Technical Brief
Global Promotion of Maternal and Child Health Handbook
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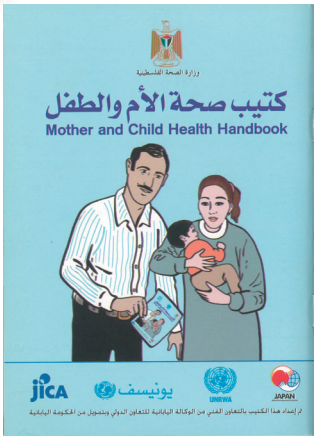
PALESTINE: MCH Handbook facilitates the communication between women, husbands and health workers



Maternal and Child Health Handbook, Palestine, 2007

Background

Maternal and Child Health (MCH) Handbook has been utilized as an essential part of the national program in Palestine since 2008. With security checkpoints and separation walls, Palestinian women face difficulties in visiting their regular hospitals or clinics. Their awareness on the importance of the timely care for them and their infants were also limited prior to the introduction of the MCH Handbook. The present study attempts to examine the effectiveness of the MCH Handbook in increasing women's knowledge and improving their practices in Palestine.

Table 1. Variables used in the study

Independent variables	Definition
MCH Handbook	Possession of MCH Handbook [Yes = 1; No = 0]
MCH Handbook * literate but no primary education	Interaction term of "woman who are literate but no primary education" [Yes = 1; No = 0] and "possession of MCH Handbook" [Yes = 1; No = 0]
MCH Handbook * primary education	Interaction term of "woman who completed primary education" [Yes = 1; No = 0] and "possession of MCH Handbook" [Yes = 1; No = 0]
MCH Handbook * secondary education	Interaction term of "woman who completed secondary education" [Yes = 1; No = 0] and "possession of MCH Handbook" [Yes = 1; No = 0]
First delivery	Women who are pregnant/delivers for the first time [Yes = 1; No = 0]
MCH Handbook * first delivery	Interaction term of "woman who are pregnant/delivers for the first time" [Yes = 1; No = 0] and "possession of MCH Handbook" [Yes = 1; No = 0]
Literate but no primary education	Women who can read but no primary education [Yes = 1; No = 0]
Primary education	Women who completed up to primary school [Yes = 1; No = 0]
Secondary education	Women who completed secondary school and above [Yes = 1; No = 0]
501-2000 NIS	Household income (monthly) 501-2000 NIS (low income) [Yes = 1; No = 0]
2001-3000 NIS	Household income (monthly) 2001-3000 NIS (middle income) [Yes = 1; No = 0]
More than 3000 NIS	Household income (monthly) more than 3000 NIS (high income) [Yes = 1; No = 0]
Before or after intervention	Before intervention =0, after intervention=1
Dependent variables	**Definition**
Know the date of next appointment	Whether women know the date of their next health service appointment [Yes = 1; No = 0]
Hours spend at the center	Hours spend at the health center (recall)
Breastfeeding	Whether they understand the importance of exclusive breastfeeding [Yes = 1; No = 0]
Rupture of membranes	Whether they know membrane ruptures are a danger sign during pregnancy [Yes = 1; No = 0]
ORS	Whether they know how to prepare and use oral rehydration salt [Yes = 1; No = 0]
Family planning	Whether they are familiar with modern methods of contraception [Yes = 1; No = 0]
Follow the immunization schedules	Whether they are willing to follow the immunization schedules for children [Yes = 1; No = 0]
Read MCH-related educational materials	Whether they have read any book about MCH at home [Yes = 1; No = 0]
Discuss child's health with health providers	frequency of communication with health providers [Always=2; Sometimes=1; Never=0]
Discuss child's health with husband	frequency of discussions with their husbands about child health. [Always=2; Sometimes=1; Never=0]

NIS:New Israel Sheqel (the currency of Israel)

DID based on two cross-sectional surveys

Two cross-sectional knowledge, attitude and practice (KAP) surveys were conducted, i.e. pre- and post-intervention by the MCH Handbook (January–February 2007 and March-April 2008). In both surveys, the levels of KAP among mothers were assessed, comparing intervention group (N_{pre}= 260; and N_{post}= 270) and control group (N_{pre}= 70; and N_{post}= 70).

Women of the intervention group received the MCH Handbook during the first ANC visit. They were advised to keep the Handbook at home and bring it when utilizing the subsequent healthcare services at all MCH stages, i.e. antenatal, delivery, postnatal, child immunizations, and child growth monitoring. The MCH Handbook was not distributed to women of the control group. Difference-in-difference (DID) linear regression models were applied to repeated cross-sectional datasets, by controlling potential confounding factors (e.g. women's age or the fixed effect of MCH centers). To examine the effectiveness of the MCH Handbook by women's educational background and previous birth experience, the interaction terms of the MCH Handbook with the dummy variables for educational levels and experience of delivery were included in the regression models.

MCH Handbook as a communication means

MCH Handbook users' knowledge on MCH (e.g. importance of exclusive breastfeeding and coping with danger signs during pregnancy) increased. Particularly, the increases in knowledge among less educated women were significant. In terms of the number of hours spent at MCH centers, the interaction term between first delivery and possession of MCH Handbook was positively associated ($P<0.05$: Table 2). This indicates that women undergoing first pregnancy

Palestinian mother and her infant with their MCH Handbook

and having the MCH Handbook are more likely to spend a longer time at health center. This may imply that the MCH Handbook serve as the useful catalytic tool that promotes adequate consultation, care and communication between healthcare providers and women. Those who both get pregnant for the first time and have the MCH Handbook are likely to have more frequent discussions with husbands and healthcare providers than those who don't. Thus, the MCH Handbook might have functioned as the powerful interface that helps fill the communication gaps between women, husbands and healthcare providers.

Conclusion

Improved communication can be a foundation for building up trust between women and healthcare providers. It also promotes better compliance in seeking MCH services and/or taking care of both women's and children's health at home. Women's communication with their husbands is likely to help them be better prepared for emergencies associated with pregnancy, delivery and child care. More educated women tend to have a greater number of information channels for accessing guidance on MCH than less educated women. Thus, the MCH Handbook may serve as the critical information source for less-educated women when being provided and guided by trained healthcare providers.

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Further readings

1. Hagiwara A et al. Is the maternal and child health (MCH) Handbook effective in improving health-related behavior? Evidence from Palestine. *J Public Health Policy* 2013; **34**: 31–45.

2. Palestinian Ministry of Health. *The Overview of MCH Handbook in Palestine.* Ramallah: MOH, 2012.

▼ **Table 2. Estimated impact of MCH Handbook on selected dependent variables**

Independent variable	Dependent variable				
	Hours spent at the center (n = 660)	Breastfeeding (n = 660)	Rupture of membranes (n = 660)	Discuss child's health with health providers (n = 659)	Discuss child's health with husband (n = 659)
MCH Handbook	-6.139	-0.121	0.2	0.28	0.271
	(0.64)	(1.14)	(2.04)**	(1.38)	(1.15)
MCH Handbook * Literate but no primary education	-4.812	0.323	0.083	0.526	-0.431
	(0.26)	(1.85)*	(0.63)	(1.39)	(1.34)
MCH Handbook * Primary education	8.562	-0.009	-0.104	-0.152	-0.148
	(0.83)	(0.08)	(1.07)	(0.70)	(0.62)
MCH Handbook * Secondary education	-2.336	0.019	-0.114	-0.391	-0.416
	(0.26)	(0.18)	(1.22)	(2.03)**	(1.83)*
First delivery	-34.884	-0.056	-0.02	-0.207	-0.232
	(3.19)***	(0.44)	(0.21)	(0.84)	(0.89)
MCH Handbook * First delivery	26.259	0.017	-0.113	0.51	0.488
	(2.14)**	(0.11)	(0.83)	(1.88)*	(1.71)*
Literate but no primary education	8.156	-0.265	-0.011	-0.075	0.114
	(0.75)	(1.63)	(0.09)	(0.30)	(0.49)
Primary education	-5.056	-0.007	0.086	-0.045	0.046
	(0.77)	(0.07)	(0.92)	(0.34)	(0.25)
Secondary education	-2.079	0.017	0.105	0.166	0.255
	(0.30)	(0.18)	(1.13)	(1.26)	(1.36)
R-squared	0.29	0.25	0.15	0.26	0.17

Robust t statistics are reported in parentheses. * significant at 10%; ** significant at 5%; and *** significant at 1%. Additional control variables included are: Dummy variables for mother's age categories, dummy variables for income categories, MCH center fixed effects, and a dummy for year 2008. Five out of 10 Dependent variables were selected from the original analysis.