

THE CONTRIBUTION OF A HEALTH EXTENSION PROGRAMME IN THE UTILISATION OF MATERNAL HEALTHCARE SERVICES IN THE MECHA DISTRICT OF THE AMHARA REGION, ETHIOPIA

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ABSTRACT

The purpose of this study was to identify the contributions made by the Health Extension Programme (HEP) to influence the utilisation of maternal healthcare services at primary healthcare units in the Mecha district, Ethiopia.

A non-experimental quantitative descriptive research design was conducted. This was structured into four phases. In phase one the continuum of care and quality of documentation was audited from 975 antenatal cards documented in three health centres from 1 July 2010 to 30 June 2013. In phase two 304 women were interviewed about their knowledge on the available services, the quality of maternal healthcare provision and factors that hinder the utilisation of maternal healthcare services. In phase three the opinions of all midwives and health extension workers (HEWs) were obtained with self-administered questionnaires from three health centres and 15 health posts respectively. In phase four the guidelines were developed.

The findings revealed that the continuum care of maternal healthcare services was ineffective; the quality of documentation was poor. The majority of respondents were more knowledgeable about other HEP packages than maternal healthcare services. The advocacy and dissemination of information about the maternal healthcare services proved to be inadequate. The relations between the clients and the healthcare providers at the health centres were unsatisfactory.



The study developed guidelines based on the findings. The study recommended that a strong antenatal care follow-up tracking mechanism be urgently provided, that providers be knowledgeable, that community midwives be trained and accredited to give skilled delivery at the health posts, and that the recording tools at the health post be reviewed and developed.

Keywords: antenatal card; health extension programme; maternal healthcare; primary healthcare unit; quality of documentation

INTRODUCTION AND BACKGROUND INFORMATION

Maternal health refers to the health of women during pregnancy, delivery and the post-partum period. Globally, 80 per cent of all maternal deaths are a direct result of complications arising during pregnancy, delivery or the post-partum period. According to the World Health Organisation (2010, 14), each year 358 000 women die due to complications developed during pregnancy and childbirth. Ninety-eight per cent of these deaths occur in the developing world. In Africa, 1 in 16 women die during pregnancy or childbirth. Seventy-five per cent of maternal deaths occur during childbirth and the post-partum period.

According to the Ethiopia Demographic Health Survey (EDHS), 2.9 million women give birth every year in Ethiopia. Of these, 90 per cent of deliveries occur at home. The high maternal mortality rate in the country implies that 20 000 mothers die each year (EDHS 2011, 267).

The Ethiopian Federal Ministry of Health (FMOH) started the HEP in 2003 to improve access to and the utilisation of healthcare services in rural communities with special attention to “maternal healthcare services”. This innovative HEP was aimed at providing universal coverage of primary healthcare and developing a cadre of HEWs who are to provide basic preventive and curative health services. One of the responsibilities of the HEWs was creating health-seeking behaviour for pregnant women to utilise antenatal care (ANC), delivery and postnatal care (PNC) services (FMOH 2007, 2).

The FMOH has deployed 31 135 HEWs assigned to each health post (HP) within each rural kebele (the smallest administrative unit) in the country. The number of HPs has been increased from 6 191 in 2005 to 15 668 in 2012 and the number of health centres (HCs) from 635 in 2005 to 2 999 in 2012. The primary health service coverage in the country was 92 per cent. A total of 26 223 nurses have been deployed at HCs, and two midwives have been assigned to each HC (FMOH 2009, 17).

STATEMENT OF THE RESEARCH PROBLEM

The HEP has been implemented in Ethiopia since 2003, with two HEWs deployed in each HP, two midwives assigned to each HC, and the potential primary health service coverage increased to 92 per cent, but still the maternal healthcare services remained underutilised. Nine out of ten deliveries occurred at home. Only six per cent of live

births received a postnatal check-up (EDHS 2011, 120). The research problem is the identification of the contribution made by the HEP to the utilisation of maternal healthcare services in Ethiopia.

THE PURPOSE OF THE STUDY

The purpose of this study was to identify the contribution made by the HEP to influence women to utilise maternal healthcare services, and to develop guidelines to assist the healthcare professionals to provide a satisfactory standard of care at primary healthcare units (PHUs). The HEP is a healthcare programme that needs reviewing so that the performance of the programme can be assessed.

OBJECTIVES

The objectives of this study were to audit the continuum of care and the quality of documentation in the utilisation of maternal healthcare services at PHUs, to describe the contribution of the HEP to influence the utilisation of maternal healthcare services, to describe the opinions of midwives and HEWs on the contribution of the HEP to the utilisation of maternal healthcare services, and to develop guidelines that could enhance the utilisation of maternal healthcare services in the Mecha district.

DEFINITIONS OF KEY CONCEPTS

Antenatal card is the synonym for “FMOH integrated antenatal, delivery, newborn and postnatal cards”.

Documented is the prescribed activities in ANC that were provided, whereas not documented means that the services were not provided.

Primary healthcare unit is comprised of one HC and five satellite HPs. The HC serves 25 000 people and each HP 5 000 people.

Quality of documentation is the recorded information prescribed in the ANC card regarding danger signs during pregnancy, birth preparedness, and decisions about the place of delivery, which derived from discussions with pregnant women during their attendance of ANC.

RESEARCH METHODOLOGY

The study adopted non-experimental quantitative descriptive research design, structured into four phases. The first phase audited the continuum of care and quality of documentation of the activities expected in the antenatal card at the HC. The second phase assessed the contribution of the HEP to the utilisation of maternal healthcare

services, and the third phase obtained the opinions of midwives and HEWs on the contribution of the HEP to the maternal healthcare services. The fourth phase developed guidelines that could enhance the utilisation of maternal healthcare services.

In this study, ethical clearance was given by the Higher Degrees Committee of the University of South Africa, the Department of Health Studies, and permission was granted by the Amhara Regional Health Bureau and the Mecha district health office in Ethiopia.

PHASE 1

The population and sample was the total number of antenatal cards of women initially booked for ANC from 1 July 2010 to 30 June 2013 from the three selected HCs. In this phase Birkat, Merawi, and Wotetabay HCs were selected by simple random sampling of 1, 4, and 7 from the total of eight HCs in the district. The total sample size of ANC cards was computed by using the rule of thumb method and the researcher used 20 per cent of the total population (4 875 antenatal cards). The data collectors were degree nurses with experience in data collection and who were trained by researchers on the specific checklist. These records were sequential, containing serial medical registration numbers and the time of the visit as the month, date and year. The ANC cards were selected every fifth interval of the total of 4 875 ANC cards, and the total sample size was 975.

Data Collection and Analysis

The data were collected on 14–19 September 2013. In this phase, the checklist was used to audit the continuum of maternal healthcare services, and to check the quality of documentation which had to indicate that the maternal healthcare activities were recorded. The collected data were entered, cleaned and analysed by using computer software SPSS version 20.0. The analysed data were presented in tables, graphs and bar charts.

PHASE 2

Population and Sampling

The target population was mothers with babies aged 0–11 months. Systematic sampling was applied to the list of mothers with babies aged 0–11 months in the catchments areas of each selected HC, whose lists were derived from the census that had been conducted in the area.

The sample size was calculated by using a single proportion formula (80% of the power and 95% of confidence intervals with 5% of the significance level) from the target population, and the total sample size was 304 respondents.

Data Collection and Analysis

A structured interview schedule was used to collect data from 304 mothers with face-to-face interviews from 15–24 October 2013. The interviewers were students who completed grade 10 and who had experience in data collection. They enumerated the mothers before data collection.

The data were entered, cleansed, and analysed by using the SPSS version 20.0. Frequencies, rates and ratios were calculated for all variables. A chi-square test and p value with 95 per cent confidence intervals were also used to determine the level of significance. In this study the right of the participants to anonymity and confidentiality were ensured. Both verbal and written consent was obtained before the face-to-face interviews were conducted.

PHASE 3

Population and Sampling

The target population comprised all midwives who were working from Birkat, Merawi and Wotetabay HCs (two midwives in each HC) and all HEWs who were working in the catchment areas of these selected HCs which had 15 HPs (each HC had five HPs in its catchment area, and two HEWs were employed at each HP). The sample size was 36 (six midwives and 30 HEWs).

Data Collection and Analysis

The data were collected on 13 and 14 December 2013. The data were collected by using self-administered questionnaires. Both open- and closed-ended questions were used in the questionnaires. The analysed data were presented in tables, graphs and bar charts. In this study the rights of the health institutions, midwives and HEWs had been observed. Written permission to collect data from the Midwives and HEWs was sought from the Regional Health Bureau and district health offices of the study area, and duly granted.

PHASE 4

The researcher developed the guidelines from the evidence found in phases 1, 2 and 3 (see in phase 4).

RESULTS

Phase 1

The quality of the documentation was measured through determining whether or not the standard maternal healthcare activities prescribed in the antenatal card had been

recorded. Of the 975 women who initially started the ANC from the three selected HCs, most of them skipped the second, third or fourth ANC follow-up, and only eight per cent attended the continuum care until the fourth ANC. Only 15 per cent were documented as delivered at the health facilities (see table 1).

Table 1: Continuum of maternal healthcare documentation (N = 975)

Women booked for ANC	Documented (n)	Documented (%)
1 st ANC attendees	975	100
2 nd ANC attendees	412	42
3 rd ANC attendees	202	21
4 th ANC attendees	81	8
Delivery at health facilities	143	15
PNC attendees	147	15
Mean	197	20

Socio-demographic and Obstetric Information in Maternal Healthcare Records

Documentation of socio-demographic and obstetric information was found in 87 per cent of the ANC cards. The recording of tetanus toxoid immunisations was documented in 85 per cent of ANC cards. The provision of information to the pregnant women about the danger signs in pregnancy was documented in 51 per cent of the ANC cards. The provision of information on birth preparedness and the planning for the place of birth was recorded in 49 per cent and 28 per cent of the ANC cards respectively.

The likelihood actions such as health promotion and supplementation were documented in only 45 per cent of the cases. Laboratory tests such as haemoglobin level testing and syphilis screening were documented below 50 per cent. The HIV test was documented in 71 per cent of the ANC cards, but the partner test was documented in only 32 per cent of the cases. The prescription of iron supplements was documented in 46 per cent of the ANC cards, and only 5 per cent were documented as having been supplied with mebendazole during their ANC.

Phase 2

Demographic Information of the Respondents in Phase 2

Of the 304 respondents, 41 per cent (125) were in the age group of 21–25 years, 55 per cent (164) between 26–30 years, and the least number of respondents 5 per cent (15) were in the age group 31–35 years. None were 41 years old or older. The education

statistics indicated that 73.4 per cent of the respondents had no education at all, while 9.2 per cent were able to read and write, 15 per cent had a primary school education and 2.3 per cent had completed their secondary school education.

The respondents' knowledge

Of the 304 respondents, the majority knew about the type of services such as environmental health, personal hygiene, immunisation, malaria case management and intestinal parasite treatment that were offered by the HEWs at the HPs. But only 36 per cent of the respondents knew about the delivery and PNC services that were offered by HEWs at the HPs. A total of 51 per cent of the respondents reported that they had knowledge of the danger signs during pregnancy that were identified by the FMOH, while others reported that they had limited knowledge of the danger signs or had no such knowledge.

The Provision of ANC services

Of the 304 respondents, 208 booked for ANC at least once, while 96 did not book at all. The 208 respondents were interviewed about their level of satisfaction and the adequacy of information received during the services delivered at the HCs.

Levels of Satisfaction with the Service Delivery at HCs

Of the 208 respondents, 50 per cent were satisfied with the level of service delivery at the HC. A total of 26 per cent reported that they were dissatisfied and 24 per cent were neutral (see table 2).

Table 2: Levels of satisfaction with the service delivery at HC (N = 208)

Levels of satisfaction	Dissatisfied	%	Neutral	%	Satisfied	%
Welcome attitude	108	52	17	8	83	40
Friendly approach	79	38	50	24	79	38
Offering a set of treatments	59	28	82	40	67	32
Respectful communication	97	46	57	27	54	26
Effective communication	45	22	50	24	113	54
Listening skills	31	15	43	21	134	64
Patience of the service provider	77	37	52	25	100	48
Kindness of the service provider	18	8	63	31	127	61
Performance of physical assessment	17	8	15	7	176	85
Communication among staff	38	18	71	34	99	48
Mean	57	26	51	24	103	50

Adequacy of Information received during ANC at HCs

Of the 208 respondents, 55 per cent indicated that they received adequate information about their pregnancy. A total of 62 per cent received information on and feedback regarding their laboratory tests, and 58 per cent received health education about the benefits of ANC.

Only 49 per cent of the respondents received adequate information on what danger signs to look for and what to do if they suspected something unusual, while 41 per cent did not receive adequate information and 10 per cent were neutral in this regard.

The Provision of Delivery and PNC Services

Of the 304 respondents, 96 delivered their youngest child at HCs. In this study none of the respondents delivered at the HPs. Of the 96 respondents that delivered their youngest child at the HCs, only 62 per cent received the services they expected during labour. Only 26 per cent utilised the PNC offered at the HP during the postnatal period of their youngest child, and 38 per cent utilised the PNC services offered at the HCs.

The reasons for not delivering and attending PNC at the HP/HC

Of the 304 respondents, none delivered at the HPs. The main reason for 56 per cent of the respondents was that the provision of the service was inconvenient and 44 per cent of the respondents replied that they had limited knowledge of the services offered at the HPs.

Of the 304 respondents, 208 did not deliver their youngest child at the HCs. Their main reasons were that the health providers had unfriendly relations with them (50%) and that the HCs were too far away (35%). A total of 15 per cent remained neutral.

Phase 3

Demographic Information of the Respondents in Phase 3

Of the 36 respondents, 75 per cent were aged 21–25 years, eight per cent were between 26 and 30 years, and 17 per cent were between 36 and 40 years. A total of 47 per cent had five or more years' working experience at HCs/HPs while 53 per cent had fewer than five years' working experience at HCs/HPs.

The findings are commensurate with those derived from the data collected from the ANC cards in phase 1, and from the mothers with babies aged 0–11 months in phase 2. The midwives and HEWs testified that the HEP had not succeeded in improving the utilisation of maternal healthcare services for delivery and PNC in the Mecha District. These findings supported the results in phases 1 and 2.

The midwives and HEWs confirmed that a poor referral system to maternal healthcare services, the many priorities in the HEWs' work areas, no direct relation

between HEWs and midwives, the lack of knowledge and experience on the way to approach mothers to strengthen their satisfaction level, and unfriendly relations between clients and healthcare providers were the main reasons for the low quality of maternal healthcare services at the Mecha district.

The midwives and HEWs suggested that training and accreditation be provided to the community midwives who work with the HEWs to give skilled delivery at the HPs, that the standard of record-keeping at the HCs and HPs be improved through training, and that a strong ANC follow-up tracking mechanism be urgently provided.

DISCUSSION OF RESEARCH RESULTS

The discussion of results will be done according to the phases as given above.

DISCUSSION IN PHASE 1

The fact that so many pregnant women skipped the second, third, or fourth ANC and failed to utilise health facility delivery and PNC suggests that the midwives were not disseminating appropriate information to pregnant women in their initial visit to ANC. This inadequate provision of information could be perceived as a factor influencing pregnant women to not utilise the continuum care of maternal healthcare services offered in the Mecha District. The quality of ANC can be measured by the qualifications of the provider and the number and frequency of the ANC visits (Dagne 2010, 23–24).

The documentation showed that information about the danger signs was given to half of the pregnant women. Birth preparedness was documented in less than half (49%) of the ANC cards. The planning of choosing where to give birth was documented at only 28 per cent of the pregnant women who attended ANC in the Mecha District, 72 per cent did not have such a plan. Therefore, as these important issues were not documented adequately, the quality of documentation in the antenatal card records in the Birkat, Merawi and Wotetabay HCs in the Mecha District was inefficient.

The performance of routine laboratory tests is another main component of maternal healthcare services. The haemoglobin tests and syphilis screening were documented only on 40 per cent and 29 per cent of the ANC cards respectively. Early detection and management of anaemia during ANC can improve certain pregnancy outcomes (Reynolds, Wong and Tucker 2006, 7). In this study, the haemoglobin level of 60 per cent of the pregnant women was not known. This indicates that it was not checked and it was not known whether the pregnant women had iron deficiency anaemia. One of the FMOH strategies in the roadmap for accelerating the reduction of maternal mortality in Ethiopia was increasing the proportion of pregnant women with iron supplementation during their pregnancy from 10 per cent to 86 per cent by the year 2015 (FMOH 2012, 17). As mentioned above, 73 per cent of the pregnant women who attended their first ANC were not screened for syphilis, and it was not known if their pregnancy outcomes

were related to syphilis infection. In this regard the contribution of the HEP to the iron supplementation and syphilis screening of pregnant women in the Mecha District at PHU level was unsatisfactory. Laboratory test results are essential to provide quality maternal healthcare services (FMOH 2011, 21).

DISCUSSION IN PHASE 2

In this study, more respondents knew about environmental sanitation and personal hygiene, and family planning counselling offered at the HPs than about the delivery and PNC services. Respondents had limited knowledge about obstetric danger signs during pregnancy, delivery and post-partum stages. This information was also reported in the EDHS (2011, 124) and by Feleke, Woldie and Fikru (2013, 13). In addition, this study showed that the knowledge of respondents was not uniform. This indicated that the health providers in the Mecha District did not use a standard checklist or guideline when informing their clients about the obstetric danger signs during pregnancy. Therefore, the contribution of the HEP to the utilisation of maternal healthcare was insignificant.

Some of the characteristics of quality maternal healthcare services are the display of a welcoming attitude to clients, the offering of seats to patients, effective communication with patients, patience with clients, and the provision of general information as well as pregnancy-related information (Tayelgn, Zegeye and Kebede 2011, 17). In this study, the respondents' general satisfaction with maternal healthcare services was only 50 per cent. Therefore, the community leaders, health managers and HEWs should work closely with the community to increase the awareness of the community to utilise maternal healthcare services and improve client satisfaction.

Of the 304 respondents, none delivered at the HPs. The services of the HPs were not well equipped for delivery, and only offered a single room, but no waiting area, no water, and no electricity. The community perceived HEWs as not being competent to provide maternal healthcare services. HEWs on the other hand were overloaded with work and had priorities to other HEP packages.

Another reason was that the respondents had limited knowledge on maternal healthcare services offered at the HPs. In this regard, the community leaders and HEWs should focus more on encouraging women to utilise the HPs for ANC, delivery and PNC during their frequent visits to the communities and to the women's homes (Hailu, Gebremariam and Alemseged 2010, 6).

Unfriendly relations with the service providers were another important reason for not using the delivery and PNC services at the HC. This finding supports the study by Solomon, Mark, Merijn, Yilma and Michael (2013, 27) that women's preference for home delivery has been shaped by their negative past experiences of unfriendly relations with healthcare providers. Thus, this study suggests the provision of capacity building for midwives to be more knowledgeable thereby maximising the satisfaction of their clients during the provision of maternal healthcare services.

DISCUSSION IN PHASE 3

The midwives and HEWs agreed that adequate knowledge of the maternal healthcare services, the danger signs in pregnancy, friendliness in the provision of the services and birth preparedness could have influenced the women's utilising the maternal healthcare services. These findings were congruent with the findings in phase 2 of this study. Similar findings were reported in Solomon et al (2013, 27).

Furthermore, the findings in phase 3 indicated that the HEWs focused more on environmental and personal hygiene and the prevention of diseases such as malaria and HIV/AIDS than on maternal healthcare services, and that the HEWs lacked the experience to give delivery and PNC services. The midwives and the HEWs confirmed that the HEWs had work overload, priorities to other HEP packages, and were regarded as not being competent to provide delivery and PNC services (EDHS 2011, 128).

Phase 4

Development of Guidelines

The guidelines were presented with a synthesis of the conclusions drawn from the findings in phases 1, 2 and 3. In each phase the applicable concluding statements were identified and summarised from various categories and subcategories of the data to support the recommended activities in the guidelines.

Guideline 1:

Promote women's knowledge and practices to maximise the utilisation of maternal healthcare services

The recommended activities were: To promote a role for the HEWs in encouraging women to have birth plans and to deliver in the health facilities, to designate as role models women who have themselves benefited from the maternal healthcare services and who are willing to educate others, and to design strategies and materials to create awareness among pregnant women regarding the obstetric danger signs during pregnancy, childbirth, and the post-partum period.

Guideline 2:

Improve the quality of healthcare provider practices by using the documentation system

The recommended activities were: To add integration training in documentation to the existing training programmes to increase the midwives' capacity, to review the tools that are used for maternal healthcare services at the HP level, and to develop and use a standard maternity record with an agreed minimum data set.

Guideline 3:

Maximise the quality of healthcare provider practices to ensure client satisfaction in the utilisation of the maternal healthcare services

The recommended activities were: To provide capacity building for midwives in particular so that they can develop a genuinely welcoming attitude to their clients, offer them a set of treatments, be respectful, be understanding of their problems, develop listening skills, and be patient and kind, in order to maximise the satisfaction of their clients during the provision of maternal healthcare services.

Guideline 4: Promote the quality of referral practices in the utilisation of the maternal healthcare services

The recommended activities were: To train staff on referral practices and the establishment of a feedback mechanism, to establish and utilise appropriately the criteria for referrals and referral routes at the community and HP levels, to strengthen the referral system from the HPs to the HCs, and to prepare and make available standardised referral slips at local level in the Amharic language.

Guideline 5:

Maximise the continuum care with respect to ANC, childbirth and PNC practices at the PHU

The recommended activities were: To inform all women about the importance of the next ANC appointment for their own and their baby's health, to inform the clients about the purpose of any laboratory test before it is performed, and to ensure that the client has understood this information and has sufficient time to make an informed decision.

CONCLUSION

The conclusion, based on phase 1 of this study, was that the utilisation of the services did not meet the expectations of the HEP in the Mecha District. For more than 50 per cent of the women who were booked into the three HCs in the Mecha District, the documents failed to indicate that they had received health education about the obstetric danger signs, birth preparedness and deciding about the place of delivery. In phase 2 the study indicated that unfriendly relations of maternal healthcare services provided deterred the women from using these services. In phase 3 of this study the midwives and HEWs concurred with these findings by indicating that they had limited knowledge of how to satisfy their clients and that they provided inadequate health education to their clients during their maternal healthcare services. Therefore, this study concluded that the HEP contribution to the utilisation of maternal healthcare services was insignificant.

RECOMMENDATIONS

This study recommended that the quality of documentation be improved, that continuous training be provided to enhance skills of midwives and HEWs in the provision of maternal healthcare services, that the community midwives who work with the HEWs at the HPs be trained and accredited to give skilled delivery at the HPs, that providers be encouraged to utilise a standard guideline to improve the quality of maternal healthcare services in the Mecha district, and that the recording tools at the HPs be reviewed and developed.

LIMITATION OF THE STUDY

This study utilised a non-probability, convenient sampling method for the selection of the study site, namely the Mecha District. This might not reflect the characteristics of the population in other districts of the Amhara Region. The study collected data from midwives and HEWs in only three HCs in the Mecha District, therefore these results cannot be assumed to reflect the perceptions of all midwives and HEWs in the Amhara region, Ethiopia.

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