



Knowledge, Attitude and Practice on Infant and Young Child Feeding: A Comparative Study of Radio Listening Club Members and Non-Members of Mudzi Wathu Community Radio in Mchinji District

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Abstract

Background: The current case-control study was conducted in Mchinji district in order to evaluate current infant and young child nutrition knowledge, attitudes, and practice (KAP) of radio listener's club members and non-RLC members and also to determine if the frequency of listening to Mudzi Wathu Community Radio is directly related to improved KAP of RLC members. Further, the study examined whether community radio listeners club members were more knowledgeable in IYCF nutrition than non-RLC members with the purpose of assessing the effectiveness of disseminating nutrition information through mass media in general and through radio in particular and the benefits of having community radio listening clubs on improvement of KAP in communities.

Methodology: Trained interviewers randomly selected 200 women and caregivers with children under five years of age (97 RLC members and 103 non-RLC members) in all the Traditional Authorities areas in Mchinji district where a structured questionnaire was administered to assess knowledge, attitudes and practices on infant and young child feeding nutrition information. Content analysis was employed to determine the type of nutrition information that was disseminated by the Mudzi Wathu Community Radio half a year before the time of the study.

Results: The study did not reveal statistical significant difference between RLC members and non-RLC members in relation to knowledge, attitude and practice regarding sources of water during breast feeding ($p=0.022$), importance of HIV testing during pregnancy ($p=0.025$), knowledge about the six food groups ($p=0.001$), initiation of solid foods ($p=0.001$) and few others such as behaviour change, health seeking behaviour and perception about malnutrition ($p<0.05$). Both the two studied groups had significantly adequate KAP of IYCN.

Conclusion: The results of this study provided a valuable insight into the Knowledge, Attitude and Practice of listeners and non-listeners and highlighted important educational and information dissemination strategies. Strategies are needed for raising awareness of nutrition and preventable health related issues and for changing behaviours and practice.

Keywords: Knowledge; Attitude and practice; IYCN; RLC; Non RLC; Community radio

Introduction

Situation analysis of malnutrition

Malnutrition is a major contributing factor for child morbidity and mortality in developing countries (National Statistical Office (NSO), 2010). In Malawi, about 47% of the under-five children are stunted in growth, whereas 4% and 13% are wasted and underweight, respectively (NSO, 2010). The prevalence of infant and under-five children mortality rate (per 1,000 live births) are remarkably high (which are 112 per 1000 live births). About 50% are due to malnutrition. Despite the several infant and young child nutrition programmes such as nutrition education and counselling, micronutrient supplementation, growth monitoring and promotion, promotion of breastfeeding through Baby Friendly Hospital Initiative (BFHI), prevention of acute malnutrition, maternal nutrition and the implementation of the essential nutrition actions, the problem of high child malnutrition places a significant challenge towards attainment of the Millennium Development Goals (MDG) on reduction of under-five and infant mortality rate in Malawi. Suboptimal breastfeeding contributes to about 19% of infant mortality rate (NSO, 2010). According to 2010 DHS, 63% of children ages 6-59 months were anaemic. One in every four children (23%) had mild anaemia, 36% had moderate anaemia, and 3% had severe anaemia. Anaemia prevalence was highest among children age 6-11 months

(over 80%), and decreased steadily with age between 12 and 59 months [1-5].

Mass media and nutrition information dissemination

The term mass media refers to any form of communication that simultaneously reaches a large number of people, including but not limited to radio, television, newspapers, magazines, the internet, billboards, films, recordings and books. Mass media in the form of radio broadcasts and programming are the primary sources of a wide variety of information including nutrition information for the general public.

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Nutrition education is defined by the Society for Nutrition Education and Behaviour (2010), as any combination of educational strategies, accompanied by environmental support which is designed to facilitate voluntary adoption of food choices and other food and nutrition-related behaviours. Nutrition education further, through multiple venues, involves activities at the individual, community, and policy levels. This now recognised as a primary form of intervention in national food and nutrition programmes. It is now viewed as an integral component of other nutrition intervention approaches since it can influence behaviour change. One example of education and communication activities include: the production and distribution of appropriate radio spots, jingles, documentaries, video and other audio materials. In general, the public obtains most of its nutrition and health information from a number of sources namely: the mass media in the form of radio, the professionals, family and friends. Mass media can thus influence health consciousness, knowledge, and attitudes that can cause behavioural and social change. In addition, one of the most powerful aspects of the media (radio) is its ability to set the public's agenda. That is, media shapes what people view as important in the world, and it identifies and defines concerns, issues and problems. The Community radios can play an advocacy role in creating awareness and attitude change. In addition, according to the Australian National Health and Medical Research Council's Nutrition Education Report of 1989, radio reaches far more people in far less time, even though, single messages are unlikely to change strongly held attitudes and behaviours [6-13].

Mudzi Wathu community radio station

Community radios has been shown to be a valuable tool in facilitating and encouraging change and development by producing programs that are community focussed and relevant, addressing community specific issues and concerns [14]. Local voices airing local opinions about local issues and generating community relevant solutions through dialogue is a key feature and purpose of community radio [14]. Mudzi Wathu community radio which is facilitated by Mai Mwana Project was established for the rural areas of Mchinji district in Malawi. The station was established with a specific community-oriented focus to positively impact the social and health needs of the district with a population of approximately 115,000 people. In coordination with the District Health Office and the District Assembly, the station implements a wide variety of interventions addressing different maternal and child health and social needs. For example, the station broadcasts programmes on health issues such as hygiene, nutrition, the SUN movement, nutrition and HIV/ AIDS. Phukusi la Moyo program is facilitated by Mai Mwana Project, the District Health Office and the District Assembly with funding from Commonwealth of Learning. In the case of Mudzi Wathu Community Radio, the themes and messages are developed in consultation with local health and nutrition authorities. The programmes are then recorded using professional talent from local radio station. The programmes are then tested with representatives of the target audience before airing them, redrafted, and aired according to the listening habits of the target groups who are local listeners' club members.

Membership of MWCR listeners clubs

MWCR listeners clubs are composed of women, mothers and caregivers of children under the age of five years adopted from the project name "Mayi Mwana", which in its simple terms means "Mother and Child". Due to issues of male involvement, fathers of children, chiefs and other local leaders are also included in these listeners clubs.

Various interventions are being implemented in Malawi which is aimed at promoting optimal infant, young child and maternal nutrition. These include implementation of the seven Essential Nutrition Actions (ENA), counselling and support, capacity building of health workers, training in academic institutions, group education and communication. However nutrition indicators have not significantly improved over the years as shown in the Demographic and Health Survey (2010) results. For instance in Mchinji district, 18.5% of under-five children are severely stunted and 53% are moderately stunted, whereas 0.4% is severely wasted and 3.3% are moderately wasted. About 1.5% and 13.1% are reported to be severely and moderately underweight respectively (NSO, 2010). It is, therefore, apparent that there are some gaps and challenges in the way nutrition information reaches the audience.

Despite the involvement of the media in improving nutrition knowledge, little attention has been put in place to assess and evaluate how effective the media (Community radio) has been on its audience in terms of knowledge, attitude and practice in Mchinji district. Although "educational" program of this nature and other types are widespread and heard frequently, there has been little if any evaluation done on them. This current study assessed the effectiveness of delivering nutrition information through radio broadcasting by Community Radio stations using a knowledge, attitude and practice approach (KAP) in the case study of Mudzi Wathu Community Radio station (MWCR) in Mchinji district.

Materials and Methods

The study was conducted among RLC members and non-RLC members of Mudzi Wathu Community Radio (MWCR) of Mai Mwana project in the Mchinji. It covered the following four TAs; Zulu, Mduwa, Simphasi and Mavwere. Eligible participants to the study were RLC members and Non RLC members of Mudzi Wathu Community Radio station who were either pregnant or lactating women or mothers of children who were less than five years of age (0-59 months). Women who took part in the pre testing of the questionnaire and those who did not give self consent were automatically excluded from the study. The women who took part in the pre- testing fitted into the targeted sample as they were selected amongst the radio listener's club members (RLCMs) and were finally and deliberately excluded from the selected sample during actual data collection to avoid and minimize bias and duplication of efforts.

A multi- stage sampling technique was used for selection of studying units. Mchinji district was purposively selected because of the presence of an operational community radio, then purposive sampling of four traditional authorities with full coverage of Mudzi Wathu Community Radio, and random selection of listeners clubs within the TA. This was then followed by systematic selection of households belonging to RLC members. Using snow-balling technique each randomly selected RLC member was requested to identify one non-RLC listener resident in the same community who in turn was treated as a control.

The sample size was originally arrived at using the general formula for calculation of sample size; $[N=2\{t^2(pxq)/d^2\}]$. This gave a sample size of 192.08 which was rounded up to 200 participants. Only 4 of these TAs have one hundred percent coverage of the MWCR. These TAs were then conveniently/purposively selected. A total of 129 radio listeners clubs were listed down in these four TAs. Systematic random sampling whereby each name of the club was printed on a piece of paper and folded, 100 pieces with names of clubs were randomly picked from the 129 printed pieces of papers representing 100 RL clubs. Similarly

25 RL clubs in each of the selected four TAs was randomly selected and each club could register on average 25 RLC members who were, by default, women, mothers and caregivers of children under the age of 5 years. In case of inadequate numbers of RL Clubs per TA, replacements were done by randomly selecting for the remaining clubs. Using a sampling interval of 5, 5 RLC members were randomly selected in each of the 25 RL Clubs per TA. As a result, this gave a sample size of 25 RLC members per TA. Consequently, a sample size 100 RLC members was selected. The same sample size of 100 was achieved for Non RLC members using snow balling technique. After data collection and entry only 97 questionnaires for RLC members and 103 were found to be valid.

Data collection was accomplished using interviewer administered questionnaires designed to obtain relevant socio-demographic characteristics, knowledge, attitude and practice towards infant and young child nutrition. The questionnaire was developed by the principal researcher based on common IYCF parameters for assessment of KAP which included early initiation of breastfeeding, exclusive breastfeeding, optimal complementary feeding and infant feeding in the context of HIV and AIDS. In addition to KAP, exposure to radio and listening frequencies data were collected. This was done to compare and relate radio listening to KAP on IYCF. The survey questionnaire was administered by trained local enumerators. The survey team composed of five enumerators and one supervisor who travelled to selected villages. Eligible women were informed in advance on the survey dates. Data collection was completed in 10 days during the period from the second week to the last week of November 2013. Two sets of information were analyzed in this survey. These were: data on nutrition information disseminated by the Mudzi Wathu Community Radio on IYCF and infant and young child feeding knowledge, attitude and practices for children 0-59 months. The two sets of information were inclusive and interlinked. Data were re-coded into the relevant indices as described in the definitions of indicators for IYCF (WHO indicators).

Data analysis was done using the SPSS Software Version 16.0. In cases of possible multiple correct answers, respondents were asked to mention only one of the expected list of correct/wrong answers that they deemed very important to them. Each respondent was then analysed according to the same, on the questions related to knowledge, attitude and practice related to nutrition information disseminated by Mudzi Wathu Community Radio. Data on KAP was entered in Excel then exported to SPSS where computation for different indices was done to categorise the subjects and comparison between groups. Frequencies and cross tabulation were run on the data according to the groups to which the participants belonged. Cross tabulation and independent samples test were computed to compare the two groups on categorical parameters and test for significance at 95%CI.

Results and Discussions

Demographic characteristics

Of the 195 community dwelling pregnant and lactating women who participated in this study, information about age of spouse was available representing 100%, and age of household head (males) was available only on 167 respondents representing 85%. Information on household size was available for only 194 respondents which represented 99.5% of the respondents. The mean age of female spouses who were RLC members at the time of the study was 32.07 ± 7.5 years and 38.05 ± 8.1 years for the household heads. All respondents in the study were women. Average ages for non-RLC members female

spouses were 28.42 ± 7.5 years and 34.05 ± 8.9 years for the male heads of the household, respectively. All the households sampled in this current study were male headed.

The distribution shows that the younger age group make up the higher proportion of household population in rural areas. This is in line with the national statistics in the MDHS (2010), where 67% of the total population is under the age of 25 while 4% of the population are aged 65 or older. The mean household size for RLC listeners was 5.4 ± 1.7 members and 5.1 ± 1.8 for non-RLC members. This is also consistent with the national statistics, whereby the average household size for the rural areas is 4.7 persons having slightly more members than the urban areas (NSO, 2010).

There were no significant differences in almost all the socio-demographic characteristics between the radio listening club members and those of non-RLC members. For instance, 89.1% of the RLC members and 92.2% of the non-RLC members were married ($p=0.550$) etc. (Table 1).

Exposure to radio and behaviour change

There was evidence of changes in infant feeding behaviours by people in the communities directly as a result of broadcasts as about 94% of the RLC members and 94.1% of the non-RLC members agreed about the feeling of change in behaviour. All the RLC members, and about 93.1% of the non-RLC members, in their understanding agreed with the fact that sharing of nutrition information on a community radio increases awareness and knowledge, attitude and practice in infant and young child nutrition. There were significant differences between RLC members and non-RLC members in terms of proportion of respondents who suggested actual change in behaviour after listening to broadcast ($p<0.001$) and the proportion who suggested that information sharing on community radio increases knowledge

Parameter	RLC members (n=92)	Non-RLC members (n=103)	P-value
Mean age of household head (years)	38.05 ± 8.1	34.05 ± 8.9	0.058
Mean age of spouse (years)	32.07 ± 7.5	28.42 ± 7.5	0.193
Mean household size	5.4 ± 1.7	5.1 ± 1.8	0.263
Marital status (%)			
Married	89.1	90.8	0.55
Widowed	3.3	2.6	0.55
Separated	3.3	2.1	0.55
Cohabiting	1.1		0.55
Never married	3.3	4.9	0.55
Major source of income (%)			
Farming	90.2	89.2	0.55
Self-employed	5.4	8.7	0.55
Causal labour	3.3	2.9	0.55
Petty trade	1.1		
Educational status (%)			
Household head			
None	24.1	5.3	0.55
Primary school level	55.7	78.9	0.55
Secondary school level	20.3	15.8	0.55
Spouse			
None	7.6	12.6	0.55
Primary school level	77.2	71.8	0.55
Secondary school level	15.2	15.4	0.55

Table 1: Socio-demographic characteristics of study participants and their households.

and improves attitude and practice ($p=0.022$). This is in line with the findings of a study done in Philippines and Nicaragua by Cooke and Romweber (1997) where the results showed increased positive knowledge and attitude toward putting oil to rice porridge increased from 15% at the baseline to 74% after one year of broadcast.

Listening habit to Mudzi Wathu community radio

The results suggested that 94.6% of the RLC members have used the information whereas about 52% of the non-RLC members indicated that they had used the information disseminated and almost half of them (47.5%) had never used it. Around 40% of RLC members who had never used the information indicated that they are 'very likely' to use it, 40.0% were only 'likely' to use the information; about 20% would 'possibly' use the information. Similarly, less than half (42.3%) of the non-listener were 'very likely' to use it, 30.8% were just 'likely' going to use it, about 11% indicated that they were 'possibly' going to use it and 15.4% were 'unlikely' going to use the nutrition information being disseminated by Mudzi Wathu Community Radio. There was a significant difference between the RLC members and non-RLC members in terms of proportion of participants who ever used the information disseminated by MWCR ($p<0.001$) which indicate that more RLC members have used the information than the non-RLC members (Table 2).

Relationship between participants' knowledge and attitude and the frequency of listening to MWCR broadcasts

The results of this study shows that the RLC members who had a habit of listening "twice a week" were more knowledgeable and had more positive attitudes than those who listened less. In the case of the listeners, there was significant relationship between the frequency of listening to the MWCR's Phukusi la Moyo programme and the source of information about exclusive breastfeeding ($p<0.001$). The majority of the respondents 48.4% listened to the radio twice a week. In addition, more than half 68.4% who listened to the programme as scheduled

felt that they were very well informed about exclusive breast-feeding ($p<0.001$) and that they felt that they were quite knowledgeable about the benefits and advantages of exclusive breastfeeding over infant formulae ($p=0.02$).

According to these results, frequency of listening to the broadcast was also directly related to the following categorical variables; knowledge about early initiation of breast-feeding ($p=0.015$), the negative effects of pacifiers ($p=0.01$), knowledge of whether HIV positive mothers can infect their infants with HIV ($p=0.01$) and the importance of HIV testing during pregnancy ($p=0.01$). Regarding knowledge about the Malawi six food groups among the listeners, the results suggest that there was positive correlation between the frequency of listening to Phukusi la Moyo programme and the number of groups that the RLC members were able to mention ($p=0.01$). In addition, those who listened twice, as scheduled, were able to mention the signs of malnutrition as wasting, stunting and underweight ($p=0.006$) as compared to those who listened less frequently. Similarly, those who listened regularly to the MWCR broadcast considered optimal infant and young child feeding as essential for growth and development of the child ($p=0.03$) (Table 3).

Types of nutrition information disseminated by Mudzi Wathu community radio

After coding and running through content analysis of frequencies using SPSS, the study revealed that almost two thirds (72.7%) of the different programmes broadcasted on MWCR mentioned the themes and subthemes related to optimal infant and young child feeding according to WHO recommended indicators. For example, the findings indicate that a total of nine programmes mentioned issues on duration of exclusive breastfeeding representing 81.1%. These themes included; exclusive breast-feeding, optimal complementary feeding, nutrition and HIV and the Malawi six food groups. These themes were further divided into subthemes. There were a total of 11 programmes that were

Parameter	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants who ever used information disseminated by MWCR.	87	94.6	5	5.4	0
Proportion of participants very likely to use the information disseminated by MWCR.	2	40	11	42.3	0.773
Proportion of participant likely to use the information.	2	40	8	30.8	
Proportion that were possibly to use the information.	1	20	11	3	
Proportion that were unlikely to use the information.			4	15.4	
Proportion of respondents indicating that information on IYCF was available to them.	88	95.7	89	88.1	0.058
Proportion indicating that MWCR was their first source of information	40	43.5	15	14.9	0
Proportion indicating that Health Worker was their first source of information	50	54.4	86	85.1	

Table 2: Listening habit to Mudzi Wathu Community Radio.

Parameter	Listening Frequency per week	Number of RLC members	P-value
Information source			
Source of information about EBF	2	46	0
Knowledge			
Feeling about being well informed about EBF	2	65	0.001
Benefits of EBF	2	35	0.02
Early initiation	2	45	0.015
Negative effects of pacifiers	2	11	0.01
Whether HIV positive mothers should breastfeed	2	20	0.01
Importance of HIV testing during pregnancy	2	67	0.01
Malawi six food groups	2	48	0.01
Signs of malnutrition	2	44	0.006
Optimal IYCF as essential for child development	2	67	0.03

Table 3: Relationship between participants' knowledge and attitude and the frequency of listening to MWCR broadcasts.

purposely selected depending on their relevance to the objectives of the study (Table 4).

KAP on Infant and young child feeding

In this study, most of the participants had good knowledge of breast feeding. A large proportion of participants agreed that breastfeeding is an optimal way of feeding the infants. The results also indicated that nearly all participants (100%), regardless of listening code have heard and are aware of exclusive breastfeeding. A greater proportion (71.7%) of RLC members indicated that they heard about exclusive breastfeeding from a Mudzi Wathu Community Radio as compared to only 17.5% of the non-RLC members. Less than half (28.3%) of RLC members had heard about EBF from a health worker while a majority of non-listeners, 81.6% indicated that they heard it from health workers. However, a greater proportion of the RLC members (96.7%) were able to state that children need to be exclusively breastfed for 6 months as well as 92.2% of the non-RLC members.

Similarly, 89.1% of the RLC members indicated continued breastfeeding up to two years and beyond as compared to 93.2% of the non-RLC members.

Sixty three percent of the RLC members were able to state the benefits of EBF as cheap, 19.6% mentioned “immunological factors”, and 13% mentioned “right temperature” for the baby. Further 2.2% said EBF promotes bonding between the mother and the child. Similarly, 67% of the non-RLC members mentioned cheap, 10.7% stated that it has immunological values, 13.6% indicated that it has the right temperature and 2.9% suggested that EBF promotes bonding between the mother and the child. The results showed no significant differences between the two comparison groups ($p=0.356$) (Table 5).

Infant and young child feeding in the context of HIV

According to the results of the current study, 87% of the RLC members had the opinion that HIV positive mothers should exclusively breastfeed their infants, as compared to 79.6% of the non-listeners. About 32.6% of the RLC members suggested that HIV positive mothers can infect their infants during breastfeeding as compared to 30.1%

Theme and sub-themes	Frequency of programmes (n=11)	% Coverage
Exclusive breast-feeding		
Duration of EBF	9	81.8
Definition of EBF	8	72.7
Initiation of BF	8	72.7
Advantages of EBF	8	72.7
Negative effects of Infant formulae	8	72.7
Benefits of colostrums	8	72.7
Optimal Complementary feeding		
Definition of OCF	9	81.8
Introduction of OCF	8	72.7
Malnutrition		
Infant malnutrition	10	90.9
Health seeking behaviours in terms of malnutrition	8	72.7
Malawi six food groups	9	81.8
Nutrition and HIV		
EBF and HIV infection	9	81.8
PMTCT	9	81.8
HIV testing during pregnancy	9	81.8

Table 4: Types of nutrition information disseminated by Mudzi Wathu Community Radio.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants whose source was MWCR	66	71.7	18	17.5	0
Proportion of participants whose source was health worker	26	28.3	84	81.6	0
Proportion of participants whose source was others sources			1	1	0

Table 5: KAP on Infant and young child feeding.

Parameter	RLC members		Non-RLC members		P-value
	n	%	n	%	
Duration					
Proportion who mentioned 3 Months	1	1.1	2	1.9	0.532
Proportion who mentioned 4 Months	0		1	1	
Proportion who mentioned 5 Months	2	2.2	5	4.9	
Proportion who mentioned 6 Months	89	96.7	95	92.2	
Length of Breastfeeding after EBF					
Proportion who mentioned 8 Mons	2	2.2	2	1.9	
Proportion who mentioned 2 years and beyond	82	89.1	96	91.3	
Proportion who mentioned others	8	8.7	5	4.9	

Table 6: Participants knowledge about the duration of exclusive Breastfeeding.

of non-RLC members group. More than half of both RLC members (66.3%) and non-RLC members (66.0%) indicated that they cannot infect their children with the HIV virus. Although more RLC members indicated that HIV positive mothers should exclusively breastfeed their infants and that breastfeeding can infect the child with HIV than the non-RLC members, the difference was not significant ($p=0.388$) and ($p=0.454$), respectively. All the RLC members were aware of the fact that it is important for pregnant mothers to test for HIV during pregnancy as compared to 97.4% of the non-listeners. However, there was a significant difference among the two groups in terms of proportion of mothers who suggested that it is not important for HIV testing during pregnancy ($p=0.032$). More of the non-RLC members indicated that it is not important to test.

Breast-feeding and Mother to Child Transmission (MTCT) of HIV (Table 6).

Knowledge about the Malawi six food groups

The two groups did not significantly differ on whether they recall any of the Malawi six food groups ($p=0.604$), 92.4% of the RLC members and 90.3% of the non-RLC members were aware of the Malawi six food groups. However, the two groups differed significantly ($p<0.001$) in terms of the number of groups that they were able to mention. About 73% of RLC members and 40.9% of the non-RLC members, who responded that they were aware of the Malawi six food groups, could mention four to six food groups respectively, and only 12.5% and 46.9% were able to mention only three food groups (Table 7).

Community encouragement of breastfeeding and breastfeeding in public

Of the listening group, 91.3% indicated that the community allows for BF as compared to those RLC members 3.3% who responded that they are not encouraged to BF. About 94.1% of non-RLC members suggested that the community encouraged breastfeeding as compared to only about 4% ($n=4$) who suggested otherwise, almost 5.4% and 2%

Parameter	RLC members		Non-RLC members		P-value
	N	%	n	%	
Proportion of participants able to mention benefits of EBF (%)					
Cheap	58	63	69	67	0.356
Has immunological factors	18	19.6	11	10.7	
Right temperature	12	13	14	13.6	
Promotes bonding	2	2.2	3	2.9	
Proportion of participants able to mention correct time for Early initiation of EBF (%)					
Immediately after birth	70	76.1	86	83.5	0.294
After one hour	21	28.8	17	16.5	
Proportion of participants correctly mention the negative effect of pacifiers (%)					
Respiratory tract infections	18	19.6	26	25.5	0.599
Diarrhoeal	51	55.4	51	50	
Proportion of participants who stated that colostrums is good for child health					
Is colostrum good for child health	90	97.8	102	99	

Table 7: Participants knowledge about early initiation and benefits of EBF.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of mothers who knew that HIV positive mothers should exclusively breastfeed their babies.	80	87	82	79.6	0.383
Proportion of mothers with knowledge that BF can infect infants with HIV.	30	32.6	31	30.1	0.454
Proportion of mothers who felt that HIV testing is important during pregnancy.	92	100	98	95.1	
Proportion of mothers who felt that HIV testing is not important during pregnancy.	0	0	5	4.9	0.032

Table 8: Infant and young child feeding in the context of HIV.

of RLC members and non-RLC members respectively indicated that their community somehow encouraged breastfeeding. However, 100% and 98.0% of both RLC members and non-RLC members respectively suggested that mothers could breastfeed in public. Furthermore, 98.9% of the RLC members and all the non-RLC members suggested that it is in order for mothers to breastfeed in public Table 8.

Participants' attitude and perception of malnutrition

An independent samples t-test was conducted to examine whether there was a significant differences between RLC members and non-RLC members in relation to knowledge, attitude and practice. The test revealed no statistically significant difference in all the measured variables except a noticeable statistically significant difference in relation to knowledge of sources of water during breast feeding ($p=0.022$). RLC members reported lower levels of knowledge than did the non-RLC members. In addition there was statistically significant difference in relation to knowledge about the importance of HIV testing before giving birth. The test revealed statistical difference between RLC members and non-RLC members ($p=0.025$) though the difference was small.

On knowledge about the six food groups, the test showed a statistically significant difference ($p=0.001$), RLC members showed higher levels of knowledge on the Malawi six food groups than non-RLC members. On initiation of solid foods, after exclusive breast feeding, the test revealed a significant difference between the two groups. Those who were non-RLC members showed higher levels of knowledge about when to introduce solid foods which is after six months than RLC members.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants who were aware of the Malawi six food groups.	85	92.4	93	90.3	0.604
Proportion of participant who were able to mention 4-6 food groups.	65	73.9	45	40.9	0
Proportion of participant who were able to mention 3 food groups.	11	12.5	25	46.9	
Proportion of participant who were able to mention only 2 food groups.	10	11.4	18	18.8	

Table 9: Participants' knowledge about the Malawi six food groups.

On behaviour change and practice, the test showed statistically significant difference in terms of change of practice after listening to broadcast on EBF on the community radio ($p=0.001$). There was statistically significant difference in terms of participants understanding of the fact that sharing information on nutrition on a community radio increases awareness and knowledge ($p<0.05$). Non RLC members show more positive faith in the ability of the radio station than the RLC members and this could be due to the fact that they (non-RLC listeners) felt that they were less well informed about IYCF information than the RLC members. The type of infant and young child feeding was not affected by the socio-economic/socio-demographic status of the families, including their education level, occupation and monthly income of mothers, fathers and caregivers. The highest percentages of mothers were housewives and mothers' occupation had no significant relation with mother's knowledge, attitudes and practices.

Signs of poor child feeding and health seeking behaviours (Table 9).

Community encouragement of breastfeeding and breastfeeding in public (Table 10).

Participants' attitude and perception of malnutrition (Table 11).

Participants' attitude and perception of malnutrition (Table 12).

Conclusion

The results of survey study suggest that most of the study respondents were illiterate or primary school leavers and house wives. The men were unskilled labourers and majority of mothers and fathers were farmers. Majority of surveyed infant and young child's feeding pattern knowledge was exclusive breast feeding, and

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants who suggested someone with malnutrition as "outcast"	6	6.5			0.069
Proportion of participants who suggested someone with malnutrition as "bewitched"			2	2	0.069
Proportion of participants who suggested someone with malnutrition as "caretaker careless"	39	42.4	48	47.5	0.069
Proportion of participants who suggested someone with malnutrition as "poor"	35	38.5	38	37.6	0.069

Table 10: Participants' attitude and perception of malnutrition.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of respondents who mentioned underweight	61	66.3	66	64.1	0.915
Proportion of respondents who mentioned stunting	27	29.3	33	32	
Proportion of respondents who mentioned wasting	4	4.3	4	3.9	
Health seeking behaviour					
Proportion of respondent who mentioned traditional healer	4	4.3	6	7.4	0.056
Proportion of respondent who mentioned health facility	87	94.6	70	86.4	
Proportion of respondent who mentioned OTP sites	0	0	5	6.2	

Table 11: Participants' attitude and perception of malnutrition.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of mothers who indicated that the community encouraged BF	84	91.3	95	94.1	0.43
Proportion of mothers who indicated that mother could breastfeed in public	92	100	99	98	0.398
Proportion of mothers who indicated that BF in public is in order	91	98.9	100	100	0.296

Table 12: Participants' attitude and perception of malnutrition.

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants who viewed under five malnutrition as "very serious"	42	45.7	37	36.6	0.589
Proportion of participants who viewed under five malnutrition as "serious"	17	18.5	25	24.8	0.041
Proportion of participants who viewed under five malnutrition as "little bit serious"	19	20.7	21	20.8	0.589
Proportion of participants who viewed under five malnutrition as "not serious"	14	15.2	17	16.8	

Table 13: Participants attitude towards the impact of under-five malnutrition.

optimal complementary feeding. Mothers surveyed had sufficient knowledge and positive attitude and practice of infant and young child feeding. Targeting family members throughout the implementation of educational activities and media campaigns is a need identified by

Information source	RLC members		Non-RLC members		P-value
	n	%	n	%	
Proportion of participants who suggested someone with malnutrition as "outcast"	6	6.5			0.069
Proportion of participants who suggested someone with malnutrition as "bewitched"			2	2	0.069
Proportion of participants who suggested someone with malnutrition as "caretaker careless"	39	42.4	48	47.5	0.069
Proportion of participants who suggested someone with malnutrition as "poor"	35	38.5	38	37.6	0.069

Table 14: Participants' attitude and perception of malnutrition.

this study for improving the outcome of the Infant and Young Child Feeding on community practices. In summary, the following are the conclusions from the study: a larger proportion of the respondents knew about optimal infant and young child feeding; the study also found that the community judged the local community radio station to have made a significant change in community life (Tables 13 and 14). According to the RLC members it is clear that the broadcasts made a positive impact on the quality of life of the people who live in Mchinji district through a combination of strategically designed on and off-air activities based on a community development and participation approach to radio programming; mass media plays an important role in the mothers' lives and represents an important source of information that influence mothers' practices and hence child health. When used in a culturally effective manner it becomes a vitally important educational tool for reaching out to mothers of different needs and socioeconomic levels in the society; it is clear that more mothers and caregivers in Mchinji district are knowledgeable about the hazards of baby bottles and use of pacifiers and they prefer to soothe and comfort their babies by carrying them rather than to give them nipples or teats. These mothers may receive more pressure from their social network to offer their babies teats and nipples, with no knowledge about their negative effect on breastfeeding and without teachings regarding alternative ways to soothing their babies. It is clear also that health staff and media campaigns need to focus on raising awareness of young and first time mothers and their family members about the hazards of nipples and teats. The frequency of listening to MWCR was found to directly correlate to improve KAP on IYCF nutrition amongst RLC members. Although there appeared to be significant contribution of the community radio on knowledge, attitude and practice amongst the RLC members, the final results of the study clearly indicates that there were no statistically significant differences between the RLC members and the non-RLC members on knowledge, attitude and practice between the two studied groups [15-38].

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