Original Research Article

Evaluation of mother and child protection card entries in a rural area of West Bengal

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ABSTRACT

Background: Mother and child protection card (MCPC) is a common card to maintain the record of health care delivery including ante natal care, post-natal care and care of the child that can be used by both the health personnel and the beneficiaries.

Methods: Total 72 mothers of 0-2 years’ children residing at Banspool village were contacted and their MCPC were checked. From each of the five parts of the MCPC i.e. background and family information, information regarding pregnancy and childbirth, institution related information, antenatal care and post-natal care; maximum, minimum and median no of information boxes that were filled up were noted.

Results: Information on background information and ante natal care recording was high with almost all the boxes were filled up but there was lack on maintenance of other records like post-natal care, immunization and growth chart. It was also found that beneficiaries are not making circle in the IFA tablets consumption part.

Conclusions: The study reported gap in maintenance of proper health care delivery records through MCPC and more training for both the health personnel and mothers are needed for adequate use of the MCPC.

Keywords: Evaluation, Mother and child protection card, Rural, Ante natal care, Post-natal care, Immunization, Growth chart

INTRODUCTION

National institute of public cooperation and child development (NIPCCD) in collaboration with UNICEF and MWCD has developed Mother and child protection card (MCPC).1 MCPC was introduced in NRHM and ICDS from April 1, 2010.1 It endorses an integrated, holistic approach to ensure proper child care leading to survival, growth, development and protection of the young child through child centred, family focussed and community based intervention.2 The concept for development of such a card was to have a home based record that can be used by both the community health worker and the mothers and will contribute to active development of both the individuals and families.

This common card would enable the large networks of ASHAs, AWWs and ANMs to converge their efforts and utilise the critical contact opportunities more effectively.3 Being an entitlement card it would ensure greater inclusion of unreached groups to demand and universalise access to key MCH services. Though it is a common card to be used by both beneficiaries and health care provider, according to UNICEF, (2012) it was found
that the use of the MCPC is restricted to service recording only.\textsuperscript{1} Regarding recording of services in Andhra Pradesh both ANM and AWW have taken equal responsibility in making entries in MCPC, whereas in Kerala, AWW (85\%) has taken lead to make entries in MCPC.\textsuperscript{1} Delivery of proper health care services to the beneficiaries can be quantified and evaluated by the entries in MCPC. So, in the present study an attempt was made to evaluate the completeness of MCPC entries in Banspool village of West Bengal which is under service area of Department of Community Medicine, Medical College and Hospital, Kolkata.

### Table 1: Different sections of MCPC.

| Maternal care          | Child care          |
|------------------------|---------------------|
| Essential obstetric care | New born care       |
| Care during pregnancy  | Care during illness |
| Danger sign during pregnancy | Danger sign in a child |
| Ensuring institutional delivery | Immunization schedule |
| Preparation for home delivery | Growth chart |

### METHODS

**Study type:** Community based descriptive study  
**Study design:** Cross-sectional  
**Study area:** Banspool village under rural service area MCH, Kolkata  
**Study population:** Mothers of 0-2 years old children having a MCPC residing at Banspool village.  
**Duration:** 3 months (September 2016-November 2016)  
**Tool:** Structured checklist  
**Method of data collection**

List of mothers of 0-2 years’ children was obtained from the subcentre. There were total 86 mothers enlisted. House visits were done to check all 86 MCPC. However, 74 mothers with MCPCs could be contacted and data was collected from them with a dropout rate of 8.6\%.

Each of the MCPCs was divided into five categories, ie: background and family information, information regarding pregnancy and childbirth, institution related information, antenatal care and post-natal care. For each of the themes maximum number of boxes that can fill up were calculated. Then maximum and minimum number of boxes that were actually filled up was noted and the median value was also calculated.

### Exclusion criteria

Exclusion criteria were mothers critically ill, mothers not available, MCPCs not available, house found locked on 2 consecutive data collection days, refused consent.

### Data entry and analysis

Data was concurrently entered into MS EXCEL spreadsheet. MS EXCEL 2013 was used for calculation of frequency and percentage. Based on these data, completeness of entries for relevant sections of MCPC was computed and discussed.

### RESULTS

In this study total 74 MCPC from mothers of 0-2 years old children were evaluated. Among the mothers, maximum (52.7\%) were from age group of 20-25; 35.1\% were above 26 years and 12.2\% were teenagers. Mean age of the mothers was found to be 23.48 with standard deviation of 4.08. In the educational status, equal numbers (27.1\%) were illiterate and class IV pass. Majority of them (58.1\%) had only one child followed by 2 children (33.8\%) and three children (8.1\%). Regarding the age of the youngest child majority of them were infants (65.5\%) followed by under 24 months (24.3\%) and 12.2\% were under 36 months.

### Table 2: Background information of the study participants (n=74).

| Variables                  | Categories                     | Frequency (%) |
|----------------------------|--------------------------------|---------------|
| Age (in years)             | ≤19                            | 9 (12.2)      |
|                            | 20-25                          | 39 (52.7)     |
|                            | ≥26                            | 26 (35.1)     |
| Education                  | Illiterate                     | 20 (27.1)     |
|                            | Just literate                  | 14 (18.9)     |
|                            | Primary                        | 20 (27.1)     |
|                            | Secondary                      | 16 (21.5)     |
|                            | Hs and above                   | 4 (5.4)       |
| Number of pregnancy        | 1                              | 43 (58.1)     |
|                            | 2                              | 25 (33.8)     |
|                            | 3                              | 6 (8.1)       |
| Age of the youngest child  | <1 year                        | 47 (63.5)     |
|                            | 1 year                         | 18 (24.3)     |
|                            | 2 year                         | 9 (12.2)      |

Regarding entries in MCPC this study reveals that background information on family of the beneficiaries, information on previous pregnancy and childbirth and information regarding institution are being kept adequately with almost all the boxes in the MCPC are filled up. Ante natal recording like registration of pregnancy, ante natal check-ups and various tests that are conducted during this period are also properly recorded. This study shows that post-natal care recording is not adequate with maximum number of MCPCs shows no recording at all.
Regarding information on immunization though the actual date of receiving immunization was recorded but in none of the MCPCs the due date of vaccination was mentioned. In none of the MCPCs other information like IFA table consumption and growth chart maintenance was recorded.

Table 3: Distribution of MCPC according to completeness of entries.

| Categories                        | No. of information boxes | Range of completed entries | Median |
|-----------------------------------|---------------------------|----------------------------|--------|
| Family identification             | 8                         | 6-8                        | 8      |
| Information on pregnancy and childbirth | 19                        | 16-19                      | 17     |
| Information on institution        | 16                        | 10-13                      | 13     |
| Ante natal care                   | 33                        | 30-33                      | 33     |
| Post-natal care                   | 38                        | 0-2                        | 0      |
| total                             | 114                       | 56-70                      | 68     |

Below figure (Figure 1) describes the percentage of fill up of different aspects of MCPC and it clearly shows that though the Background information of the beneficiaries and records on ante natal care has been maintained adequately but in formation on post-natal care is not recorded.

This study reveals that all the pregnancies in last one year in the area of study were registered and all the mothers were provided with MCP card. This finding is in synchronous with the finding of NFHS IV in rural area of West Bengal which shows that 98.1% pregnancies were registered and have an MCPC.\(^5\) Among the study participants 27.1% were found to be illiterate which is lower than the finding of DLHS 4 where it was shown that 35.6% of currently married women in rural West Bengal were illiterate.\(^4\)

DLHS 4 in rural area of West Bengal reveals that a high number of mothers (79.7%) have received at least 3 or more ante-natal care. That finding can be reflected in our study where among 74 MCPCs almost all have completed entry in the ante-natal part indicating a high level of ante-natal care.\(^5\) In a study conducted by Agarwal et al in a village Palsora in Chandigarh it was also found high ante natal coverage (92.2% received at least one Antenatal check-up).\(^7\) This can be due to peri urban location of the study area so the proper recording of ante natal services is maintained by the village level worker and also the secondary and tertiary level hospitals where the mothers usually have their ante natal check-ups.

According to DLHS 4; among the mothers 60.6% of them in rural area of West Bengal received post-natal care from health personnel but in our study, it was found that very few of the MCPCs have any entry in post-natal part of the MCPC that also maximum number of 2 entry among 38 boxes indicating a poor post-natal service recording.\(^6\)

Immunization coverage of the children under three years were high as in all the MCPCs the actual date of vaccination were recorded. This finding is supported by NFHS IV as in rural West Bengal the immunization coverage is high (87.1%) and also by DLHS 4 which shows that the coverage for same is 80.8%.\(^5\) High immunization coverage was also shown in a study by Gupta et al in the rural area of Pune, Maharashtra (86.67%) though in that study it was found that the immunization card was available with 60.95% of the subjects in contrast of high availability of MCPC among the participants in West Bengal.\(^8\)

**DISCUSSION**

Proper documentation of health care service is of utmost importance in maintaining a high level of care and proper planning for strengthening the health care delivery. In various other studies conducted in developing countries it has been shown that there is lack of proper maintenance of medical records. In a knowledge attitude practice study on medical records documentation among medical students in Mazandaran University, Iran showed that 77% of the students had low knowledge about proper documentation.\(^7\) A study on documentation of caesarean section in Afghanistan showed that information on partograph use was missing in 38% of cases, information on parity in 23% of the cases and indication of caesarean sections in 9% of cases.\(^8\) In our study there is also evident of lack of proper maintenance of record as it was found that in post-natal care part in the MCPCs majority of the boxes were not filled up, in immunization section the due date of vaccination were not filled up and in none of the MCPCs growth chart were plotted.

**Figure 1:** Showing percentage of fill up of different parts of the MCPC.
CONCLUSION

MCPCs are very useful tool for maintenance of records for health service and can be used by both the health care provider and the beneficiaries. From this study, we found that though the MCPC are being used adequately for keeping the background information and ante natal care provided to the mother but its usage in post-natal care, immunization and maintenance of growth chart was not satisfactory. We also found that the mothers are not at all using the MCPC to record the IFA tablet consumption.

Proper training to use the MCPC correctly and adequately should be arranged for both the health care provider like ANMS or ASHAs and also for the mothers.

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