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Research Article

Awareness of maternal health services among micro health insurance beneficiaries

Mohima Benojir Hoque*

Department of Public Health, ASA University Bangladesh (ASAUB), Dhaka, Bangladesh

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***Correspondence:**
Mohima Benojir Hoque,
E-mail: mohima12@yahoo.com

ABSTRACT

Background: Micro insurance for health is one method to address unmet health needs. Women are the primary and target market for micro- insurance for health. The study was conducted to assess the level of awareness on maternal health services among the micro health insurance beneficiaries.
Methods: This cross-sectional study was done on 230 micro health insurance beneficiaries and 223 non-insured. The beneficiaries belonged to SAJIDA Foundation under Keraniganj thana and the non- insured belonged to Basila under Mohammadpur thana of Dhaka district. Purposive sampling technique was employed to select the sample and data were collected by face to face interview using a structured interview schedule.
Results: The mean age ± SD of the women were 28.1 years ± 5.7 and 24.8 years ± 4.9 in program and comparison area respectively. The mean family income of the respondents of program and comparison area were 14489.13 Tk ± 12641.17 and 6814.35 Tk ± 3010. The women of the program area were more aware about the different components of maternal health than that of comparison area. Majority (93.9%) of women in program area were fully aware of maternal health services than that of comparison area (55.6%). Statistically significant ($P < 0.001$, $\chi^2 = 90.72$, $df = 2$) association was found between micro health insurance and level of awareness.
Conclusions: Study shows higher proportions of women in programme area were aware on different components of maternal health services than in comparison area. Based on the study findings it can be recommended that steps should be taken to further improvement of the level of awareness on the factors influencing maternal health and the comparison area needs special attention to improve maternal health.

Keywords: Awareness level, MHI (Micro health insurance), ANC (Antenatal care), PNC (Postnatal care)

INTRODUCTION

Micro insurance for health is one method to address unmet health needs. It is an emerging sector, strongly linked to the micro credit movement in Bangladesh.[1] Women are the primary and target market for micro-insurance for health. In most cases in Bangladesh, household medical services covered by insurance are accessed through female card-holders. In the case of facilities established by the micro-insurance schemes for health, clinics are largely run by women and women are trained as professional health workers to service the majority of female clientele.[2] Through micro-insurance facilities for health and low or no-cost services, women are able to independently access health services without assistance from male family members either for funding or transportation. Women can go a local clinic and use an insurance card to receive health services.[1] In general, the insurance packages have been designed to include basic service elements of general consultation and treatment, selected ante-natal and post-natal care, simple preventative and curative care including drugs, low-cost

pathology and other tests, and referral services to higher level hospitals and clinical facilities. Assisted normal deliveries and surgical deliveries are often included as well. Women in Bangladesh are relatively disadvantaged in terms of their economic, social and health conditions compared to many other developing countries.[3] In Bangladesh the maternal health scenario is quite alarming. Maternal mortality ratio, deaths per 100,000 live births is 338 in 2008. According to BDHS 2007, only 52% of all pregnant women receive ante-natal care, only 15% of all births take place at a health facility and only 30% received post natal care from a qualified provider.[4,5] But the woman's memberships in a microcredit/ micro finance have been found to yield positive effects on their health seeking behaviors in Bangladesh. Because, traditional health insurance markets are almost entirely absent in the rural areas of Bangladesh. There is no social health insurance scheme even in the formal sector in Bangladesh, and the government has not been able to meet the health care needs of the rural poor despite having a well-established health care delivery network.[6] A health care system aiming to reduce morbidity and mortality related to pregnancy must focus on maternal and newborn health. The health care that a woman receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and the child. Bangladesh has committed to the Millennium Development Goals (MDGs) and has developed various policies and strategies for improving maternal and newborn health. The MDG aims to reduce maternal mortality by 75 percent by the year 2015.[4] The state of maternal health in a nation can be characterized by numerous factors, such as outcome measures like maternal mortality and morbidity rates or maternal nutrition status etc. These indicators include: The levels of antenatal and postnatal care, Contraceptive Prevalence Rate (CPR), coverage of Tetanus Toxoid (TT) vaccination, proportion of deliveries conducted in health facilities by trained birth attendants or proportion of unwanted pregnancies.[7,8] There are several Non-Government Organization (NGO) in Bangladesh who provide micro health insurance in order to protect their member from health risks, which helps to prevent the economic downfall.[2] Among those SAJIDA Foundation plays the double role of insurer as well as service provider that means it provides health insurance through its own medical facility with support from a private medicine firm. According to the annual report of SAJIDA Foundation- 2009, about 99% of the micro finance members are female and their enrolment age range is 20 to 55 years.[9] Micro health insurance scheme offering both curative and preventive healthcare and health promotion services may increase the health status of the participating household via increased health awareness, improved health practices and increased utilization of formal health care.[6] The health insurance scheme of SAJIDA Foundation has been designed to include basic service elements of free general consultation and treatment, selected antenatal, delivery and postnatal care, simple preventive and curative care including drugs, low-cost pathology and other investigation. Assisted normal deliveries and surgical deliveries are also included. Individual family members, especially women, make premium payments for policies that cover the whole family including reproductive health state.[10] On the other hand, most of the NGOs under micro health insurance scheme have their own health care facilities which also play an important role on the health status of their clients.[2] The findings of this study will be utilized for further policy making regarding this issue.

METHODS

A cross-sectional study was conducted to assess the level of awareness about maternal health services among micro health insurance beneficiaries. Purposive sampling technique was used to select the sample. Data were collected from 453 women; among them 230 were micro health beneficiaries and 223 were non beneficiaries. The cases were selected from Keraniganj, where Sajida Foundation's micro health insurance program was exists. The comparison group was selected from Basila, where any form of micro health insurance and microcredit were not exists. A pretested structured questionnaire was used as data collection instrument. A face to face interview was employed to collect the data. Both descriptive and inferential statistics were done to analyze the data.

RESULTS

Study revealed that the mean age of the micro health insurance recipients was 28.1 years ± 5.7 and that of the non-recipients was 24.8 years ± 4.9. Educational level of the respondents was not same. The illiteracy rate among micro health insurance recipients and that of non MHI recipients were 29.1% and 46.2% respectively. Among the respondents of MHI beneficiaries, 45.7% had primary level education. However, in case of micro health insurance non - recipient, having primary level education was 40.8%. The mean family income for MHI recipient was 14489.13 ± 12641.17 and MHI non- recipient was TK. 6814.35 ± 3010. The mean expenditure of MHI recipient was TK. 10725.65 ± 5262.88 and MHI non-recipient was TK. 6242.15 ± 2721.22 (Table 1).

Awareness on antenatal care visit was not satisfactory among the respondents of both the area. The percentage was 11.7% and 13.5% in program and comparison area. However, awareness on tetanus toxoid intake and postnatal care visit were satisfactory among the respondents of program area than that of comparison area. Association was statistically significant (Table 2).

The respondents of the program area were more aware about all the danger signals and other complications during pregnancy than that of comparison area. In program area 65.5% of the respondents were aware about severe headache and blurry vision as danger signals during pregnancy whereas in comparison area it was only 33.64% (Table 3).

Table 1: Distribution of the respondents according to their socio-demographic characteristics.

Characteristics	Program area (N=230)	Comparison area (N=223)
Age (years)		
15-19	3 (1.3)	21 (9.4)
20-24	56 (24.3)	84 (37.7)
25-29	83 (36.1)	75 (33.6)
30-34	53 (23.0)	29 (13.1)
35-39	21 (9.1)	10 (4.5)
40-44	11 (4.8)	3 (1.3)
45+	3 (1.3)	1 (0.4)
Mean ± SD (years)	28.08 ± 5.7	24.75 ± 4.9
Education level		
Illiterate	67 (29.1)	103 (46.2)
Primary (I-V)	105 (45.7)	91 (40.8)
Secondary and above	58 (25.2)	25 (11.2)
Income (Tk.)		
Up to 5000	6 (2.6)	72 (35.3)
5001-10000	97 (42.2)	117 (57.4)
10001-15001	62 (27.0)	12 (5.9)
15000+	65 (28.3)	3 (1.5)
Mean ± SD (Tk.)	14489.13 ± 12641.17	6814.35 ± 3010.13
Expenditure (Tk.)		
Upto 5000	15 (6.5)	88 (43.1)
5001-10000	133 (57.8)	109 (53.4)
10001-15001	51 (22.2)	5 (2.5)
15000+	31 (13.5)	2 (1.0)
Mean ± SD	10725.65 ± 5262.88	6242.15 ± 2721.22

Table 2: Distribution of the respondents by their basic awareness on antenatal and postnatal care visit.

ANC & PNC visit	Program area N=230	Comparison area N=223	P value, χ^2, df
ANC visit			
Incorrect	203 (88.3)	193 (86.5)	0.582 (0.302, 1)
Correct	27 (11.7)	30 (13.5)	
TT			
Incorrect	161 (70.0)	187 (83.9)	0.001 (12.21, 1)
Correct	69 (30.0)	36 (16.1)	
PNC			
Incorrect	186 (80.9)	209 (93.7)	0.001 (16.75, 1)
Correct	44 (19.1)	14 (6.3)	

Note:
Incorrect: ANC visit less than 3; Correct: ANC visit 3 or more
Incorrect: PNC visit less than 3; Correct: PNC visit 3 or more

Table 3: Distribution of the respondents by their awareness on danger signals and other complications during pregnancy.

Danger signals and other complications	Program area (N=230)	Comparison area (N=223)
Danger signals		
Severe headache and blurry vision	149 (65.35)	73 (33.64)
Eclampsia	103 (45.18)	12 (5.53)
Unsmooth delivery / delayed delivery	133 (58.33)	50 (23.04)
Excessive bleeding	23 (10.09)	5 (2.30)
High fever	133 (58.33)	41 (18.89)
Other complications		
High blood pressure	17 (7.46)	9 (4.15)
Oedema	150 (65.79)	64 (29.49)
Abortion	1 (0.44)	2 (0.92)
Reduce/absent fetal movement	8 (3.51)	3 (1.38)
Don't know	5 (2.19)	11 (5.07)

The respondents of the program area were more aware about some of the serious health problems of new born. Those were yellow coloration of the skin, birth asphyxia, discharge from umbilical cord and eye (Table 4).

Table 4: Distribution of the respondents by their awareness on newborn serious health problems.

New-born serious health problems	Program area (N=230)	Comparison area (N=223)
Difficult/Fast breathing	45 (21.43)	45 (21.43)
Asphyxia	31 (14.76)	10 (10.64)
Less food practice	53 (25.24)	18 (19.15)
Poor sucking	67 (31.90)	41 (43.62)
Yellow coloration skin/Eye	107 (50.95)	23 (24.47)
Discharge from umbilical cord	60 (28.57)	0 (0)
Discharge from eye	18 (8.57)	0 (0)
Very small baby	6 (2.86)	5 (5.32)
Convulsion	18 (8.57)	2 (2.13)
Excessive vomiting	4 (1.90)	2 (2.13)
Others	30 (14.28)	21 (22.34)

Multiple responses considered

In study questionnaire, the women were asked about antenatal and postnatal care visit, tetanus toxoid intake and newborn serious health problems. The level of awareness was categories on the basis of those responses. Majority (93.9%) of respondents in program area were fully aware about maternal health services than that of comparison area (55.6%). Statistically significant (P <0.001, χ^2= 90.72, df = 2) association was found between areas and level of awareness (Table 5).

Table 5: Distribution of the respondents by their level of awareness on maternal health services.

Awareness on maternal health services	Program area (N=230)	Comparison area (N=223)	P value, χ^2, df
Not aware	4 (1.7)	53 (23.8)	0.001 (90.72, 2)
Partially aware	10 (4.3)	46 (20.6)	
Fully aware	216 (93.9)	124 (55.6)	

Note: Fully aware: If
a) Knew all the 5 danger signals
b) Could say that TT vaccination were necessary
c) Could name six out of 10 serious illnesses of new born.
Not aware: Could not say anything about the above
Partially aware: Otherwise

DISCUSSION

The excess female mortality begins at childbearing age and there are wide disparities in fertility and mortality between rural and urban areas. The health care that a woman receives during pregnancy, at the time of delivery and soon after delivery is important for the survival and well-being of both the mother and the child.[3] Previously, no study was conducted regarding this issue in Bangladesh. Therefore the attempt was taken to compare the level of awareness about maternal health services between micro health insurance beneficiaries and non-insurers. The study findings suggest that micro health insurance may contribute to improve the level of awareness on maternal health services. Statistically significant association was observed in-terms of awareness about tetanus toxoid intake (P <0.001, χ^2 = 12.21, df = 1) and postnatal care (P <0.001, χ^2 =16.75, df = 1) visit. Another study shows that micro health insurance placement contributes to increasing awareness of important health problems and to the probability of seeking formal care.[6] Majority (93.9%) of the respondents in program area were fully aware about maternal health services than that of comparison area (55.6%). Statistically significant (P <0.001, χ^2 = 90.72, df = 2) association was found between areas and level of awareness (Table 5). A study in Philippine shows that insured person reported higher hospitalization rates, higher rates of professionally - attended deliveries, lower rate of delivery at home and alleviate underutilization of heath care.[12] In rural Senegal the members of a health insurance scheme have a higher probability of using hospitalization services than non-members and pay substantially less when they need care.[13] So, micro health insurance placement can play an important role to improve the maternal health state.

CONCLUSION

Micro health insurance aims to improve health status of micro finance beneficiaries who are usually deprived from basic health care. This study tried to assess the level of awareness on maternal health services among the women who were micro health insurance beneficiaries. Study shows higher proportions of women in project area were aware on different components of maternal health services than in comparison area. Comparison by various components such as danger signals, other complications during pregnancy and serious health problems of new-born support the above views of higher proportion of insurers were aware on those than that of non-insurers. Statistically significant association was observed between both the areas and level of awareness. Based on the study findings it can be recommended that steps should be taken to further improvement of the level of awareness about the factors influencing maternal health through health education and the non-project area needs special attention to improve maternal health.

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