Research Article

Study on the Development and Assessment of Maternal and Child Health (MCH) Handbook in Bangladesh

Shafi Ullah Bhuiyan *

Yashuhide Nakamura **

Nahid Akhter Qureshi ***

ABATRACT

A pilot study was carried out to develop MCH handbook and to assess its effect on mother's knowledge, practice and utilization of MCH services from September 2002-October 2003 at the Maternal and Child Health Training Institute (MCHTI), in Dhaka, Bangladesh. In order to develop a MCH handbook for pregnant mothers, a focus group discussion was carried out and subsequent outcome measurement of handbook utilization involved a pre and post intervention survey following the introduction of the handbook.

A total of 600 samples who visited MCHTI first time in their current pregnancy were randomly selected, of which 240 were in study group receiving handbook and 360 were in controls group receiving existing cards only. Data was analyzed by using multilevel analysis approach. Findings from the focus groups discussion emphasized the need for including MCH handbook in Maternal and child program in Bangladesh. In addition, quantitative data suggests that mothers in study group had higher knowledge on MCH issues, better practices in MCH care and higher utilization on MCH services than mothers in control groups who used other health cards.

As the MCH handbook is developed utilizing problem-oriented approach and involving the recommendations of end users it is believed that it would contribute significantly in ensuring the quality of maternal and child health conditions in Bangladesh.

KEY WORDS

Maternal and Child Health (MCH) Handbook Development Bangladesh

* M.B.B.S., M.P.H., Ph.D., ASEAN Institute for Health Development (AIHD), Mahidol University, Thailand

** M.D., Ph.D., International Collaboration Division, Faculty of Human Sciences, Osaka University, Japan

*** M.B.B.S., M.P.H., ASEAN Institute for Health Development (AIHD), Mahidol University, Thailand

INTRODUCTION

During the past 35 years, the Government of Bangladesh together with NGOs has made considerable efforts to provide health and family planning services, which has resulted in progress in some indicators. For example, the national infant mortality rate (IMR) declined from 150 per 1,000 live births in 1975 to 87 in 1999.The annual crude death rate has also fallen from 19 per 1000 in 1975 to just 5 in 2000. However, achievement in the field of maternal mortality has not matched that seen in these other related fields. Although the Maternal Mortality Ratio (MMR) did fall from 620 per 100,000 live births in 1982 to 440 in 2000 (World Bank, 2001). This level is still considered unacceptable high, with around 20,000 Bangladeshi mothers dying each year due to causes related to pregnancy and child birth (World Bank, 2001). Many strategies have been adopted and developed for the improvement of maternal and child health (MCH) conditions of Bangladesh. One of the recent government strategies is to develop a national MCH tool through which vital information can be given to mothers in order to improve the MCH services of the country.

Internationally most researchers seem to agree that providing MCH knowledge to the mothers and families through a communication tool will help to improve and sustain the maternal and child health conditions of a country. Albrecht (2000) stated that the focus of antenatal care need to be shifted from schematic and ineffective allocation of risk labels to competent and individualized counseling in order to empower mothers and their families to take informed decisions. Cynthia (2001) found that the best evidence of the program's success is its acceptance by the community and the participating families. Rodolf (2003) distinguished four types of services by proximity to the resolution of life threatening maternal conditions: treatment, risk identification, prevention and avoidance. According to Choolani and Ratnam (1995) female health literacy can play a most vital role in order to reduce maternal mortality. Conventional wisdom long held that giving people information could change behavior and thereby solve health and social problems. The idea of schemas suggested that a health message will be better understood if it activates existing schemas-if, in other words, the receiver has a handy place to store the information and some conscious ideas regarding where the information is stored.

The existing communication tools which are currently been practiced in Bangladesh are one-way communication type referred as treatment card, EPI card, antenatal card etc. There is no such evidence that mothers are being persuaded of these cards's merit. Despite findings related to usefulness of providing information to client, research oriented tool has not been established yet in Bangladesh which could satisfy clients' need. Globally, success related to MCH handbook has gained validity due to its contribution in MCH services. However achievement has been made in county-based standpoint. Although much work has been done to date to improve MCH situation in Bangladesh, studies need to be conducted to develop and ascertain the usefulness and cost effectiveness of this MCH handbook in Bangladesh context.

The MCH handbook is one of the tools that has been considered to carry out the quality health care for both mothers and children in many countries. Some related studies have been conducted on MCH handbooks in Japan, Indonesia, Mexico, Brazil, Thailand, Laos, Vietnam and South Korea; after launching the MCH handbooks in these countries. It is now well understood that the MCH handbook contributed greatly to quality MCH service development. However, a reduction in maternal and infant mortality in the above countries yet to be established (the 4th International Symposium on MCH Handbook, December 2004, Thailand) through evidence based study.

Researcher tried to develop MCH handbook based on the lesson learnt and concept from Japan and some other neighboring countries, which are practicing MCH handbook in their regular MCH program. The purpose of this pilot study was to develop the maternal and child health (MCH) handbook content by local experts, stakeholders, and providers- to assess its output and utilization among selected pregnant women at Maternal and Child Health Training Institute (MCHTI), Dhaka, Bangladesh.

MATERIALS AND METHOD

This study was composed of qualitative and quantitative part. Qualitative part was responsible for development of MCH handbook through and quantitative part was performed to assess the handbook utilization. Instruments for the qualitative part were focus group discussion, key informants meeting, Observations and in-depth interview. Quantitative part consists of survey, conducted twice among pregnant mothers at Maternal and Child Health Training Institute (MCHTI) before and after intervention with MCH handbook. Six hundred pregnant mothers on the first visit of their current pregnancy to MCHTI, at outpatient department were interviewed through structured questionnaire during the period of November 2002 for initial survey and same mothers were again interviewed during the period of October 2003 for second time. A systemic random sampling was carried out to select the mothers from outpatient register. Before intervention providers were trained in the use of the handbooks .Six providers were assigned to instruct the mothers about how to use the book. Among 600 mothers 240 cases were provided with MCH handbook and 360 mothers were provided with existing cards.

Data was analyzed to compare the baseline characteristics of the respondents and to determine the effectiveness of the handbook by calculating the improvement rate. Quantitative data was analyzed by SPSS soft wear 10.0 versions. Chi-square test was applied to measure the significance of the study.

RESULTS

In this current study there were qualitative and quantitative results-qualitative results was for MCH content development and quantitative results for the baseline study, and for the usefulness/effect or assessment of MCH handbook intervention study (pre and post intervention) at MCHTI, Dhaka, Bangladesh. These results are stated as below.

Qualitative Result: Development of maternal and child health (MCH) handbook- Process of developing MCH handbook

Considering the principle of making information tool-which is locally developed, content is bilingual (English/Bangle) with color illustration, distribution of handbook from hospital and patient keep handbook. A brain storming session was organized at MCHTI with some selected providers and clients to explore their ideas and views about MCH handbook development in Bangladesh. Three group's discussion sessions were conducted, first group consists of nearly 20 medical doctors including 4 JICA experts, second group consists of 20 family welfare visitors, midwifes and nurses and third group consists of 10 patients and their relatives or stakeholders at MCHTI. These FGD sessions were conducted at MCHTI, Dhaka, Bangladesh during the period of September -October 2002.

Each group discussion was held for one hour long. Participants were discussed all the related matter about MCH handbook development possibilities and prospective issues. According to research background and interest the following issues was discussed- 1) information about MCH handbook, 2) usefulness of MCH handbook, 3) problem related to start of MCH handbook, and 4) benefit of MCH handbook. Discussion results showed that majority of the participants in each group had no previous idea/information about MCH handbook. After briefing by the researcher about MCH handbook almost every participants felt that it might be useful for health education as well as a good IEC tool at MCHTI. Nearly one forth of the total discussant pointed out that proper fund allocation, orientation, training and also illiteracy might be problem for starting this prospective handbook for the first time at MCHTI. On the other hand majority agreed that it could be a best tool for health information, education and communication to ensure quality MCH services at MCHTI, Dhaka, Bangladesh.

Characteristics of Key Informants Participants Stakeholders

In this group there were 6 members and 2 persons from each category, consisting of fathers, pregnant mothers and mothers-in-law. The age of fathers was 30-40 years, while the mothers' age was between 20-35 years. Mothers-in-law were 45-55 years old. The education of mothers was generally 5^{th} grade to 10^{th} grade, while fathers mostly completed college level education. Mothers-in-law were without formal education. Most of the mothers and mother-in-laws were housewives and had no other paid employment; however fathers were either g overnment employees and or businessmen. The number of existing children the mothers had is generally between 1-3 children.

Health Providers (Doctors, Midwives, FWVs, Nurses)

The number of the participants in this group was 8 persons, 2 persons from each category. FWVs education was high school level plus eighteen months of training; Midwives had six months more training than nurses, especially in obstetrics case management. Doctors were MBBS with post graduation qualifications in obstetrics and gynecology.

GO-NGO Policy Maker and Donor Agencies Representatives

This group consists of people from government offices, the Director (MCH-S) and Program Manager (MCH-S); and from NGOs, Project Manager (RH), Assistant Country Representative from UNFPA Bangladesh office, JICA funded HRDRH Bangladesh Project Expert, WHO Consultant for SBA Project in Bangladesh. Out of total 6 persons there were 5 medical graduates and one social science graduate. All of these people had vast experience in public health program planning, management, implementation, monitoring and evaluation and locally resided in Dhaka Bangladesh.

MCH Handbook Content Formulation Information on the MCH Handbook

The majority of the participants did not know anything about this handbook In particular mothers, fathers and mothers-in-law, had no knowledge or experience with the handbook. As one participant said- "*We have more than four cards for our maternity care but we have never heard about a handbook in our country*". Additionally very few providers had heard about the MCH Handbook, and only a few policy makers had heard of the book from a previous tour of Japan. These policy makers mentioned the popularity of the MCH handbook in Japan.

Usefulness of MCH Handbook

After an open discussion amongst participants, almost all felt that an MCH handbook would be useful for health information and education at MCHTI. The client group, informed on the global situation of MCH handbooks, felt that such a handbook would be a good instrument for learning in their own pregnancy. One pregnant mother said- "*With existing cards we are not able to know any health information, but if the prospective handbook can provide us with some basic health information it would be better for our pregnancy care*". Policy makers and donors also agreed and according to them further emphasis should also be given to the use of handbooks for record keeping and as a referral document.

Maternal and Child Health (MCH) Handbook System

Each group discussion was held for one hour. Participants discussed all of the issues related to MCH handbooks, including their thoughts on the handbooks and the reasoning behind their beliefs. Some participants worried about the literacy of women but other participants pointed out that in an urban area like Dhaka, it is usual that at least one member of the family can read or write, so understanding the handbooks should not pose a major difficulty for families. Easy and simple language accompanied by nice pictures may also help the MCHTI handbook's usability. Also a similar handbook system has been used successively at the Diabetic Hospital, in Dhaka, for all Diabetic Patients on a regular basis.

MCH Handbook Content Finalization

After careful analysis of the discussion, the following summary was drawn for construction of the MCH Handbook content for the pilot study at MCHTI. Based on this content, the researcher developed the final draft of the MCH Handbook.

This draft also discussed with local providers, policy makers, and NGO representative and donor representation for final comment. After receiving comments from local experts, the final MCH Handbook was discussed in international collaboration course at Osaka University, Japan before being published for a pilot trial among women during their first antenatal care visit to MCHTI .

Brief Contents of the MCH Handbook related to the Pregnant Mothers-

General profiles name, address, birth date, guardian, phone, Guardian identity and child birth certificate, Woman occupation and home situation, Health record of pregnant mother, Menstrual history and history of previous pregnancy if any, Health education class record, Pregnancy record, Birth planning, Family health information, Things to remember, Health information and information's about complications during delivery, Mother's vaccine and lab report, Record of delivery, Post natal conditions and post natal check up, Maternity information, Things to be done by postpartum mothers, Family Planning etc.

MCH Handbook contents related to the Babies

- Growth chart, Child development and rearing, Child vaccination, Vitamin A capsule schedule and breast-feeding, Control and management of Diarrhea, Child's cough and cold information, Baby's sickness and treatment record etc.

Quantitative Results: Baseline/Pre Intervention Survey

Distribution of number and percentage of mothers by general characteristic is presented in table 1.In case group majority of the mothers (90%) were housewife. Almost 75% of the mothers were above 20 years. The majority of the mothers (68.3%) had primary school education. Almost 60% had income more than 5000 taka per month. In control group most (92.8%) of the mothers were housewife. Majority of the mothers had primary school education. Almost 85% mothers were above the age of 20 years. Unlike the case group more than half of the mothers (57.5%) in control group had income less than 5,000 taka per month. For antenatal care 98.3% of case mothers and 94.4% of control mothers visited the hospital as an outpatient.

Mothers' Knowledge

Results shows that 10.0% of case mothers and 13.9% of control mothers knew about ANC visits, while 90.0% of case and 86.1% of the control groups had no knowledge of ANC. Regarding Danger Signs, 75.0% of the case group and 76.4% of the control group had no know ledge of the danger signs during pregnancy. On the topic of Mothers' Tetanus Toxoid, 62.1% of case mothers and 64.4% of control mothers knew about immunization (Vaccine). On the issue of breast feeding, 64.2% of mothers in case group knew the issues related to breast-feeding and for the control group this figure was 59.2%.

Regarding Child Vaccination, only 45.0% of case mothers and 40.8% of control mothers knew about EPI and vaccination. About Diarrhea, Most of the mothers in the case group (88.8%) and control group (85.8%) had adequate knowledge regarding diarrhea. Concerning family Planning, Very few case mothers (22.5%) and control mothers (26.4%) had a clear understanding of family planning methods.

Table 1 General Characteristics of Respondents

Data	Case (n=240) (%)		Control (n=360) (%)	
Occupation				
Housewife	216	90%	334	92.8%
Job	24	10%	26	7.2%
Age				
≤ 19 years	62	25.8%	58	16.1%
≥20 years	178	74.2%	302	83.9%
Education				
Primary-Secondary	164	68.3%	229	63.6%
College-University	71	29.6%	51	14.1%
Literate or Not				
Mother: Yes	235	97.9%	278	77.2%
No	5	2.1%	82	22.8%
Father: Yes	228	95%	309	85.8%
No	12	5%	51	14.2%
Family Income				
≤ 4,999/-	97	40.4%	207	57.5%
≥ 5,000/-	143	59.6%	153	42.5%
Hospital Visit				
Reasons: ANC	236	98.3%	340	94.4%
PNC & Others	4	1.7%	20	5.6%

Mothers' Attitude

Regarding pregnancy care, in the case group 82.5%, and in the control group 83.3%, of mothers had good attitudes towards pregnancy. On the issue of Health Care Support: In the case group 65.0% of case and 63.9% of control mothers had good attitudes towards health care support .About child care, in the case group 70.4%, and in the control group 73.9%, of mothers had good attitudes towards child care. Regarding Role of husband, in the case group 64.6%, and in the control group 72.5%, of mothers had good attitudes towards the role of their husband.

Mothers' Practice on MCH Services

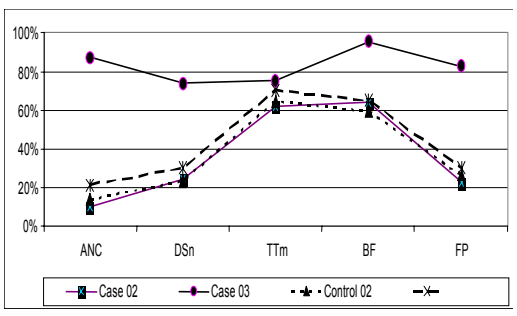
Study shows 28.3% of case mothers made an ANC visit during their last pregnancy, while 30.6% of mothers in the control group utilized the same services.81.7% of case mothers breast-fed in their last pregnancy, while 90.3% mothers in the control group breast fed their children. Regarding Child Vaccination, 84.6% of case mothers and 80.5% of control mothers had vaccinated their youngest children (born prior to current pregnancy). About Iron supplement, 82.7% of case mothers received iron supplements in their last pregnancy while 80.0% of mothers in the control group received the same. On the issue of Family Planning, 42.1% of case mothers practiced family planning during their last pregnancy, while 35.3% of mothers in the control group practiced the same. Regarding Mothers' Immunization, 40.0% of case mothers were vaccinated during their last pregnancy, while 46.4% of mothers in the control group were vaccinated.

Post-Intervention Survey Results: Changes in Knowledge, Attitudes and Practice Following Utilization of the MCH Handbook

MCH handbook intervention study was showed that changes in women's knowledge of antenatal care visits were 78.0% and 8.3% for case and control groups respectively ($p<0.05$). The change in knowledge of danger signs were 46.9% and 5.0% respectively. For breast feeding, 28.7% of case and 4.6% of controls demonstrated a change in knowledge. Vaccination was 32.4% and 5.7% for case and controls respectively, and for family planning these figures were 60.8% and 5.0%.

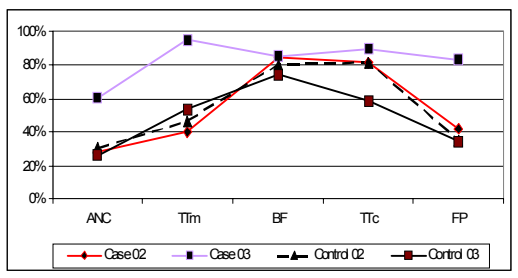
Intervention also encouraged some positive change in women's attitudes. These positive changes in attitude, for case and control groups respectively were: on pregnancy care, 5.7% and 2.0%; on support of health staff during pregnancy, 6.7% and 2.6%; on child care, 7.2% and 3.0%; and on the role of their husband during the pregnancy period, 3.6% and 3.3% .

Figure 1 Change of mother's knowledge following Utilization of the MCH Handbook



Following the intervention, some changes also were noted in practice of antenatal care visits, 55.9% and 35.5% for the case and control group, respectively ($p<0.05$). Other noticeable changes for case and controls were: practice in mother's tetanus toxoid, 15.1% and 6.6%; breast feeding, 16.9% and 0.7%; child vaccination, 8.3% and 1.5%; vitamin A and iron supplementation, 17.6% and 1.4%; and family planning 41.5% and 2.0% .

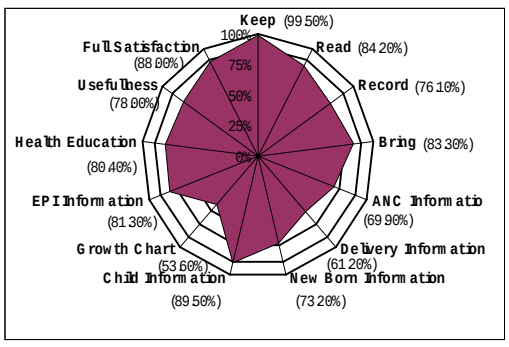
Figure 2 Change of mother's Practice following Utilization of the MCH Handbook



MCH Handbook Assessment Results

Results show that 84.2% of case mothers read all content. 76.1% of case mothers record all, 83.3% always bring and 99.50% women kept their handbooks. Mothers perceive MCH handbook as useful tool, were 78.0% and only 22.0% think sometime useful to them. Mothers requested to include of HIV/AIDS and STD information were 4.8%.

Figure 3 MCH Handbook Utilization Assessment Results



Relationship between MCH Handbook Utilization and Mothers' Age

The percentage of case mothers who always brought the MCH handbook during hospital visit was 79.6% for younger women (<19 yrs) compare to 84.4% of women over 19 yrs of age. 77.6% of women in the younger age group read the entire contents compare to 75.6% of the older group read the same. 83.7% of the younger women recorded information in all of the necessary sections while this figure was 84.4% for the older group. However there was no significant relationship between women's age and utilization of the MCH handbook (p>0.05).

Relationship between MCH Handbook Utilization and Mothers' Education

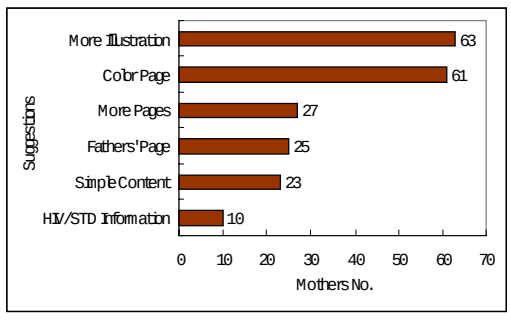
Considering educational level, 81.6% of less educated women (primary and secondary level education only) always brought the handbook, compare to 85.5% of highly educated women (college and university level). 80.9% of cases in less educated read all of the contents of the handbook compare to 89.9% for moderate to highly educated women. The percentage of less educated women recorded information in all of the necessary sections of the MCH handbooks was 79.4% compare to 69.6% of moderately and highly educated mothers. However, no statistical significant result was found (p>0.05).

Relationship between MCH Handbook Utilization and Family Income

The current study showed that low and high income group had almost same percentage (83% and 83.5%) in bringing MCH handbook on their hospital visits. Regarding reading of all contents of the handbook, 82.2% of women belonged to low income families and 85.3% of women belonged to middle income families. Women in the low income group were 79.4% compare to the women in the middle income groups were 73.8% who recorded information in all of the necessary sections of MCH handbooks. However, the current study was not able to demonstrate any relationship between family income and MCH handbook utilization (p>0.05).

MCH Handbook content Suggestions from Users

Figure 4 MCH Handbook Users' Suggestion for Handbook Improvement



In terms of improvement to the handbook, about 59.3% of case mothers suggested the need for more illustrations and color pages; while 23.9% of women mentioned increasing the number of pages with simple content. Some 12.0% of the mothers requested the inclusion of more pages for fathers and information on their involvement; and 4.8% mentioned the inclusion of HIV/AIDS and sexually transmitted disease (STD) information as desirable.

DISCUSSION

Of the total maternal death in Bangladesh, 69% are due to direct obstetric causes. The most common obstetric causes to maternal deaths are postpartum heaemorrahge, eclampsia complication of abortion, obstructed labor and postpartum sepsis. Government of Bangladesh does have adequate infrastructure to provide health care services to the public from the national level to even the rural, hard-to-reach places. Yet, 63% of mothers do not receive antenatal care (MOH&FW 1998). Furthermore, almost 92% births are delivered at home, often in unsafe and unhygienic conditions. Factors potentially influencing low uptake of services by women are; lack of information, motivation and empowerment of mothers and lack of communication between providers and client. If mothers are being motivated and empowered through some information tool, many unwanted maternal death could be prevented and at the same time communication between service providers and pregnant mothers would be improved in substantial level. The purpose of this present study is to develop a MCH information communication tool and to observe how this tool would improve the utility of the MCH services.

The results of this study show that there has been satisfactory improvement of knowledge regarding antenatal care, danger signs, breast-feeding and vaccination among case group after intervention of MCH handbook. While know ledge remained almost the same for the control group who was provided with conventional cards only. The study also shows some positive changes in women's attitudes. Specifically, change in attitude toward pregnancy care, support of health staff during pregnancy, childcare, role of the husband during the pregnancy period. After getting MCH handbook, practice in antenatal care visits increased to considerable level in the case group. Other notable changes were: practice in case mother's tetanus toxoid (TT), breast feeding, child vaccination, vitamin A and iron supplementation, and family planning. We originally assumed that mothers would be able to utilize MCH hand irrespective of age, educational level and family income. Present study results are in substantial agreement with those assumptions. There was no relationship found between a pregnant women's age, educational level, or family income, and the utilisation of the MCH handbook (i.e. through reading, writing and bring the handbook on subsequent visits). Assessment study indicated that most women brought the handbook on subsequent visits. The majority of the women kept the handbook and found it highly useful. Regarding opinion about the handbook, the majority of case mothers suggested the need for more illustrations and color pages; among other recommendations increasing thenumber of pages

with simple content.

Experience in many developed and developing countries showed that the MCH handbook has many benefits (2nd International Symposium on MCH Handbook, Manado, Indonesia, 2001). The handbook serves as a general basic tool for mother and child health care, and additionally it can perform one or more of the following specific functions: a) provide information and education materials for health education, b) provide information on the continuity of mother and child health care, c) serve as a communication tool between health service providers and pregnant mothers, and d) serve as a document for mother and child health home-based record, e) serves as a referral document. Nakamura (2001) pointed out some limitations of MCH handbook; the cost of printing; the possibility of missing handbooks; and the overshadowing of the importance of training courses for health professional and users. Although, when there are two or three kinds of charts/cards that are used for mothers and children, the cost of printing MCH handbooks turn to be cheaper than that of printing charts/cards.

According to a US-Japan collaborative research study, one of the possible factors for the reduction in infant mortality rate and maternal mortality ratio in Japan is the maternal and child health (MCH) handbook Program. (Nakamura & Sato, 2000).In Thailand prior to 1985, the health check-up information of mother and child were recorded separately on cards. This method of record keeping was inconvenient for the clients and many records were lost. Subsequently a MCH handbook was introduced in order to gather all health cards into one handbook (Sirikul, 2001). In Indonesia, since 1996, there has been a wide distribution of MCH handbooks to target users. It was found to be a useful tool with high satisfaction rate. Users even stated that they would like to pay for it. In Vietnam, the MCH handbook is recognized as an effective tool for reproductive health promotion, and nutrition, immunization, family planning, infectious disease prevention, community based rehabilitation (CBR), and HIV/AIDS (Vu Huy Dinh, 2001). Moreover, the handbook is sometimes considered as a useful reference when a child or pregnant women is referred from a health centre to a clinic or hospital. A MCH handbook has been in use for nearly 20 years in Korea. It has been designed to keep records of prenatal care, from early pregnancy to delivery, and childhood health care, so that the continuity of care, an essential element of quality care, can be ensured. It also contains important health information for pregnant woman on delivery and childcare, which can be used for health education (Shin, 1998).

Application of MCH handbooks is not limited to a single issue, they address many examples of the wide scope of MCH service-from their provision of information for mothers to their role in promoting policy change (Ory, 1998). MCH handbooks may also be considered as a tool to motivate the registration of pregnancies, to motivate the use of MCH services, as a medical record, as a regular self-check system, as certification, as a health educational material, and as a diary of memories (Hashizume, 1998). According Nakamura, (2001) The MCH handbook is most effective when the health care delivery system exits, and where there are many

health professionals and health workers working actively on Reproductive Health. Referred from Bangladesh Health Bulletin (1998-1999), existing infrastructures seem to be enough to provide necessary MCH services. In addition, comprehensive program have been made in Bangladesh with special emphasis on human resource development. Existing resource in Bangladesh and demand from MCH service imply that there are enough reasons to set up MCH hand book in Bangladesh. Study result suggests that launching MCH handbook program would adjoin MCH services activities and in the long run it might help to eliminate maternal and child health problem in Bangladesh.

CONCLUSION

This study showed that pregnant women in the case group had higher knowledge on MCH issues, better practices in MCH care, and higher utilisation of MCH services than mothers in the control groups who used alternative health cards. Furthermore, public health expert, GO-NGO policy makers, providers and MCH handbook users seem to be enthusiastic in pilot development and implementation process. If the maternal and child health (MCH) handbook is developed with a focus on utilising a problem-oriented approach and involving the recommendations of end-users, it is anticipated that the handbook would contribute significantly to ensuring the quality MCH service in Bangladesh. Before expansion of MCH Handbook initiative nationwide, researchers recommend that similar research would be worthwhile in different urban, rural and community settings.

ACKNOWLEDGEMENT

We gratefully acknowledge the funding of this research (as a Ph.D. thesis-research grant, Osaka University, 2004) by international collaboration division, Faculty of Human Sciences, Osaka University, Japan. We appreciate the local and international public health experts' kind cooperation's to conduct this study at M.C.H.T.I Dhaka, Bangladesh and also acknowledge the contributions of DG-FP, M.C.H.T.I staff and respondent pregnant mothers. During the various stages of this study, its preliminary result was presented in some international public health conferences (i.e. The 6th World Conference in Perinatal Medicine, Kobe, 2003; The 4th World Conference on Health Education and Promotion, Melbourne, Australia, 2004; The 10th World Federation of Public Health Conference, Brighton, U.K., 2004; The 4th International Conference on Urban Health, Canada, 2005). Furthermore, several discussions were made in JICA and other MCH handbook conferences in Japan, Indonesia and Thailand.So, feedbacks from multidisciplinary international experts are sincerely acknowledged for the development of this paper.

การศึกษาเพื่อพัฒนาและประเมินสมุดคู่มืออนามยแม่และเด็ก ในประเทศบังคลาเทศ

ชาห์ฟี อุลลาห์ บูยันห์
ยาสุฮิเดะ นากามูระ
นาห์อิด อักก์เตร์ คูเรส์ชิห์

บทคัดย่อ

ในระหว่างเดือนกันยายน พ.ศ. 2545 ถึงเดือนตุลาคม พ.ศ. 2546 ได้มีการศึกษานำร่องเพื่อพัฒนาสมุดคู่มืออนามัยแม่และเด็ก และเพื่อประเมินผลของสมุดคู่มือที่มีต่อแม่ในด้านความรู้ การปฏิบัติและการใช้บริการด้านสุขภาพอนามัยแม่และเด็ก ที่สถาบันฝึกอบรมอนามัยแม่และเด็กในเมืองดากา (Dhaka) ประเทศบังคลาเทศ เก็บรวบรวมข้อมูลโดยใช้วิธีสนทนากลุ่ม ทำการสำรวจ ข้อมูลก่อนและหลังการใช้สมุดคู่มือฯ

จากหญิงตั้งครรภ์ที่มาใช้บริการที่สถาบันฯ เป็นครั้งแรกจำนวน 600 คน สุ่มเลือกให้ 240 คน ได้รับสมุดคู่มือฯ และ 360 คน ได้รับบัตรสุขภาพที่ใช้กันอยู่ในปัจจุบัน ข้อมูลถูกวิเคราะห์โดยวิธี วิเคราะห์หลายระดับ ผลจากการสนทนากลุ่มย่อยเน้นให้เห็นถึงความจำเป็นของสมุดคู่มือฯ ในโครงการแม่และเด็กในประเทศบังคลาเทศ นอกเหนือจากนี้ ผลจากการสำรวจ ข้อมูลเชิงปริมาณ ได้พบข้อเสนอแนะว่าความรู้ด้าน อนามัยแม่และเด็กของแม่ที่ได้รับสมุดคู่มือฯ สูงกว่าแม่ที่ได้รับบัตรสุขภาพฯ นอกจากนี้ยังมีการปฏิบัติที่ดีกว่า ในด้านการดูแลอนามัยแม่และเด็กและ มีการใช้บริการด้านอนามัยแม่และเด็กสูงกว่าอีกด้วย สมุดคู่มืออนามัย แม่และเด็กได้ถูกพัฒนาโดยใช้วิธีศึกษา จากปัญหาการใช้ และข้อเสนอแนะจากผู้ใช้จึงเชื่อได้ว่าสมุดคู่มือฯ จะทำให้แน่ใจได้ว่าอนามัยแม่และเด็กในประเทศบังคลาเทศจะมีคุณภาพ

คำสำคัญ

อนามัยแม่และเด็ก สมุดคู่มือ การพัฒนา ประเทศบังคลาเทศ

REFERENCE

Albrecht Jahn et al. (2000), Maternity care in rural Nepal: a health service analysis, *Tropical medicine and international health*, vol. 5, no. 9, pp. 657-665.

Bhuiyan S.U. (2004), Report of 4th *International Symposium on Maternal and Child health Hand-books*, Thailand.

Bhuiyan S. (2002), Skilled Birth Attendance and MCH Handbooks: Unmet Challenges for Safe delivery in Bangladesh, Syn 'The Bulletin of Volunteer Studies', vol. 3, pp.33-45.

Choolani M. Ratnam SS. (1995), Maternal mortality: a global overview, *Journal of the Indian Medi-cal Association*, vol. 93, pp. 36-40.

Cynthia Barnes-Boyd et al.(2001), Promoting Infant Health through Home Visiting by a Nurse-Managed Community Worker Team, *Public Health Nursing*, Vol. 18, no.4, pp. 225-235.

Dinh V. (2001), Development of maternal and child health handbook: Vietnam experience, *Report of 2nd International Symposium on Maternal and Child health Handbooks*, Indonesia, pp. 101-104.

Hashizume A. (1998), MCH Handbook program as a core MCH service. *Report of International Symposium for Maternal and child health handbook initiatives*, Tokyo, pp. 89-93.

Hernawati I. (1998), Development and implementation of MCH handbook in Indonesia. *1st Interna-tional symposium for Maternal and child health handbook initiatives*, Tokyo, pp.10-21.

Hernawati I. (2001), Evaluation of maternal and child health handbook according to mothers percep-tion in Indonesia, *Report of 2nd International Symposium on Maternal and Child health Handbooks*, Indonesia, pp.61-69.

Isaranurug S. (1998), Maternal and Child Health Handbook in Thailand, *Report of International symposium for Maternal and child health handbook initiatives*, Tokyo, pp.30-35.

Isaranurug S. (2001), The Utilization of Maternal and Child Health Handbook among mothers of infant age 6-12 moths. *Thai Journal of Public Health*.

Ministry of Health and Family Welfare (1998), *Health and Population Sector Program (HPSP)* , HPSP Document Part I & II., Government of Bangladesh.

Ministry of Health and Family Welfare (2001), *Bangladesh National Strategy for Maternal Health*, Government of Bangladesh.

Ministry of Health and Family Welfare (1999), *Bangladesh Health Bulletin*, Government of Bangladesh.

Nakamura Y. (1998), Benefit of MCH Handbook program and its limitation, *Report of International symposium for Maternal and child health handbook initiatives*, Tokyo, pp.57-59.

Nakamura Y. (2001), The Utilization of MCH Handbook in Japan, *Japanese Journal of Public Health vol.*, 48(6), pp.486-494.

Ory F. (1998),. Mother and Child Health Handbook initiatives in the Netherlands, *1st International symposium for Maternal and Child health handbook*, Tokyo, pp.37-54.

Osaki K., Nakamura Y., Watanabe Y., Sato Y., Okuno H. (2000), Diffusion of maternal and child health handbook program in Indonesia, *Technology and Development*, vol.13,pp. 25-33.

Rodolf A. et al. (2003), which health services reduce maternal mortality? Evidence from ratings of maternal health services, *Tropical Medicine and International Health*, vol. 8, no. 8, pp.710-721.

World Bank (2001), Country facts on maternal, newborn and child health of Bangladesh.