

Knowledge and practices of Village Health Team members in early detection and care for children with severe acute malnutrition at the community level: A case study in rural Uganda

Malnutrition remains a serious problem for young children in many developing countries. In Uganda, high malnutrition rates have been reported in the southwest region where 40% of children have chronic malnutrition, 5% with acute malnutrition. Community-based Village Health Teams (VHTs) with very basic health knowledge provide the first level of government-supported health care. WHO (World Health Organization) recommends community management of malnutrition, but little has been documented on the role of VHTs in this regard. We carried out a survey to compare VHTs in two rural communities in terms of: knowledge in food classification, malnutrition detection using MUAC (mid upper arm circumference) tape, and VHT advice on breastfeeding options for those with HIV. We also documented the challenges faced in community management of malnutrition.

METHODS

We conducted a cross-sectional survey among 124 VHTs (59 in site A and 65 in site B) from two randomly selected rural areas in Southwest Uganda: Mbarara district (Site A) and Bushenyi district (Site B). Site A had VHTs with one-time training at recruitment with no refresher training and Site B VHTs had several trainings through the Healthy Child Uganda/MUSKOKA project. Data collection took place between August 2013 and June 2014.

Both quantitative and qualitative methods were used. A pretested structured questionnaire was administered by trained research assistants. Socio-demographic data, nutritional knowledge of VHTs, training and use of MUAC tapes, and quality of VHT advice on breastfeeding options for those with HIV were collected. A list of 14 local food items was given to the VHTs: 5 body-building (e.g., beans), 7 energy-giving (e.g., potatoes or bananas) and 2 health-protective foods (e.g., fruits or vegetables). A VHT was considered to have adequate nutritional knowledge if they correctly classified more than 50% of the common local foods according to the three main types.

The data from the questionnaires were entered in SPSS v. 20 and analyzed. Chi-square was used to compare the VHT characteristics between sites.

Five focus group discussions were held in the same study period in the two sites, each involving 8–12 mothers and/or fathers with children less than five years of age, to discuss care practices and challenges faced in tackling malnutrition in the community. These discussions were led by trained research assistants, carried out in the local language (Runyankole), recorded, transcribed and translated into English. The principal investigator verified the translation and together with the team identified consensus key themes arising from the discussion through content analysis.

Informed consent was obtained from all the VHT and focus group participants. The project received ethical approval from Mbarara University of Science Technology research ethics committee and funding and support was obtained from MicroResearch.

RESULTS

A total of 124 VHTs from the 6 parishes were interviewed; 75% of the VHT members were female, 95% had completed initial 5-day training for VHT role; 70% had served on a VHT <5 years. Table 1 summarizes the demographics and interview findings. There was a significant difference among VHTs in sites A and B regarding training on and receiving MUAC tapes and VHT advice on breastfeeding options in HIV+ individuals, but no difference was noted regarding nutritional knowledge for classification of foods (Table 1).

Of the five focus group discussions, two were held in Site A and three in Site B, and 80% of the 56 participants were mothers, 20% were fathers or other caregivers. The main themes arising included recognition of the need for improved nourishment, the need to seek traditional or hospital care, and delivery of health care by a VHT member to the community members. Challenges noted included insufficient food supply, insufficient time to care for children, low male involvement, and disconnect between nutrition knowledge acquisition and application in care for children.

DISCUSSION AND CONCLUSION

Despite the recommendation in Uganda that HIV-positive mothers on antiretroviral therapy should continue breastfeeding, the advice provided by VHTs in the two sites was different. This could be attributed to changing guidelines with poor flow of new information to the grassroots. To improve child nutrition in the community, VHTs would benefit from refresher courses on a) recommended nutrition for infant and young children of HIV+ mothers, b) training on MUAC measurement, normal values for age and provision of MUAC tapes for detection of malnutrition, and c) nutrition diversity and job aids on food crops to share with the community. Efforts should be made in community sensitization

Table 1. Comparison of demographic characteristics, training experience and nutritional knowledge between VHTs in Site A and Site B

Characteristic	Site A	Site B	p-value
	(N = 59)	(N = 65)	
	n (%)	n (%)	
<i>Socio-demographic</i>			
<i>Age categories in years</i>			
22–40	38 (64.4)	46 (70.8)	0.2428
>40	21 (35.6)	16 (29.1)	
<i>Gender</i>			
Female	44 (74.6)	47 (73.4)	0.7753
<i>Education status</i>			
Non-formal vs. secondary/tertiary	1 (1.8)	0 (0)	0.4167
Primary vs. secondary/tertiary	36 (64.3)	37 (56.9)	0.3401
Secondary/tertiary	19 (34)	28 (43.1)	
<i>Period served as VHT (years)</i>			
Less than 5 years	43 (72.9)	46 (70.8)	0.7941
More than 5 years	16 (27.1)	19 (29.2)	
<i>Nutrition assessment</i>			
VHT trained on MUAC tape use	34 (57.6)	62 (95.4)	0.0000
VHT trained and given MUAC tapes	0 (0.0)	55 (84.6)	0.0000
VHT had adequate nutritional knowledge with correct classification of local food types	49 (82.9)	48 (73.9)	0.2149
<i>VHT advice on breastfeeding option in HIV-positive mothers</i>			
VHT advises mother and child to take HAART and continue breastfeeding uninterrupted	11 (18.9)	27 (41.5)	0.0057
VHT advises mother to abruptly wean/do no breastfeeding at all	48 (81.3)	38 (58.5)	

programs to recognize the need to improve nourishment of children, to seek help when malnutrition occurs and to encourage men to participate in supporting adequate nutrition for children.

Elizabeth Kemigisha, MD, MMED(Paediatrics),¹ Daniel Atwine, MD, MPH(M),¹ Patrick Orikiran, BSc, MSc,¹ Naome Natukunda, BSc(Nursing),¹ Noni E. MacDonald, MD, MSc, FRCPC²

1. Mbarara University of Science and Technology, Mbarara, Uganda
2. MicroResearch Canada and Department of Pediatrics, Dalhousie University, Halifax, NS

Correspondence: Dr. Elizabeth Kemigisha, ekemigisha@must.ac.ug

doi: 10.17269/CJPH.107.5764

ACKNOWLEDGEMENTS

Thanks to Silvano Twinomujuni, Rosemary Namayanja, Umar Masereka, Gad Agaba and George Stephen Ochwo, who contributed to the research project development, and Dr. Francis Oriokot, a pediatrician at the Mbarara Regional Referral Hospital and MicroResearch for the mentorship and guidance offered.