Factors Influencing Motivation and Retention of Primary Healthcare Workers in the Rural Areas of Oyo State, Nigeria

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Abstract

Background: Limited data exist on retention of primary healthcare (PHC) staff in rural areas, crippling the already fragile healthcare systems in Nigeria. This study investigated why PHC staff would or would not want to work in rural areas and how they could be retained.

Methods: Four hundred and twelve (412) health workers and caregivers, and 21 key informants were interviewed in Ona-Ara LGA. Logistic regression statistics was used to analyse quantitative data and narrative for qualitative data.

Results: There was no significant factor influencing health workers' unwillingness to work in rural areas and, relationship between their demographic characteristics and perceived reasons to do so. Combined factors influencing PHC workers' willingness to work in rural areas influenced use of PHC.

Conclusion: Financial and non-financial incentives are responsible for workers' motivation to work in rural areas. The mal-distribution of health facilities and health workers between urban and rural areas must be addressed.

Introduction

Despite the adoption and implementation of primary healthcare (PHC) in Nigeria, the levels of morbidity and mortality from preventable diseases are still high (WHO 2006). Proven effective health interventions do not reach the target population; probably due to unavailability of qualified personnel, a critical issue limiting improved health outcomes in rural areas. The question of effectiveness of incentives (financial and non-financial) to attract and retain PHC workers in underserved areas has emerged as the highest priority research question in the field of human resources for health (HRH) (Zurn et al. 2011). PHC and implementation of immunization, antenatal care, nutrition, safe water and sanitation, control of diarrhea and other strategies were adopted about two decades ago, but there is dearth of information on assessment of retention and motivation of health personnel for effective service delivery.

The global health workforce shortage is characterized by a lack of healthcare personnel and an uneven distribution of existing workers. Data suggest that the availability of health workers is a critical factor affecting service delivery (WHO 2006). Consequently, some geographic areas do not receive adequate, or in some cases any, appropriate care (Awofeso 2010; Ebuehi and Campbell 2010). Generally, fewer health professionals choose to practice in rural areas (Chen and Boufford 2005). Much of the research conducted on how to increase the numbers of rural health workers has been carried out in high-income countries (Rosenblatt et al. 2006; Thaker et al. 2008) and typically falls into two groups. One examines why healthcare professionals choose or do not choose to practise in rural or other underserved settings (MacDowell et al. 2010). The other proposes, implements and evaluates interventions designed to recruit or retain healthcare professionals in underserved settings (Chen and Boufford 2005; Chen et al. 2004; Chopra et al. 2008; Wibulpolprasert and Pengpaibon 2003; WHO 2006).

Data from the countries in which these studies were conducted noted that push and pull factors could be more complex in developing country contexts and recommended a mix of incentives to attract healthcare workers to rural areas (Chen et al. 2004). Structural factors (such as well-equipped facilities and proper sanitation), social and professional factors (opportunities for career development, educational opportunities for children and good management) and political factors (including violence or regional instability) (Chen and Boufford 2005; Chen et al. 2004; McAuliffe et al. 2013; Strachan et al. 2012; Wibulpolprasert and Pengpaibon 2003) are all likely to affect health worker preferences for location. Reviews of financial incentives found that those targeting medical student debt were somewhat successful in drawing physicians to rural areas (Munga et al. 2013; Rao et al. 2012; Thaker et al. 2008), but this was less effective when not enforced or when a buyout option was available (Chopra 2008). Creating medical schools in rural areas is another strategy tried in high- and low-income countries (Franco et al. 2002).

Strategies to address the determinants of practice, such as increasing medical school enrolment from rural areas and incorporating rural experience into medical training, have been tried with varying success rate (Franco et al. 2002). Successful policies and interventions may address multiple dimensions of the problem. Hence, this study examined the factors associated with retention and motivation of health workers in rural areas.

Research Design and Methodology

Study Design

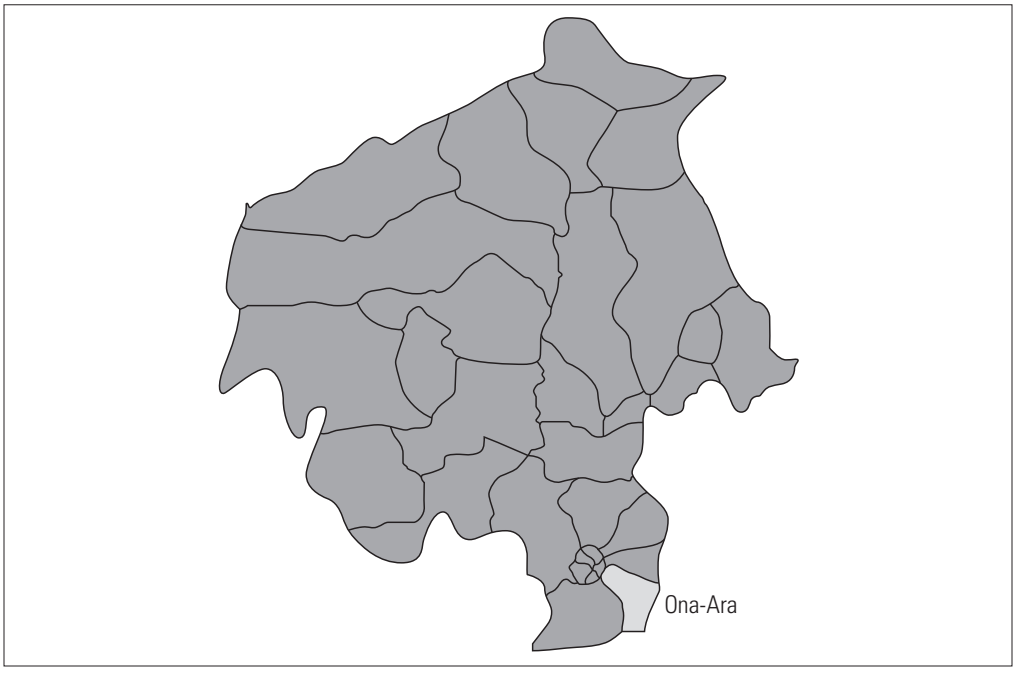
A descriptive study design was adopted using a mixed method (quantitative and qualitative). Qualitative data were collected first, and the information generated informed the draft of the questionnaire.

Study Area

The study was carried out in Ona-Ara Local Government Area (LGA), one of the 33 LGAs in Oyo State, southwestern Nigeria. The LGA was selected because it is rural, with an adequate population for PHC activities. It is made up of eight health districts/wards (two urban/peri-urban

and six rural districts). The total population is 265,059, comprising 131,471 males and 133,588 females. There are about 53,012 children under the age of five years and 10,602 infants (National Population Commission 2006). The people are predominantly Yoruba. The Yoruba are of the Negroid stock that claims a common descent from Oduduwa – their eponymous ancestor who supposedly migrated from Mecca in Saudi Arabia through North Africa and finally settled in Ile-Ife.

Figure 1. Ona-Ara Local Government Area, Oyo State, Nigeria



There are two major forms of residential units in the area. The first is found in the core city of Ibadan, family compounds serve as the basic unit. They accommodate between two and ten families that share blood consanguinity or affinal relationships. Affinal relationship is the relationship established not by blood but through association or union like that of a wife to the family of her husband. The units are usually not fenced and, therefore, tend to grow into one another, forming a sprawling and disconnected mass of mud and brick walls with brown corrugated iron roofing sheets. This residential pattern has significant implications for health, as drainage becomes a problem, especially during the rainy season. This type of residential setting also accommodates large families, which also tends to promote the spread of communicable diseases. The second form of residential pattern is found in the outer part of the city where modern housing system build with modern toilet facilities and other conveniences, fenced and well landscaped. Such residential pattern exists in well lay out environments with good accessible road networks and public facilities. They usually accommodate nuclear family with or without members of extended family system.

The extended family serves as the basis of kinship relations in part of the indigenous city where the study took place. The patrilineal structure of the society confers on the oldest male the authority to ensure the safety of other members of the family. Polygynous marriage is widely practised, thus children (especially male children) are highly valued while divorce is freely permitted.

Study Population

The study population comprised physicians, nurses, community health workers and caregivers (mothers).

Sample Size Calculation

In Ona-Ara LGA, an estimated 30% of the population are children and infants aged less than five years, who are vulnerable to PHC target diseases. Their mothers are caregivers who are more likely to patronize PHC centres. Hence, these caregivers are in the best position to answer questions on the effectiveness of PHC service delivery in the area. Therefore, the population of children and infants was taken as the estimated prevalence of the target diseases in the area, and this was used to calculate the sample size.

Formula

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

Where

n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = estimated prevalence of PHC target disease in the project area is 30% (0.3)

m = margin of error at 5% (standard value of 0.05)

$$n = \frac{1.96^2 \times 3(1-3)}{.05^2}$$

$$n = 3.8416 \times 21$$

$$.0025\ n = 8068$$

$$.0025$$

$$n = 322.72$$

$$n = 323$$

Hence, a total of 412 caregivers were interviewed in the LGA to make room for an anticipated non-response rate.

Sampling Methods

A simple random sampling technique was used to select subjects for the surveys, while key informants and focus group discussion participants were purposively selected based on a set of criteria. Mothers (caregivers) who usually patronize PHC centres were the respondents. Samples were drawn by randomly selecting 412 households across the LGA. Eligible households were those with women who had at least one child less than five years old at the time of the interview.

Instruments of Data Collection

Questionnaire

A 21-item questionnaire covering socio-demographic information and factors influencing workers' willingness or unwillingness to stay in their duty post was developed and validated for the study through a face-validity approach. Copies of the questionnaire were given to a panel of experts for review. Suggestions were implemented before the questionnaire was finally administered to respondents. All data collection instruments went through rigorous standardization before they were used. An interviewer manual was prepared to guide the selection of subjects, give details on special instructions such as skip instructions, and remind interviewers how to administer a questionnaire.

In-depth/Key Informant Interviews

Twenty-one (11 key informants and 10 health workers) were interviewed, including a health supervisor, a PHC coordinator, one community leader in each of the eight health districts, and the director of PHC at the state level. A study guide was used to conduct the interviews, which took place at a venue approved by participants. Interviews were recorded both in longhand and electronically, with the permission of participants.

Data Analysis

Analysis of quantitative data was both descriptive and inferential due to the nature of data collected (quantitative and qualitative). Statistical Package for Social Sciences (SPSS) Version 16.0 was used to analyze the data. Univariate analysis was performed to explain the frequency distribution of variables. Also, bivariate analysis was performed to examine the association between independent and dependent variables. In addition, multivariate analysis was conducted using logistic regression. A narrative analytical approach was adopted for qualitative data. The data were transcribed and translated into English from the local language used for interviewing and were translated back to the local language for consistency and accuracy. Subsequently, data were entered into a thematic matrix, which allowed configuration of common patterns and differences, using the open-code software. Information received was presented verbatim, preserving language and concepts used. The report is accompanied by phrases used by informants, their recorded explanations. Frequently used words are emphasized either in bold type or italics, while parentheses indicate researchers' observations or clarifications. Both quantitative and qualitative data have been integrated to produce a single report. Research assistants were trained on research ethics. Research participants gave free and informed consent indicating their willingness to participate in the study.

Results

Data revealed that the majority (65.8%) of caregivers were between 20 and 39 years of age. This shows that most were still of reproductive age. Only a few (15.0%) were above 50 years; this category likely consists of grandmothers. In contrast to the age of the caregivers, the majority of health workers (58.8%) were between 40 and 49 years old, compared to only 2.9% between 20 and 29 years. Caregivers' level of education was low, with the majority having at most secondary education. A considerable proportion of caregivers (19.7%) had no formal education.

About 90% of the health workers had graduated from schools of hygiene and nursing. This may be due to the fact that these schools grant the basic qualifications to work as a PHC provider. The 5.9% of workers who had secondary education were likely to be support staff, while the same proportion who had university education were likely to be physician coordinators of PHC in the local government. The majority of caregivers were Muslims (53.9%) compared with 0.5% traditionalists, whereas the majority of the health workers (55.9%) were Christians. Most caregivers (53.9%) and health workers (61.8%) were married.

Data showed that the majority of the health workers (88.2%) were at the senior staff grade, with few supporting lower-cadre staff. Similarly, 82.4% of PHC staff had worked for between five and 24 years, compared to 2.9% who had worked for 25 years or more. This shows that most PHC staff have a lot of experience. Generally, they had large families, with 67.6% having four or more children while 11.8% had two or fewer children.

Data indicated that half of the caregivers (mothers) were traders; only 6.8% were unemployed. Generally, one fifth of the caregivers earned less than N10,000 (please give the US dollar equivalent) per month, while one third earned more. A considerable proportion (16.9%) earned no income. This has implications for the use of modern medicine, because caregivers who have no income may have to depend on their partners or husband in order to use PHC. Almost all caregivers (94.4%) had ever used PHC.

Distribution of PHC Workers in the LGA

The health facility survey reported a total of seven health facilities (PHC and maternity) in the LGA. Four were located in Aba-emu, Akanran, Araromi and Butubutu, and the three maternity homes were in Gbedun, Badeku and Olunloyo. There were a total of 48 PHC workers in the LGA (three physicians, eight nurses, 11 ward orderlies, 12 clerical staff and 14 others, such as gardeners and messengers). The average age was 41 years for physicians, 42 for nurses and 40 for orderlies and clerical staff with at least junior secondary education. The average age of gardeners and messengers was 50 years.

There were 18 beds in the PHCs and maternity homes. The PHCs were an average of 14 km from the nearest referral centre. The majority of respondents (71.4%) indicated that communities did not participate in running PHCs, compared with 28.6% who reported that communities did participate. This suggests low community participation, which is contrary to the WHO's principle of primary healthcare delivery.

On the distribution of health workers in the LGA, qualitative data revealed that although they were well distributed, the number of workers was inadequate. According to a community health officer, "They are well distributed to all available health centres but their number is not adequate. The available number of staff is affecting the performance of the PHC centres." This view was modified by the PHC coordinator, who said, "The distribution is not even because we have more health workers in the urban areas than rural areas. This is because there are not enough personnel and the level of patronage in the rural areas is low." Health workers reported that they were tired of staying in the clinic attending to only two or three patients per week. One participant argued,

> Not less than 30 patients used to come to the clinic daily in the urban clinic where I worked last. Sometimes it [was] difficult to cope, especially during peak periods of the month. Life was not as boring as we have here in the rural clinics.

Table 1. Frequency distribution of primary healthcare workers' reasons for unwillingness to work in rural areas by level of educationfor unwillingness to work in rural areas by level of education

Reasons	Respondents' level of education			Total (%)
	Secondary school	At most School of Hygiene	At least Nursing	
Lack of social amenities	2	22	9	33 (11.2)
Family problem	2	20	9	31 (10.5)
Lack of transportation	2	20	9	31 (10.5)
Selective posting of staff to rural areas	2	15	7	24 (8.1)
No incentive	2	17	8	27 (9.2)
Finance	2	14	4	20 (6.8)
Poor accommodation	2	20	7	29 (9.8)
Attitude of community members	2	18	8	28 (9.5)
Low patronage of services	1	13	7	21 (7.1)
Opportunity for career advancement	2	12	3	17 (5.8)
Opportunity to augment income	2	11	2	15 (5.1)
Opportunity for information and communication	2	13	4	19 (6.4)
Total (%)	**2 (5.9)**	**23 (67.6)**	**9 26.5)**	**295[a] (100.0)**

[a] Multiple responses allowed.

Table 1 shows that the majority of the different categories of PHC health workers indicated lack of social amenities, family problems, lack of transportation, selective posting of staff, lack of incentives, poor accommodation and attitude of community members as reasons why they would not want a rural posting. Qualitative data revealed that lack of social amenities, internal politics, transportation problems and lack of access to information were major factors for health workers not wanting to work in rural areas. An official of the PHC at the LGA level discussed the problem of transportation saying,

> The health facilities are far from town. The terrains of the rural areas are bad, and so getting to places of work during raining season is often difficult. The stress of going to and from their places of work makes them unwilling to work in the rural areas. They always feel very bad when they are posted to rural areas. Most people do not want to go to rural areas.

This view was corroborated by almost all informants. However, the majority of nurses and support staff did not see finance as a major problem, unlike the community health extension workers (CHEWs). Also, the majority of nurses and a considerable proportion of CHEWs did not agree that opportunities for career advancement and income augmentation, and lack of communication facilities, were reasons why they would not be willing to work in rural areas. Qualitative data revealed that PHC workers would not want to work in rural areas because of low patronage. According to one CHEW, "There is low patient patronage in the rural areas here. This will make us become redundant and forget our skills because, as they say, 'practice makes perfect'."

Table 2. Frequency distribution of PHC workers' reasons for unwillingness to work in rural areas by years of work experience

Reasons	Respondents' level of experience			Total (%)
	<5 years' experience	5–14 years' experience	15 years and above	
Lack of social amenities	5	12	16	33 (11.2)
Family problem	5	12	14	31 (10.5)
Lack of transportation	5	12	14	31 (10.5)
Selective posting of staff to rural areas	5	11	8	24 (8.1)
No incentive	5	12	10	27 (9.2)
Finance	2	5	13	20 (6.8)
Poor accommodation	4	12	13	29 (9.8)
Attitude of community members	5	10	13	28 (9.5)
Low patronage of services	5	7	9	21 (7.1)
Opportunity for career advancement	2	5	10	17 (5.8)
Opportunity to augment income	1	4	10	15 (5.1)
Opportunity for information and communication	1	7	11	19 (6.4)
Total (%)	**5 (14.7)**	**12 (35.3)**	**17 (50.0)**	**295[a] (100.0)**

[a] Multiple responses allowed.

Table 2 reveals that the majority of the workers, regardless of years of experience, indicated that lack of social amenities, family problems, transportation, selective posting of staff, lack of incentives, poor accommodation and attitude of community members were reasons why they may not want a rural posting. Qualitative data revealed that issues of promotion, career advancement and incentives were critical factors in why PHC workers would not want to work in rural areas. For instance, a community health officer, commenting on career advancement, said,

> There is no time to attend school unless one gets study leave without pay. The system in the LGA health sector does not encourage people to further their education because if you acquire additional qualification it may not lead to promotion or re-designation. Everything has been politicized. One needs to lobby before something good can happen.

Similarly, a nurse commented on incentives to staff working in rural areas, saying,

> There is nothing like non-monetary incentives. In fact, what the government should do is make workers work in the rural areas for two years only and [then] post them to urban areas. They should make all staff serve in the rural areas [at] one time or the other in their career. This will make every health worker have both rural and urban experiences. It should not be [just] some people. It is frustrating.

This suggests problems of selective posting. However, a larger proportion of PHC workers, regardless of their years of experience, did not agree that the opportunity for career advancement, the opportunity to augment their income and communication were reasons why they would not be willing to work in a rural PHC.

Table 3. Frequency distribution of caregivers' perception of reasons why primary healthcare workers do not want to work in rural areas

	Responses					
	Disagree		Undecided		Agree	
	N	Percent	*N*	Percent	*N*	Percent
Lack of social amenities	29	7.0	11	2.7	372	90.3
Family problem	39	9.5	13	3.2	360	87.4
Lack of transportation	34	8.3	10	2.4	368	89.3
Selective posting of staff to rural areas	50	12.1	21	5.1	341	82.8
No incentive	35	8.5	16	3.9	361	87.6
Finance	29	7.0	13	3.2	370	89.8
Poor accommodation	28	6.8	11	2.7	373	90.5
Attitude of community members	55	13.3	31	7.5	326	79.1
Low patronage of services	69	16.7	74	18.0	269	65.3
Opportunity for career advancement	36	8.7	13	3.2	363	88.1
Opportunity to augment income	40	9.7	13	3.2	359	87.1
Opportunity for information and communication	41	10.0	21	5.1	350	85.0

On the contrary, Table 3 shows that more than 80% of caregivers agreed that lack of social amenities, family problems, transportation, selective posting of staff, lack of incentives, poor accommodation, attitude of community members, opportunity for career advancement, opportunity to augment their income and communication were responsible for PHC workers' reluctance to work in rural areas. Alluding to these assertions, community members revealed that the workers experienced difficulty in adjusting to rural life. For instance, a community leader shared his observation that

> Health workers do not want to part with enjoyment of social amenities in the towns. They often complain of non-availability of electricity. For instance, there is no electricity and pipe-borne water in this community. In addition, transportation is a problem. How can somebody who studied in the town and lived most of his life there adjust easily to this type of life we are living? If I had my way I [would] not live in this type of place.

Table 4 shows that all categories of workers felt that the following factors and rotation of duty would make PHC workers disposed to work in rural areas: financial motivation, a fixed limited service period, availability of transportation facilities, welfare programs, accelerated promotion, regular training, community participation, effective communication with headquarters, posting workers to their localities, family and education support programs, free lunch and social support for staff (burial, marriage, etc.). Most informants agreed with these views, as indicated by a community leader who said, "Because of the special conditions of the rural areas, I think that PHC workers should be treated with a difference if they want them to be committed." Most of the health workers believed that non-financial incentives would enhance their interest and induce their motivation to stay. For instance, a nurse said,

What I know is that if there is special condition of service for rural PHC workers, people will be competing for postings to rural areas. It is because these things are not there; that is why one is feeling cheated working under harsh conditions and having the same reward [that] those in the town enjoy.

Table 4. Percentage distribution of factors influencing PHC workers' willingness to work in the rural areas by level of education

Reasons	Respondents' level of education			Total (%)
	Secondary school	At most School of Hygiene	At least Nursing	
Financial motivation	2	18	7	27 (7.8)
Fixed limited period of service in the rural areas	2	18	8	28 (8.1)
Availability of transportation facility	2	19	7	28 (8.1)
Provision of free staff quarters/accommodation	2	18	7	27 (7.8)
Provision of welfare programs	2	17	6	22 (6.3)
Accelerated promotion	2	13	4	19 (5.5)
Regular training	2	19	7	28 (8.1)
Community participation	2	21	7	30 (8.6)
Effective communication with headquarters	2	20	5	27 (7.8)
Posting people to their localities	0	9	2	11 (3.2)
Family support programs	2	13	2	17 (4.9)
Education support programs	2	14	2	18 (5.2)
Free launch	2	13	2	17 (4.9)
Social support for staff (burial, marriage, etc.)	2	13	4	19 (5.5)
Rotation of duty	2	21	6	29 (8.4)
Total (%)	**2 (5.9)**	**23 (67.6)**	**9 (26.5)**	**347[a] (100.0)**

[a] Multiple responses allowed.

Similarly, Table 5 shows that regardless of the number of years of working experience, the majority of the PHC workers indicated that these factors would motivate them to work in rural areas. Although both financial and non-financial incentives have been observed as factors that may induce PHC workers to stay in rural areas, some participants in the qualitative interviews did not agree that non-financial incentives were necessary. For instance, the supervisory counsellor for health indicated,

There is no special allowance or salary and promotion. Salary and promotion follow the same procedure [as] their counterpart in the town. At the point of entry, it is stated in the letter of appointment that they can be posted to work in the rural areas. They should have experience of both rural and urban areas.

Table 6 shows that the majority of the caregivers agreed that both financial and non-financial incentives are reasons why PHC workers would not want to work in rural areas. However, a considerable proportion of caregivers did not agree that community participation (13.8%), effective communication with headquarters (11.2%), posting people to their localities (25.5%) and free launch (15.0%) would encourage health workers to work in rural areas. Generally, other factors ranked higher, at about 90.0% in all cases.

Table 5. Percentage distribution of factors influencing primary healthcare workers' willingness to work in the rural areas by years of work experience

Reasons	Respondents' work experience			Total (%)
	<5 years' experience (*N* = 5)	5–14 years' experience (*N* = 12)	15 years and above (*N* = 17)	
Financial motivation	4	11	12	27 (7.8)
Fixed limited period of service in the rural areas	5	12	11	28 (8.1)
Availability of transportation facility	5	11	12	28 (8.1)
Provision of free staff quarters/accommodation	5	11	11	27 (7.8)
Provision of welfare programs	4	7	11	22 (6.3)
Accelerated promotion	3	5	11	19 (5.5)
Regular training	4	11	13	28 (8.1)
Community participation	5	11	14	30 (8.6)
Effective communication with headquarters	3	11	13	27 (7.8)
Posting people to their localities	1	2	8	11 (3.2)
Family support programs	1	5	11	17 (4.9)
Education support programs	1	5	12	18 (5.2)
Free launch	1	4	12	17 (4.9)
Social support for staff (burial, marriage, etc.)	2	6	11	19 (5.5)
Rotation of duty	2	12	15	29 (8.4)
Total	**5 (14.7)**	**12 (35.3)**	**17 (50.0)**	**347[a] (100.0)**

[a] Multiple responses allowed.

Table 6. Percentage distribution of caregivers perception of factors influencing primary healthcare workers' willingness to work in rural areas

	Responses					
	Disagree		Undecided		Agree	
	N	Percent	*N*	Percent	*N*	Percent
Financial motivation	27	6.6	7	1.7	378	91.7
Fixed limited period of service in the rural areas	42	10.2	10	2.4	360	87.4
Availability of transportation facility	30	7.3	9	2.2	373	90.5
Provision of free staff quarters/accommodation	26	6.3	9	2.2	377	91.5
Provision of welfare programs	25	6.1	11	2.7	376	91.3
Accelerated promotion	25	6.1	11	2.7	376	91.3
Regular training	27	6.6	18	4.4	367	89.1
Community participation	57	13.8	35	8.5	320	77.7
Effective communication with headquarters	46	11.2	37	9.0	329	79.9
Posting people to their localities	105	25.5	60	14.6	247	60.0
Family support programs	30	7.3	13	3.2	369	89.6
Education support programs	29	7.0	11	2.7	372	90.3
Free lunch	62	15.0	12	2.9	338	82.0
Social support for staff (burial, marriage, etc.)	32	7.8	16	3.9	364	88.3
Rotation of duty	32	7.8	17	4.1	363	88.1

Discussion

According to Braichet and Shaw (2009), primary healthcare is

> …essential healthcare based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-determination (Braichet and Shaw 2009).

Primary healthcare was accepted by the member countries of the WHO as the key to achieving the goal of health for all. However, despite the establishment of PHC in Nigeria, it is yet to achieve its purpose because many lives are still being lost to preventable diseases (Braichet and Shaw 2009). For instance, polio is yet to be eradicated in Nigeria and some other countries, despite the knowledge that immunization is the best prevention for many diseases (Bonu et al. 2003; Chandramohan et al. 2007; Clements et al. 2007; Odusanya et al. 2003; Rosenthal et al. 2004; Vincele et al. 1999). Because immunization is the principal strategy for reducing the public health burden of preventable diseases, improving childhood vaccination coverage through PHC is a key health policy objective in Africa. As the availability of vaccination increases, success will depend on addressing issues of demand and timely schedule completion (Cassell et al. 2006; Melliez et al. 2007). This can only be achieved if health workers are available to provide the services in rural areas.

This study has revealed that health workers are generally not disposed to working in rural areas. This is important for Nigeria, where morbidity and mortality rates are one of the highest in the world (UNICEF 2004). Unfortunately, the causes of these high rates are due to preventable diseases (UNICEF 2004), which fall within the purview of PHC through a well-motivated workforce. In Nigeria, the majority of the population reside in rural areas where access to basic necessities of life, including healthcare services, is limited. This contradicts the principle of primary healthcare, which assumes that through primary level care, the poor will have access to well-trained health personnel who are ready to reside in rural areas.

Several factors have been identified as responsible for health workers' unwillingness to work in rural areas. They can be divided into two major areas: financial and non-financial incentives. Financial incentives include salaries and financial remuneration for work done (Kadam et al. 2012; Rockers et al. 2012). Non-financial incentives are conditions of service that do not translate into real income, such as training opportunities, rotation of posting, accommodation, transportation, special promotion criteria and personal recognition by the organization or program administrators.

Motivating and retaining health workers in sub-Saharan Africa have been discussed extensively in the literature (Bennett et al. 2006; Dieleman et al. 2003; Dolea et al. 2010; Franco et al. 2004; McAuliffe et al. 2013). Studies (Bennett et al. 2006; Dieleman et al. 2003; Franco et al. 2004; Kadam et al. 2012; Rockers et al. 2012) have shown that motivation is influenced by both financial and non-financial incentives. Poor salary and working conditions, poor access to training, lack of recognition and social amenities were shown to be the major factors responsible for health workers' unwillingness to work in rural areas. Also, this study found that health workers have concerns about lack of training, career advancement and promotion. Similarly, inadequate infrastructure and poor accommodation and transportation systems undoubtedly affect the willingness of rural PHC workers to remain in rural areas (Agyei-Baffour et al. 2011; Dolea et al. 2012; Lori et al. 2012a, 2012b; Razee et al. 2012).

This in turn raises questions about the quality of care being provided to the rural populace. Studies (Awases et al. 2003; Karadzinska-Bislimovska et al. 2013; WHO 2004) have shown that joint problem-solving between supervisors and health workers is essential for quality improvement and job satisfaction. Some human resource management activities, such as supervision, promotion and training, are performed as mere ritual with little or no attempt to match needs, while others, such as performance appraisal, are completely absent (Manafa et al. 2009).

Health workers in this study expressed concern about lack of career progression. This is a frustrating condition for nurses, as indicated in the in-depth interviews. Nurses undergo three years' training and can progress to a specialized nursing career only by receiving training in specialty areas, a process that will be more rigorous than basic nursing training. As a result, nurses posted to rural areas feel that their posting is politically motivated, since they do not have god fathers (a political affiliate to support them) in their places of work.

A study (Manafa et al. 2009) showed that in Mozambique, the introduction of tecnico de cirurgia (cadre) was accepted as a temporary solution to the critical problem of scarcity of human health resources. Nevertheless, no clear attention was paid to the institutional and organizational implications of introducing a cadre playing such an important role. As a result, health workers career progression was ill-defined (Manafa et al. 2009).

The supervisory counsellor for health who participated in the in-depth interview was of the view that health staff were moderately well motivated and attributed this to their employment conditions as health workers relative to those of the teaching profession. PHC coordinators reported the main factors responsible for unwillingness to work in rural areas as the lack of facilities, a poor salary package with no difference from their urban counterparts, a slow promotion process or delays of up to five years for promotion, a high workload, and lack of basic social amenities such as basic accommodation serviced with water and electricity.

The study suggests that administrators and health workers perceive motivation differently. It is therefore important that policy makers reveal these differences as explicit, because false assumptions on the part of administrators may lead to motivational incentives that do not work for staff (Manafa et al. 2009).

Conclusion

The study examined the factors that influenced motivation and retention of health workers in Ona-Ara LGA of Oyo State. The data revealed a mal-distribution of health facilities in rural areas. Both quantitative and qualitative data showed that both financial and non-financial incentives were responsible for workers' motivation to work in rural areas. Data revealed that although financial incentives played an important role in health workers' willingness to work in rural areas, non-financial incentives were also important. For instance, it was revealed that non-financial incentives such as posting, career progression, training opportunities and availability of social amenities may enhance health workers' interest in working in rural areas. Hence, there is a need to address the mal-distribution of health facilities and health workers between urban and rural areas. Rural areas generally have worse living and working conditions, while better non-financial incentives propel health workers to migrate to bigger health facilities (provincial and national hospitals) situated in towns and cities or even to small health facilities in towns and cities.

Government should introduce national-level policies to retain health workers in rural areas and at lower levels of the health system to ensure that all areas reach minimum standards with regard to numbers of personnel per population (for example, the WHO recommended a minimum standard of 20 doctors per 100,000 patients). Also, emphasis should be placed on non-financial incentives such as improved working conditions, training and supervision, good living conditions, communication, training and educational opportunities, family welfare programs, transportation facilities, special promotion conditions and personal recognition for patriotic service delivery.

Finally, government should invest not only in the health workers, but also in the facilities by improving working conditions in rural areas.

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