 79% of mothers either had no knowledge or only limited knowledge about ors and zinc.

HBNC and HBYC visits: While analysing the data regarding the number of HBNC and HBYC visits received by the participants, it was found that only 9% of the participants in the failed group had received more than 3 visits while 30% of the participants in the pass group had received more than 3 visits.

Education status: While analysing about the mother's educational status, we found that 20% of mothers in the pass group were graduated and 29% of the mothers had passed higher secondary (11th to 12th standard) while the proportion in the fail group was only 1-24% respectively.

CONCLUSION

The government makes commendable efforts to give our parents and kids the best care possible but there are a number of obstacles that prevent the information on the MCP card from being delivered. These include low socioeconomic status, mother's lack of education and their disinterest in using the card to guide their child's care. Additionally, the influence of HBNC and HBYC visits on changing child care practices is also limited. The MCP card is a goldmine of information but its ability to significantly alter child care practices has been restricted.

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