Mother and child protection card as a resource tool for health care providers on VHND sessions: Providers’ views in rural area of Valsad district in south Gujarat, India

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Abstract

Background: The Mother and Child Protection card (MCP card) is used for tracking of each child right from conception till 3 years of age by community health workers. It is a rich source of information for HCPs about mother and child health. A well-versed health care provider (HCP) can deliver the services efficiently to the beneficiaries. Objectives: To assess knowledge of HCPs about information provided in the MCP card. Methodology: It was a descriptive cross-sectional study carried out in the rural area of Valsad. Nineteen HCPs were interviewed on VHND sessions for their knowledge about health information provided in MCP card. Results: Mean age of HCPs was 38.11 years with mean 9.3 years of work experience. Of these 94.7% were providing the MCP card while registering the beneficiary. Around 78.9% knew growth chart, 68.4% knew vaccination information and nearly half were aware about the various government schemes. About 36.84% could mention five cleans of safe delivery at home. Conclusion: HCPs were aware about vaccination, anteatal care, growth chart but their knowledge about five cleans of home delivery and postnatal care needs to be improved.

Keywords: Healthcare provider, Mamta card, MCP card, VHND session

Introduction

Interventions and tools designed to improve health and childcare have the common terminal goal of reducing infant and maternal mortality rates. The maternal mortality ratio and infant mortality rate of India is 113 and 30 per 1000 live births, respectively, according to SRS report. Both of them reflect scope of quality improvement in maternal and child health services.

The Mother and Child Protection card (MCP Card) can be used as a counselling tool, for tracking of mother and child, and educating them about health, nutrition and child development. It has the potential of creating awareness, facilitating community dialogue and increasing uptake of services by beneficiaries. The card is also used as an entitlement card for several schemes such as Kasturba Poshan Sahay Yojana, Home-based new-born care and Janani Suraksha Yojana.

The research on awareness of the MCP card among pregnant and lactating mothers concluded lack of effective use of the MCP card by beneficiaries and suggested advocacy by health care providers (HCP) to improve the knowledge of various

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health information provided in the card.\textsuperscript{[8]} For that HCPs must be well versed about the use of MCP card. The present study focuses on the awareness of HCPs about the MCP card and the information provided therein. It checks the knowledge of auxiliary nurse midwife (ANM), anganwadi worker (AWW), and accredited social health activist (ASHA) workers and is an attempt to build the capacity of these HCPs in effective delivery of the health care services to the community. The findings of this study can help the district training team to focus on knowledge deficit areas and strengthen the primary health care team.

Methodology

It was a descriptive cross-sectional study carried out at the field practice area of the community medicine department of Gujarat Medical and Education Research Society (GMERS) Medical College Valsad. The data collection was done on village health and nutrition day (VHND) session sites from March 2018 to May 2018. We attended 8 VHND sessions of different subcentres and collected data from 19 HCPs using purposive non probability sampling method.

After taking their informed verbal consent, a pretested, semistructured questionnaire was administered for assessing their knowledge about the MCP card. Their knowledge was checked by asking open-ended questions about the information provided in the card like antenatal care, postnatal care, government schemes, growth charts, vaccination of children, and other health educational details and their responses were recorded.

Microsoft Office Excel was used for data entry and analysis. This being a descriptive study it reports actual numbers and proportions in the form of percentages of the study variables. Prior permission of the institutional review and ethical committee was taken. The responses were categorized as correct if the HCP described all necessary details provided in the MCP card and partially correct if they could answer more than half of the information given in the card.

Results

We interviewed 19 HCPs on VHND session, 6 ANM workers, 6 anganwadi workers, and 7 ASHA workers. Mean age of them was 38.11 years with mean 9.3 years of work experience.

All were having MCP card in stock at the time of interview ($n = 19$). Majority (94.7%, 18) of them were providing the MCP card to the beneficiary on registration of pregnancy. All of them could enlist minimum two uses of MCP card ($n = 19$). The awareness of HCPs regarding use of MCP card as a tool of vaccination record and health and nutrition education, and available services is shown in Figure 1.

The HCPs were asked to elaborate mother and child care related information provided in the MCP card. Their knowledge about vaccination, growth chart, complementary feeding, and care during pregnancy is mentioned in Table 1. Nearly half of them were aware about Janani Shishu Suraksha Karyakaram (JSSK), Mission Balam Sukham, and messages of personal cleanliness provided in the MCP card.

All of them were aware about the method of making oral rehydration salts (ORS) solution using ORS sachets available with them, but four of them (21.1%) had no idea of alternative fluids in the absence of ORS sachets.

The knowledge regarding conditions indicating immediate referral of antenatal mothers is shown in Figure 2.

Out of 19, 7 of them (36.84%) could mention 5 cleans of safe delivery at home. The responses for individual component of five cleans are depicted in Figure 3. The HCPs should do home visits on day 1, 3, 7 and 42 after delivery. In this study, 7 (36.8%) HCPs could respond the schedule correctly.

Majority of the HCPs were able to enlist certain danger signs in newborn for which referral is required, its proportion is depicted in Table 2.

Discussion

We interviewed 19 HCPs working at grass-root level on village health and nutrition day. All HCPs were having a stock of MCP card in our study. In this study, 94.7% of HCPs regarded MCP card as a vaccination record of baby, 84.2% used it to educate the beneficiary about different government services, and about pregnancy and child care. National Institute of Public Co-operation and Child Development reported that 95.8% of ANM and AWWs were aware about the MCP card.\textsuperscript{[9]} Regarding use of MCP card 83.8% of the responses were for antenatal visits, 96.2% were for growth monitoring and immunization, while 25.7% were for home visit in the study by Melwani et al.\textsuperscript{[9]}

The danger signs during pregnancy, delivery, and post-delivery period indicate some form of obstetric complications that may threaten the life of the pregnant lady and/or her baby. Knowledge of such danger signs will help the HCPs to refer the beneficiary timely and for a better management of the condition.

In present study, HCPs knew the danger signs during pregnancy that require immediate referral: bleeding from vagina (89.5%),

![Figure 1: Awareness about usefulness of MCP Card among HCPs ($n = 19$)](image-url)
In our study, more than two-thirds of the HCPs knew referral signs of pregnancy. This is consistent with the report of New Delhi[3] and study of Kumar et al[9], where less number of front line workers (FLWs) knew danger signs during pregnancy (53.1% and 66.8%, before and after training, respectively) and Melwani et al[10]; only 17.1% of HCWs were aware about the danger signs in pregnancy.

Faulty complementary feeding practices are a major contributing factor to infant and young child malnutrition, growth failure, and high morbidity and mortality.[10] World Health Organization (WHO) and United Nations International Children’s Emergency Fund (UNICEF) recommended initiation of complementary feeding after 6 months of exclusive breast feeding[11]. In our present study, 57.9% of HCPs knew the complementary feeding guidelines correctly which is supported by a study reporting that 53.1% of FLWs knew the complementary guidelines.[10] Parikh and Sharma[15] reported that the knowledge of complementary feeding practices was quite low among AWWs (40%).

The nutritional status of the child is being assessed against weight-for-age using individual growth charts that separate for girls and boys. It enables parents, communities, and child care providers to detect early faltering of growth and to take timely corrective measures.[8] In our study, 78.9% of HCPs could demonstrate the method of using growth chart correctly in MCP card. This proportion was higher in a report of New Delhi (84%) and in a study by Kumar et al. (89.5%).[12] Correct plotting of weight and interpretations of the growth charts were known to 94% of the AWWs and only 69% of the ANMs, in a study by Barua et al.[13]

Under the Universal Immunization Programme (UIP), vaccination is provided to under five children, adolescents, and mothers to prevent the vaccine preventable diseases. New vaccines are added to broaden the basket of UIP. In a current study 68.4% of respondents were aware about correct schedule, site, and route of administration of child vaccination. Melwani et al[8] and Ranjan et al[14] reported this knowledge to be 87.6%, 59.1%, respectively, among health functionaries.

We found that 36.84% HCPs could elaborate all components of five cleans to ensure safe home delivery, the lowest being for clean delivery place. Melwani et al[8] reported this knowledge to be

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**Figure 2:** Indications for immediate referral of pregnant mother during antenatal period (n = 19)

**Figure 3:** Care to be taken in the case of home delivery (n = 19)

**Table 1:** Knowledge of health care providers about different aspects of mother and child care (n=19)

| Component                                      | Response (%) |
|------------------------------------------------|--------------|
| Vaccination schedule, site and route           |              |
| Correct response                               | 13 (68.4%)   |
| Partially correct                              | 5 (26.3%)    |
| Did not know                                   | 1 (5.3%)     |
| Method of using the growth chart                |              |
| Correct response                               | 15 (78.9%)   |
| Partially correct                              | 3 (15.8%)    |
| Did not know                                   | 1 (5.3%)     |
| Complementary feeding recommendations up to 6 months |              |
| Correct response                               | 11 (57.9%)   |
| Partially correct                              | 7 (36.8%)    |
| Did not know                                   | 1 (5.3%)     |
| Care during pregnancy                          |              |
| Correct response                               | 14 (73.7%)   |
| Partially correct                              | 4 (21.1%)    |
| Did not know                                   | 1 (5.3%)     |
| Janani Shishu Suraksha Karyakram               |              |
| Correct response                               | 9 (47.4%)    |
| Partially correct                              | 6 (31.6%)    |
| Did not know                                   | 4 (21.0%)    |
| Mission Balam Sukham                           |              |
| Correct response                               | 5 (26.3%)    |
| Partially correct                              | 3 (15.8%)    |
| Did not know                                   | 2 (10.5%)    |
| Messages about personal cleanliness             |              |
| Correct response                               | 9 (47.4%)    |
| Partially correct                              | 1 (5.3%)     |

**Notes:**

- Persistence of labour pain for more than 12 h, watery discharge from vagina (73.3%), convulsions, and fever (52.6%). This finding is consistent with the report of New Delhi[3] and study of Kumar et al[9] at Ranchi, Jharkhand, while it differs from the report of Odisha,[10] where less number of front line workers (FLWs) knew danger signs during pregnancy (53.1% and 66.8%, before and after training, respectively) and Melwani et al[10]; only 17.1% of HCWs were aware about the danger signs in pregnancy.

- In our study, more than two-third of the HCPs knew referral signs of newborn. This is lower in a report from Odisha, where 87.6% reported this knowledge to be 87.6%, respectively, among health functionaries.
10.5% among study participants. We observed that seven (36.8%) HCPs could respond the schedule of postnatal home visits correctly. Half of the ANMs were aware about four postnatal visits in multicentric study of six states of India.[7]

Regarding the danger signs in newborn, the HCPs responded that fever with convulsions (84.2%), pustules on body (73.7%), feeding problem (73.7%), breathing difficulty (68.4%), and jaundice (68.4%) needs prompt referral. This is consistent with the findings of multicentric study of six states in India.[7] All AWW were aware about danger signs in newborn, a study of Kumar et al.[9] Awasthi et al.[13] reported 70.5% care givers did home visits in deliveries conducted by local untrained nurses or relatives. More than half of the caregivers recognized fever, irritability, weakness, abdominal distension/vomiting, slow breathing, and diarrhoea as danger signs in neonates in that study.

The good hygiene practices at the household level was suggested to check malnutrition in children in a report of Odisha state.[10]

In our study, 47.4% of the study participants could elaborate the messages for maintaining personal hygiene, such as hand hygiene, cough etiquette, etc., at home for prevention of various communicable diseases. This finding is similar to a study by Mahyavanshi et al.[8] showing 55% of ASHA workers had correct knowledge about hygienic practices for prevention of gastrointestinal and respiratory diseases.

de Melo E Lima[7] concluded that a four-day training course on methods of home visits to postnatal mothers and newborns has a sustained improvement of Community Health Workers KAP and ensures the retention of competencies and improves their performance.

The Government of India has launched Janani Shishu Suraksha Karyakram (JSSK) on 1 June, 2011. This scheme provides free services to pregnant women (for normal deliveries as well as caesarean sections) and sick new born (up to 30 days after birth) in Government health institutions.[16] Nearly half of the HCPs were aware about JSSK and Mission Balam Sukham in our study. Jadhav et al.[9] in Maharashtra concluded that 34.6% of female health workers had excellent knowledge about JSSK and training status had impact on their knowledge of JSSK.

In our study, majority of the HCPs were aware about the use of MCP card for vaccination of child, antenatal care, growth chart, and nutritional advice of mother and baby. Their knowledge needs to be improved about five cleans of home delivery, postnatal care of mother and baby, personal hygiene at home, and benefits of various government schemes. In-service induction and refresher trainings on MCP card may help in this regard. Pre-training knowledge level should be assessed and the knowledge deficit areas should be stressed aptly to improve the knowledge and skill of HCPs in provision of mother and child health services; hands-on training on MCP card may help in this regard.

The present study included health workers employed at subcentres of two primary health centers only, study with a large sample size is recommended to increase external validity of research findings.

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Conflicts of interest
There are no conflicts of interest.

References

1. Kalita G, Snowden H, Ghosh S. The effectiveness of the mother and child protection card as a community management tool: a case study. Knowledge Community on Children in India, UNICEF India. 2014; p12.
2. SRS Bulletin. Sample Registration System. Office of the Registrar General, India. May 2020. 53:1-9. Available from: https://censusindia.gov.in/vital_statistics/SRS_Bulletins/Bulletins.html. [Last accessed on 2020 Aug 20].
3. Special bulletin on Maternal Mortality in India 2016‑18. Sample Registration System. Office of the Registrar General, India. July 2020. Available from: https://censusindia.gov.in/vital_statistics/SRS_Bulletins/MMR_Bulletin_2016‑18.pdf. [Last accessed on 2020 Aug 20].
4. Guidebook for mother-child protection card. 2018. Ministry of Health and Family Welfare. Ministry of Women and Child development. India. Available from: https://nhm.gov.in/New_Updates_2018/NHM_Components/Immunization/Guidelines_for_immunization/MCP_Guide_Book.pdf. [Last accessed on 2020 Aug 18].
5. Government Of India. Potential Good Practices: The ICDS Experience. 2013. Available from: https://icds-wcd.nic.in/Best%20Practices.pdf. [Last accessed on 2021 Aug 20].
6. Bariya BR, Patel MG, Mahyavanshi DK, Nayak S. Use of Mamta card by pregnant and lactating mothers attending village health and nutrition days in rural area of Valsad, Gujarat. Natl J Community Med 2019;10:337‑41.
7. National Institute of Public Cooperation and Child Development. Evaluation of Usage of Mother and Child Protection Card by ICDS and Health Functionaries National Institute of Public Cooperation and Child Development New Delhi. 2014. Available from: https://www.nipccd.nic. in/file/reports/mcpc.pdf. [Last accessed on 2021 Aug 20].
8. Melwani V, Toppo M, Khan A. Evaluation of knowledge and awareness regarding usage of mcp card amongst health functionaries and beneficiaries. Indian J Community Family Med 2019;5:123‑8.
9. Kumar M, Shikha S, Kashyap V. Assessment of knowledge and skill of sahiyya (ASHA) and anganwadi worker on appropriate usage of mother and child protection card in Ranchi, Jharkhand: A cross sectional study. Int J Community Med Public Health 2018;5:5316-20.

10. Technical Management Support Team, Department of women and child development, Government of odisha. Impact evaluation of 1000 days training to assess the skills and knowledge of frontline providers (ASHA, AWW and ANM) and Supervisors for better training and use of data to improve service provision across Health and Nutrition. 2015 March. p. 11-57. Available from: http://www.nrhmorissa.gov.in/writereaddata/Upload/Documents/19.%20Impact%20Evaluation%20of%201000%20days%20Training%20to%20Assess%20the%20Skills%20and%20Knowledge%20of%20Frontline%20providers%20.pdf. [Last accessed on 2021 Aug 20].

11. World Health Organization and the United Nations Children's Fund. Indicators for assessing infant and young child feeding practices: Definitions and measurement methods. 2021. Available from: https://www.who.int/publications/i/item/9789240018389. [Last accessed on 2021 Dec 18].

12. Parikh P, Sharma K. Knowledge & perceptions of ICDS anganwadi workers with reference to promotion of community based complementary feeding practices in semi tribal Gujarat. Natl J Community Med 2011;2:457-64.

13. Barua K, Baruah R. Application of growth monitoring charts by health care providers in Village Health and Nutrition Day (VHND) setting in rural Kamrup. Indian J Community Health 2014;26(Suppl 2):322-6.

14. Ranjan R, Das M, Das S. Knowledge of anganwadi workers about integrated child development services: A study in Sitamarhi district of Bihar, India. Int J Res Med Sci 2019;7:4194-9.

15. Awasthis S, Verma T, Agrawal M. Danger signs of neonatal illnesses: Perceptions of caregivers and health workers in northern India. Bull World Health Organ 2006;84:819-26.

16. Mahyavanshi DK, Patel MG, Kartha G, Purani SK, Nagar SS. A cross sectional study of the knowledge, attitude and practice of ASHA workers regarding child health (under five years of age) in Surendranagar district. Healthline 2011;2:50-4.

17. Melo E Lima TR, Maia PFCMD, Valente EP, Vezzini F, Tamburlini G. Effectiveness of an action-oriented educational intervention in ensuring long term improvement of knowledge, attitudes and practices of community health workers in maternal and infant health: a randomized controlled study. BMC Med Educ 2018;18:224.

18. Vikaspedia. Janani Shishu Suraksha Karyakram. Available from: https://vikaspedia.in/health/nrhm/national-health-programmes-1/janani-shishu-suraksha-karyakram. [Last accessed on 2022 Jan 27].

19. Jadhav YU, Surwade JB, Kalyankar G. A study of factors affecting the knowledge of Janani Shishu Suraksha Karyakram among health workers in rural block Shirur of Pune district, Maharashtra. Int J Community Med Public Health 2017;4:3162-5.