



RESEARCH ARTICLE

A STUDY ON KNOWLEDGE ABOUT HEALTH PROGRAMS AMONG COMMUNITY HEALTH WORKERS

*Muvandimwe Emmanuel and **Prof. Dr. J. Vijayalakshmi

*PhD Scholar in Population Studies, Annamalai University, Annamalainagar, Tamilnadu, India

** Professor in Population studies, Annamalai University, Annamalainagar, Tamilnadu, India

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ABSTRACT

Community health workers (CHWs) are widely used to provide care for a broad range of health issues. The study is aimed to assess knowledge about health programs among community health workers. A sample of 240 health workers was randomly selected from health center at Ruhango district. Questionnaire method was used for data collection and analysis was done through frequency and percent. It has been observed from this study that majority of the health workers had possessed knowledge about timing of first ANC visit in first trimester (97%) and number of ANC visit required during pregnancy(83%),knowledge on providing counseling to women (>95%) on Intake of nutritive food ,proper rest, exercise ,checkup, etc during pregnancy. In this paper, an attempt has been made to assess the level of knowledge of community health workers, focusing on maternal health care and newborn health care

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INTRODUCTION

Community health workers are playing important role in bringing link between the community and the health systems. Nowadays, their role in collaboration with mid-level health workers (MLHWs) is imperative in achieving the health-related Millennium Development Goals (MDGs 4&5) especially those related to HIV and AIDS, malaria, tuberculosis, maternal mortality and childhood diseases. From rural communities in Africa, to cities in Europe and North America, to the densely populated parts of Asia, CHW training programmes have been established and are evolving to meet growing health needs of large numbers of people. In fact, a woman living in Sub-Saharan Africa is at a higher risk of dying while giving birth than women in any other region of the world. This is especially evident among women aged 15 to 19 in Africa, for whom giving birth is the leading cause of death. Community health worker programmes can improve maternal health, and have successfully reduced maternal mortality in Rwanda. CHWs are instrumental in providing healthcare to underserved populations, particularly in rural areas, with few healthcare facilities. CHW can improve maternal health more cost-effectively and reach more of the population if given the proper tools, such as mobile phones, bicycles and delivery kits. CHWs receive basic medical training involving treating mothers and babies with malaria, helping tuberculosis patients to take their treatment correctly, and educating communities on

HIV prevention, family planning, hygiene and nutrition. With this life-saving knowledge, and with basic equipment and medicine, they are able to quickly diagnose and treat people within their neighbourhoods. Training health workers who live close to people's homes ensures that patients no longer lose vital time travelling long distances to health facilities – often hours or even days away. It also means that under-staffed health clinics are less congested with patients who can safely be treated in their homes.

Krishnamurthy & Zaidi (2005:3) in their note on the 'essential elements and enabling environments' of CHW programmes, surmise that the role of CHWs falls between two paradigms, one focused on empowerment and social activism and the other on linking the community and formal systems and "community management function". This has consequences for the role, training and support accorded to the CHWs. They are of the opinion that in the context of poor communities and weak health systems, it is possible and essential to integrate both these approaches. "Community health workers should be members of the communities where CHWs should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers" (Lehmann & Sanders, 2007:3). Community Health Workers (CHWs) can increase access to, and use of, health services, and have played a part in primary health care, tuberculosis, immunization and family planning programmes. CHWs received less attention in the 1990s, but now again are at the centre of discussions about

*Corresponding author: Muvandimwe Emmanuel
Department of Population Studies, Annamalai University, Annamalainagar,
Tamil Nadu, 608002, India.

how to improve coverage and equity, particularly in populations with limited access to health facilities (Haines *et al.*, 2007). In HIV prevention, treatment and care programs, CHWs organize support groups and perform home visits for patients who miss their appointments, clearly greatly contributing to the supply of health service and in particular to the rapid expansion of antiretroviral drug delivery (Morris BM *et al.*, 2009). Community health workers either work for health care facilities or NGOs. In both instances they help in providing basic health services in areas with geographical access challenges and where there is a shortage of professional health workers. For example, CHWs have been able to manage malaria fevers by correctly interpreting results and appropriately prescribing antimalarials. Other activities include promoting proper food production, basic sanitation, and detecting risk groups for the prevention of common illness (Chanda *et al.*, 2011). The purpose of this paper is to assess the level of knowledge of community health workers, focusing on maternal and newborn child health care. This study will contribute to the development of a CHW Program Functionality Assessment Tool for health facility and these assessments will also assist health facility or hospital in action planning and allocating necessary resources to strengthen programs.

Objective of the study

- To study the socio-economic and demographic status of the respondents.
- To assess the knowledge of community health workers on health care services during pregnancy and delivery.

MATERIALS AND METHODS

The study was conducted in Karambi health centers at Ruhango district (Rwanda) 2013. The data required for this study was collected from 240 community health workers using a well designed and structured questionnaire. The questionnaire was initially developed in English and then translated to the local language, 'Kinyarwanda'. The data was collected by me and 2 other researchers who had experience in doing questionnaire interviews. Completed questionnaires were edited for completeness and consistency. The information collected was analysed and presented in suitable tables. Analysis was carried out using the tools such as frequency, percent and mean.

RESULTS AND DISCUSSION

From the above table, it has been observed that 90 percent of the respondents had studied up to primary level whereas the remaining 10 percent of them had studied up to secondary level. Regarding occupation, it has been observed that 70 percent of CHWs were cultivators while 15 and 12 percent of respondents were doing small scale business and breeding animals respectively and the remaining 3 percent of the respondents were tailors. Regarding the current age it shows that 47 percent of community health workers were in the age group of 40-49 years while 40 and 13 percent of them belonged to the age group of 20-29 years and 30-39 years respectively. The mean age of the respondents is 35 years. Regarding duration of work, it shows that majority of the respondents (43%) were having 4 years of experience while 37

and 15 percent of respondents had 3 years and 5 years of experience respectively. The remaining 5 percent of them had 2 years of experience in providing community health work. All the respondents revealed that they had received training on care of mothers during pregnancy and delivery.

Table 1. Distribution of female CHWs by their socio-economic and demographic characteristics

| Level of education | No. of respondents | Percent |
|----------------------|-----------------------|---------|
| Primary | 216 | 90.0 |
| Secondary | 24 | 10.0 |
| TOTAL | 240 | 100.0 |
| Occupation | Number of respondents | Percent |
| Breeding animals | 30 | 12.5 |
| Cultivator | 168 | 70 |
| Tailoring | 6 | 2.5 |
| Small scale business | 36 | 15 |
| Total | 240 | 100.0 |
| Age -group | No. of respondents | Percent |
| 20-29 | 96 | 40.0 |
| 30-39 | 30 | 12.5 |
| 40-49 | 114 | 47.5 |
| Total | 240 | 100.0 |
| Duration of service | Number of respondents | Percent |
| 2 year | 12 | 5.0 |
| 3 years | 90 | 37.5 |
| 4 years | 30 | 12.5 |
| 5 years | 36 | 15.0 |
| Total | 240 | 100 |

From the above table, it has been observed that majority of respondents (97%) had good knowledge about timing of first ANC visit in 1 to 3 months/first trimester. Regarding number of visit required during pregnancy, 83 percent of the respondents had revealed 3 times as required number of ANC visit for women during pregnancy. While 13 and 4 percent of the respondents had revealed 4 and 5 times respectively as required number of ANC visit required for women during pregnancy. All the respondents (100%) were possessing knowledge about package of tests given at health facility to pregnant women. Higher proportion of respondents were having knowledge on supplying of Iron folic acid tablet (88%) and De-worming tablet (67%) during pregnancy. Regarding knowledge about providing counseling during pregnancy, it is evident that majority (>90%) of the workers were aware of giving counseling to women. Higher proportion of the workers had provided counseling on intake of adequate nourished food during pregnancy and also doing exercise, taking proper rest, undergoing proper checkup, watching baby movement in the womb and advice on institutional delivery.

Regarding knowledge on health problems experienced by mothers during pregnancy, all the workers were aware of pregnancy problems such as swelling of the hands and feet, excessive fatigue and vomiting, while 80 to 95 percent of them had known about night blindness and convulsion etc. Regarding knowledge on service during delivery, all the workers had possessed knowledge about labour pain and majority of them (80 to 95 %) were aware of services such as, giving massage and giving (saline) drips. Regarding danger signs of baby, it has been observed that higher proportion of the respondents (85 to 95%) had possessed knowledge on all the danger signs of new born baby such as temperature of baby at birth (< 35.4 or > 37.5), baby movement after birth, breathing status (60 times per minute), body weight in red,

Table 2. Analysis on knowledge of health care during pregnancy

| Knowledge on health care | Response | | |
|-----------------------------------------------------------|-----------|----------|---------|
| | Yes | No | Percent |
| First ANC visit: 1 st trimester(1 to3 m) | 232 | - | 96.7 |
| 2nd trimester(4-6 m) | 8 | - | 3.3 |
| Total | 240 | - | 100 |
| Frequency of visit: 3times | 200 | - | 83.3 |
| 4times | 30 | - | 12.5 |
| 5times | 10 | - | 4.2 |
| Total | 240 | - | 100 |
| Knowledge on package of test health care service | | | |
| B P check up | 240 | - | 100 |
| Abdomen check up | 240 | - | 100 |
| Urine & blood test | 240 | - | 100 |
| weight measuring | 240 | - | 100 |
| HIV/STD test | 240 | - | 100 |
| TT injection | 240 | - | 100 |
| Iron folic acid tablet | 210(87.5) | 30(12.5) | 100 |
| De-worming tablet | 160(66.7) | 80(33.3) | 100 |
| Knowledge on providing counseling during pregnancy | | | |
| Intake of adequate nutritive food | 136(98.3) | 4(1.7) | 100 |
| Advice for proper rest | 226(94.1) | 14(5.9) | 100 |
| Advice for exercise | 200(83.3) | 40(16.7) | 100 |
| Advice for proper check up | 234(97.5) | 6(2.5) | 100 |
| Advice to watch baby movement | 240 | - | 100 |
| Advice on institutional delivery | 240 | - | 100 |
| Knowledge on health problems during pregnancy | | | |
| Swelling of the legs, hands & face | 240 | - | 100 |
| Excessive fatigue | 240 | - | 100 |
| Vaginal bleeding | 240 | - | 100 |
| Anemia | 222(92.5) | 18(7.5) | 100 |
| Vomiting | 240 | - | 100 |
| Blurred vision | 164(68.3) | 76(31.7) | 100 |
| Night blindness | 194(80.8) | 46(19.2) | 100 |
| Convulsion | 126(94.2) | 14(5.8) | 100 |

Table 3. Distribution of CHWs by knowledge on delivery care and child care

| Knowledge on service during delivery | Yes | No | Total |
|--------------------------------------------------------|-----------|-----------|-------|
| Labour pain | 240 | - | 100 |
| Giving massage | 160(66.7) | 80(33.3) | 100 |
| Giving trips(saline) | 200(83.3) | 40(16.7) | 100 |
| knowledge on danger signs of new born baby | | | |
| Temperature of baby at birth (< 35.4 or > 37.5) | 180(75) | 60(25) | 100 |
| Baby movement after birth | 220(91.6) | 20(8.4) | 100 |
| Breathing status (60 times per minute) | 210(87.5) | 30(12.5) | 100 |
| Body wt.in red, yellow and green colour (measure) | 214(89.2) | 26(10.8) | 100 |
| Inflammation of umbilical | 228(95.0) | 12(5.0) | 100 |
| Having convulsion | 220(91.6) | 20(8.4) | 100 |
| knowledge on providing counseling on baby care | | | |
| Advice on utilizing immunization program | 240 | - | 100 |
| Advice to sleep under mosquito net | 240 | - | 100 |
| Advice to watch baby movement | 240 | - | 100 |
| Adopting hygienic methods | 236(98.3) | 4(1.7) | 100 |
| Advice on maintaining Weight of baby | 204(85) | 36(15) | 100 |
| Advice on supplementary feeding | 230(95.8) | 10(4.2) | 100 |
| Advice on contraceptive adoption | 210(87.5) | 30(12.5) | 100 |
| Knowledge about vaccination (dose, timing, etc) | | | |
| BCG | 230(95.8) | 10(4.2) | 100 |
| DPT | 220(91.6) | 20(8.4) | 100 |
| Oral polio vaccine | 210(87.5) | 30(12.5) | 100 |
| Measles vaccine | 200(83.3) | 40(16.7) | 100 |
| Haemophilus influenza type B | 180(75) | 60(25) | 100 |
| Hepatitis B | 140(58.3) | 100(41.7) | 100 |
| Pneumococcal vaccine | 100(41.7) | 140(58.3) | 100 |

yellow and green colour (measurement), inflammation of umbilical and having convulsion. Regarding knowledge on the types of advice required for mothers on baby care, it has been observed that 85 to 95 percent of the workers had possessed knowledge on counseling to be provided for mothers

on baby care. Majority (80 to 95%) of the respondents had possessed knowledge on vaccination of children (dose, timing and age, etc) such as BCG, DPT, oral polio vaccine and, measles vaccine, while less than 60 percent of them had possessed knowledge on hepatitis and pneumonia vaccine.

Conclusion

It has been concluded from the above analysis that an overwhelming majority of the respondents had possessed knowledge about timing of first ANC visit in first trimester (97%) and number of ANC visit required during pregnancy (83%), knowledge on providing counseling to women (>95%) on Intake of nutritive food ,proper rest, exercise, checkup, etc during pregnancy. Regarding knowledge on health problems during pregnancy all the workers had known about some problems but they had little knowledge on night blindness and convulsion. Regarding knowledge on service during delivery, all the workers had possessed knowledge about labour pain. It has been observed that higher proportion of the respondents (85 to 95%) had possessed knowledge on all the danger signs of new born baby. Regarding knowledge on the types of advice required for mothers on baby care, it has been observed that 85 to 95 percent of the workers had possessed knowledge on counseling to be provided for mothers on baby care. Majority (80 to 95%) of the respondents had possessed knowledge on vaccination of children (dose, timing and age, etc) such as BCG, DPT, oral polio vaccine and, measles vaccine. Though the community health worker's knowledge on antenatal care service and service during delivery and counseling on baby care were quite satisfied, it has been suggested to improve their knowledge of service to the full extent so as to prevent maternal morbidity, maternal mortality and infant mortality.

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