

[Original Article]

**Development, Field Testing and Potential Benefits of a Maternal and Child Health (MCH) Handbook In Bangladesh**

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**Abstract**

In many countries, maternal and child health (MCH) handbooks help ensure the quality and continuity of health care for mothers and children. In Bangladesh the main health communication tools currently in use, such as treatment cards, immunization cards, and antenatal and postnatal cards, support only one-way communication. There is no evidence that mothers in Bangladesh are convinced of the cards' merits. A pilot MCH handbook project was carried out in Bangladesh in 2002 by the author, as a PhD student in the International Collaboration Division of Japan's Osaka University. The study showed that the MCH handbook had strong positive impacts on mothers' MCH knowledge, practices, record keeping, and service utilization and on the quality of MCH services. Since 2006 the Government of Bangladesh has approved project-based utilization of MCH handbooks, and some NGOs are now implementing projects using MCH handbooks. Building on the findings of the earlier pilot study, and with 2007-2009 support from the Japan Society for Promotion of Sciences (JSPS), researchers have been conducting a community-based study of the use of the MCH handbook, in preparation in for potential nationwide expansion of MCH handbook use in Bangladesh.

**Keywords:** Maternal and Child Health, Handbook, Development, Bangladesh

**I. Maternal and Child Health (MCH) handbook**

Maternal and child health (MCH) handbooks are comprehensive, health-promoting, home-based booklets which generally include information for clients and records for both clients and health care providers regarding, pregnancy-related health checkups (including schedules) and emergency care, labor and delivery, postnatal care, family planning, immunization, neonatal and child care. They facilitate two way communication between health care providers and pregnant mothers and their families and help raise awareness regarding safe motherhood and the importance and quality of maternal and child health services.

MCH handbooks are intended to convey

information that ranges from primary health care to specific issues of reproductive health, pregnancy and child care; to act as motivational tools for health care providers and for pregnant mothers and their families; to assist, encourage and help empower pregnant mothers to seek needed medical care and to inform them as to when, where and how to obtain it; and to provide home-based medical records and referral documents to help assure the continuity and quality of pre- and postnatal mother and child health care services.

**II. Background for introduction of an MCH handbook in Bangladesh**

Reducing Bangladesh's alarmingly high infant mortality rate (IMR) and maternal mortality ratio

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(MMR) to achieve millennium development goals (MDG) 4 (reduce child mortality) and MDG 5 (improve maternal health) is crucial. Data show that 63% of pregnant women do not receive any care from medical facilities and that over 90% of mothers deliver at home, often in unsafe and unhygienic conditions<sup>1</sup>. Factors that probably contribute to low utilization of such services include lack of information, awareness, motivation and empowerment of mothers and also inadequate communication between providers and clients. In Bangladesh the main health communication tools currently in use, such as treatment cards, immunization cards, and antenatal and postnatal cards, support only one-way communication. We have found no indication that mothers in Bangladesh are convinced of the cards' merits<sup>2</sup>. Despite evidence related to the usefulness of providing information to clients, no research-based and research-validated tool has yet been established in Bangladesh that could satisfy clients' needs for MCH health information and health and healthcare records, although such a tool could be expected to contribute to reduction of IMR and MMR.

### III. The process of the introduction of an MCH handbook in Bangladesh

In 2001, as an International Collaboration Ph.D. student at Osaka University, the author communicated with the Government of Bangladesh and with non-government agencies and NGOs in Bangladesh with regard to the potential introduction of an MCH handbook. With the help of government medical officers, nurses, NGO health workers, donor agencies and policy makers, and with the guidance of Osaka University's Professor Y. Nakamura, the contents and format of a draft handbook for use in Bangladesh were developed, incorporating information gathered from seminars, workshops, dialogues, group discussions and key informant interviews in Bangladesh. Providers' training sessions focused on how to use the draft handbook, on its applications and potential benefits, and on how to conduct surveys of mothers receiving services, emphasizing how the providers could both receive information from the mothers and help the mothers to understand the objectives, application and usage of the handbook. Before distributing the handbook to the mothers, the mothers'

levels of directly relevant basic knowledge of health and healthcare were determined by a pre-intervention survey. Later, the handbook was given to 240 pregnant women randomly selected from the pregnant women attending the outpatient department of the Maternal and Child Health Training Institute (MCHTI) Dhaka<sup>3</sup>. Those not selected to receive the handbook were given the traditional health cards then in routine use at MCHTI. An assessment of the handbook was conducted among the women who were given the handbook, using interviews and focus groups held and questionnaires administered when their babies were one and half a month old. The MCH handbook developed in Bangladesh also reflects the experiences and concepts of other countries, including Japan, Thailand, and Indonesia. The possibility, application and acceptance of this handbook were tested through a pilot study at MCHTI Dhaka conducted by Osaka University<sup>4</sup>.

### IV. The development of the MCH handbook in Bangladesh

In 2007, an operational field research study was conducted by the Obstetric and Gynecological Society of Bangladesh (OGSB) at Maternal and Child Welfare Centers (MCWCs) in four districts in four different divisions supported by JICA Bangladesh as a part of a community-based safe motherhood project. In rural communities in Bangladesh Islamic beliefs substantially influence various aspects of villagers' lives. In most such communities, many people trying to overcome their health-related problems rely on suggestion from local Islamic leaders. Community members' health-related beliefs, perceptions and practices have been well established for many years. Although some of those beliefs no doubt have positive impacts on their lives, people are misguided by some false ideas, with undesirable consequences especially for mothers and children. Therefore, researchers want to know and understand the results of MCH handbook application in rural communities in Bangladesh. Community-based field research is now being conducted in Bangladesh by Osaka University, with support in 2007-2009 from the Japan Society for Promotion of Sciences (JSPS), under the title "Empowerment of women in Islamic society: through MCH handbook in Bangladesh"<sup>5</sup>.

## V. The advantage of MCH handbook

In Bangladesh an MCH handbook pilot study showed that 78% of mothers who had received the handbook believed that using the handbook could be a useful way to increase awareness among mothers about parents' health duties and responsibilities. The pilot study also showed that pregnant women who received the handbook had more MCH information, better practices in MCH care, and higher utilization of MCH services than did the mothers in the control groups, who received only the health cards in general use in Bangladesh. There was no correlation between mothers' education level, age, or economic condition and their use of the handbook. Among mothers who had received the handbook, 88% believed that the handbook system was a very easy method and that it would improve mothers' and children's health. Most (83%) of the mothers brought the handbook with them to consultations with healthcare providers, 84% of the mothers were able to read the handbook, and 76% could write their opinions in the handbook<sup>6</sup>. In other research mentioned above, conducted in four MCWCs in various districts, pregnant women expressed high levels of interest in using the handbook. In the latter study, 91% of mothers could read and understand the handbook, wrote their opinions in the handbook, and brought the handbook with them to consultations with healthcare providers<sup>7</sup>. In those studies, it was found that only 0.5% of mothers lost the handbook they had received. In the MCH handbook studies in Bangladesh, great enthusiasm was seen among the users and health care providers.

## VI. The challenges of MCH handbook

Although the contents of the Bangladesh MCH handbook seem quite simple, it could have a wide impact on the present and future healthcare of the country's mothers and children. In addition, the cost of the handbook is much less than that of the 4 or 5 health cards that are being used currently. Therefore, a government initiative to disseminate this handbook could be a very cost-effective and even cost-reducing option. The handbook itself could be further improved to update the contents and make them easier to read and understand, so that the users could get more benefits from it. Especially if the MCH handbook were to be further developed with a

focus on utilizing a problem-oriented approach and incorporating more of the recommendations of end-users, the handbook could contribute significantly to improving the quality of life of women and their children. Health service providers would need to be trained to ensure proper utilization and distribution of the handbook. The current health cards systems are expensive for the government, and it is also difficult for illiterate people to make the best use of the cards. The MCH handbook seems to be better than the cards in terms of helping establish and maintain quality and continuity of care for both the mothers and children. The MCH handbook will encourage safe motherhood by providing information on family health issues, prevention of diseases, and improved utilization of health care service facilities. Such changes would eventually decrease the country's mortality rate and in the long run would have a positive impact on sustainable health care development in Bangladesh.

## VII. Conclusion

The MCH handbook contents should be appropriate to the community. Expanding the MCH handbook program in Bangladesh and assuring widespread and effective utilization of the handbook will require training, excellent program management, and collaboration between stakeholders including Government, NGOs, and professional and development partners. Sustainable development of the MCH Handbook program could improve the quality of life of women in Bangladesh.

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#### **Note**

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