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ATTITUDE OF HEALTH CARE WORKERS TO THE INVOLVEMENT OF ALTERNATIVE HEALTHCARE PROVIDERS IN THE HOME MANAGEMENT OF CHILDHOOD MALARIA*

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ABSTRACT

The attitudes of 193 healthcare workers (Nurses (35.7%), auxiliary nurses (35.7%), followed by community health officers (26.4%)) in 55 primary and secondary healthcare facilities to home management of malaria were evaluated in four local government areas in Southwestern Nigeria. Results showed that mothers and patent medicine sellers were perceived as offering useful services in home management of malaria by giving first aid and selling antimalarial drugs, respectively. Although 79% of respondents expressed the opinion that mothers are the most appropriate to give first line management to children suffering from malaria, 56% were also of the view that such children

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should receive definitive treatment in a formal health care facility. Furthermore, 45% of the respondents felt that only formal healthcare workers should treat children who have malaria irrespective of the location of the treatment because mothers, patent medicine sellers, and traditional healers have not been formally trained. Healthcare workers were willing to train mothers and patent medicine sellers on effective management of childhood malaria, but were not favorably disposed toward collaboration with traditional healers in the home management of malaria. There is an urgent need for formal healthcare workers to seek better understanding of traditional healers' practices as well as their cooperation for improved home management of childhood malaria among indigenous groups.

INTRODUCTION

Malaria remains a major cause of morbidity and mortality in the world, especially in sub-Saharan Africa where it is responsible for 1.5 to 2 million deaths annually among children less than five years of age [1, 2]. Early diagnosis and prompt treatment are basic elements of any malaria control program [3]. In sub-Saharan Africa, self-treatment of malaria at home is an extremely common first pathway for management of malaria [4-7]. In an earlier KAP study involving over 2000 respondents in Southwestern Nigeria, healthcare facility workers, mothers and other caregivers, patent medicine sellers, traditional healers, and policy makers were identified as the target groups involved in the home management of malaria [8]. Trained health facility workers form a key segment among these target groups because of their capacity to manage malaria of various grades of severity. Cooperation and collaboration between all categories of healthcare providers is essential for successful and effective home management of malaria. However, a major challenge to such collaboration in the management of malaria is the attitudinal disposition of formal healthcare workers to the participation of informally trained alternative healthcare givers. This may be due to their reluctance to transfer the monopoly of skills, which hither to they have enjoyed as authorities in healthcare. In addition, there appears to be a mutual distrust and competition between orthodox care givers and traditional healers who are alternate care givers; while the issues for the patent medicine sellers are those of questionable legality and lack of competence to perform their expected roles in home management of malaria. These underscore the need to investigate these issues before the needed cooperation between these target groups can be achieved. This study is part of a larger study aimed at incorporating socio-cultural and economic characteristics of mothers and other care givers in the home management of malaria in children. Efforts in this study were devoted to identifying the attitude of healthcare workers to home management of malaria with particular reference to the involvement of other healthcare providers in preparation for future collaboration and intervention.

from Iseyin, Kajola, Ogbomosho, and Orire Local Government Areas, respectively. The respondents were from five different categories of healthcare facilities which included hospitals (43.52%), maternity centers (25.4%), primary health centers (16.6%), dispensaries (6.7%) and health posts (2.1%).

The respondents' cadre revealed that 35.71% (of 182 available responses) each belong to the nursing and auxiliary nursing categories, 26.4% were community health workers, while 1.1% were medical officers. Other categories of officers interviewed were information officer (0.6%) and a hospital secretary (0.6%).

Most of the respondents (146; 76.5%) were female while 47 (23.5%) were male. About three-quarters (74.6%) of respondents were aged 21–40 years and most respondents belonged to the Christian (73.6%) and Moslem (26.4%) religions. Most of the respondents (70.5%) were married, 28.5% were single, and 1.0% were either separated or widowed. Only 181 respondents gave their ages. The peak age range of respondents was the 21-40 year age range (74.6%) followed by 41-60 year age range. Twelve respondents (6.6%) were aged less than 20 years while one respondent was over 60 years of age.

About two-thirds (125; 64%) of the respondents work at Local Government healthcare facilities. In response to length of work experience, 78 of 125 (62.4%) took up appointment at the facilities between 1990 and 1999, 34 (27.2%) between 1980 and 1989, and 13 (10.4%) were appointed over two decades (between 1970 and 1979). A review of staff turnover in the health facilities owned by the local government authority showed that 87 (69.6%) were recently deployed to the health facility where they were interviewed, while 12 (9.6%) had been at the respective facility for over 20 years.

One hundred eight (56.0%) of the 193 respondents had received one form of in-service training or another. The various types of in-service training received by the healthcare facility staff included health education (76.9%), management of malaria (63.3%), monitoring and evaluation (48.1%), as well as record keeping and supervision (42.6%). Other types of in-service training included accident and emergency care, maternal and child care, counseling, management of diseases of the ear, nose, and throat, family planning, and health management training.

Respondents' Self-Assessment of Capability to Manage Childhood Malaria

Healthcare workers generally rated their competence high in the different aspects of management of malaria. Expressed areas of competence include giving health talks to mothers on treatment of malaria (91.2%), organizing training programs for mothers on home management of malaria, and the use of educational materials (88.6%). Other areas of competence mentioned included counseling mothers to get involved in the management of malaria and collaborating with patent medicine sellers. Details are described in Table 1.

Table 1. Respondent's Self-Assessment of Capability to Manage Childhood Malaria

Criteria	Confidently	Don't know	Not confidently
1. Organize training program for mothers on home management of malaria in children	171 (88.6%)	3 (1.6%)	19 (9.8%)
2. Conduct health talks to mothers on treatment of children with antimalarial drugs.	176 (91.2%)	1 (1.6%)	16 (8.3%)
3. Use educational materials for training mothers on management of malaria in children.	171 (88.6%)	3 (1.6%)	19 (9.8%)
4. Counsel mothers whose children have repeated episodes of malaria.	168 (87.0%)	9 (4.7%)	16 (8.3%)
5. Mobilize parents to get involved in management of malaria.	161 (83.4%)	11 (5.7%)	21 (10.9%)
6. Collaborate with patient medicine sellers in efficient supply of antimalarial drugs.	125 (64.8%)	22 (11.4%)	46 (23.8%)

Attitude of Respondents to Management of Malaria by Community Segments

As expected, there were variations in the attitude of healthcare workers (HCW) to home management of childhood malaria. More than half (56%) of the respondents expressed the view that treatment of children who have malaria should be undertaken only in a formal healthcare facility while 45.1% felt that only health workers should treat children with malaria irrespective of the location of such care.

Attitude toward the Involvement of Mothers, Patent Medicine Sellers, and Traditional Healers

Tables 2, 3, and 4 describe the various attitudinal dispositions of respondents to involving mothers in home management of childhood malaria. About 80% of respondents believed that mothers and other caregivers should give the first line

Table 2. Attitude of Health Care Workers to Involving Mothers in Home Management of Childhood Malaria

Attitude of HCWs to home management of malaria by mothers	Agree	Don't know	Disagree
1. First line management of malaria in children could also be done by mothers at home.	153 (79.3%)	2 (1.0%)	38 (19.7%)
2. Most health workers will favor training mothers on home management of malaria.	148 (76.7%)	16 (8.3%)	29 (15.0%)
3. Most health workers will like to participate in training mothers on all aspects of home management of malaria in children.	150 (77.7%)	13 (6.7%)	30 (15.5%)
4. Mothers are quite capable of treating children who had malaria on their own.	17 (8.8%)	10 (5.2%)	166 (86.0%)
5. Mothers' involvement in treating their children with antimalarial drugs amounts to taking over the duties of healthcare workers.	60 (31.1%)	13 (6.7%)	120 (62.2%)
6. Mothers should not handle antimalarial drugs because they are not trained like health workers.	91 (47.2%)	6 (3.1%)	96 (49.7%)
7. All mothers should be trained on how to treat their children whenever they have malaria.	143 (74.1%)	5 (2.6%)	45 (23.3%)

management of malaria at home. In actualizing this, respondents were favorably disposed to training mothers to carry out home management of malaria.

Sixty-seven percent of respondents agreed that patent medicine store workers (PMS) should be allowed to sell antimalarial drugs and are actually doing a useful job (61.7%) in the community. However, a large proportion (73.1%) of respondents would like PMS trained on appropriate use and dispensing of antimalarial drugs. Other attitudes are described in Table 3.

The attitudinal disposition of healthcare workers (HCW) to the involvement of traditional healers in the home management of malaria is presented in Table 4.

Table 3. Attitude of Health Care Workers (HCW) to Home Management of Malaria by Patent Medicine Sellers (PMS)

Attitude of HCWs to home management of malaria by PMS	Agree	Don't know	Disagree
1. Patent medicine sellers could sell antimalarial drugs.	129 (67.8%)	8 (4.1%)	56 (21.7%)
2. Health workers should train patent medicine seller on how to administer antimalarial drugs appropriately.	141 (73.1%)	6 (3.1%)	46 (23.8%)
3. Patent medicine sellers are doing a useful job by making antimalarial drugs available.	119 (61.7%)	13 (6.7%)	61 (31.6%)
4. Willing to collaborate with patent medicine sellers in efficient supply of antimalarial drugs.	125 (64.8%)	22 (11.4%)	46 (23.8%)

More than half of the respondents expressed the opinion that traditional healers should not treat children with malaria. However, a larger proportion of respondents (61.7%) are willing to train traditional healers in the management of childhood malaria. On the other hand, only about a quarter (28.5%) of respondents are willing to be trained by traditional healers in traditional methods of treating malaria. In addition, there was a low level (16.6%) of trust in the efficacy of traditional drugs by respondents. Only about one-third of healthcare workers interviewed were prepared to collaborate with traditional healers in the management of childhood malaria.

DISCUSSION

Home treatment for acute uncomplicated malaria is common in tropical Africa [4-6, 9]. The most frequent source of drugs for children who are ill from malaria is from the patent medicine store followed by a health facility, traditional healer, or herbs prepared at home. These underscore the need for a coordinated approach to the correct home management of malaria. This study looked at the attitude of healthcare workers toward the home management of childhood malaria by various segments of the community using a structured questionnaire in selected healthcare facilities in Southwestern Nigeria.

Table 4. Attitude of Health Care Workers (HCW) to Involving Traditional Healers in Home Management of Malaria

Attitude of HCWs to involving traditional healers in home management of malaria	Agree	Don't know	Disagree
1. Traditional healers should not treat children with malaria.	105 (54.4%)	10 (5.2%)	78 (40.4%)
2. Health workers should train traditional healers on how to effectively manage malaria in children.	119 (61.7%)	4 (2.1%)	70 (36.3%)
3. Traditional healers are not performing any useful role in the treatment of malaria in children.	82 (42.5%)	18 (9.3%)	93 (48.2%)
4. Traditional healers should train health workers on effective methods of treating malaria.	55 (28.5%)	22 (11.4%)	116 (60.1%)
5. Willing to collaborate with traditional healers in the treatment of malaria.	69 (35.8%)	25 (13.0%)	99 (51.3%)
6. Some traditional drugs are more effective in the treatment of malaria than orthodox drugs.	32 (16.6%)	48 (24.9%)	113 (58.5%)

Almost three-quarters (71.2%) of the healthcare facility workers interviewed belong to the nursing or auxiliary nursing profession. There was also a female preponderance in the ratio of 3:1. These findings are not unexpected as nurses, nursing auxiliaries, and community health officers man most of the health facilities and members of these professions in Nigeria are predominantly female.

Almost 70% of the staff of healthcare facilities has spent less than 10 years in their respective facilities indicating a high turnover rate. It was observed from the findings that over 60% of staff were recruited in the 1990s compared with the preceding decade of the 1980s. While it is expected that experienced healthcare workers may be more conservative in their attitude to sharing their skills with those outside their profession, the younger ones are expected to be more accommodating since participatory care had been in place at the time of their training. The findings of this study also show that healthcare workers saw a need to train mothers because they know that mothers lack the skills to manage malaria and indicated a strong willingness to give mothers the required training.

Respondents were also wiling to train patent medicine sellers in the correct home management of malaria, but they do not strongly support the role of PMS as sellers and prescribers of drugs.

However, health workers show considerable apathy to traditional healers' involvement in home management of malaria. The reasons for this attitude can be speculated to include the belief that traditional drugs are ineffective and that traditional healers do not have any superior skills in managing malaria. As a result, they are unwilling to collaborate with them. Of the three postulated reasons for resentment, competition/rivalry is highest, followed by legality and quackery, while monopoly of skills represented by mothers is the least threatening. It was noted that healthcare workers are more willing to work with mothers than any other group that pose a competition or rivalry to their profession. Mothers are more readily perceived as helpers and are more acceptable than PMS and traditional healers, who are seen as rivals. Claims and counter claims of superiority of skills between orthodox HCW and traditional healers might have contributed to the high level of distrust between them. Health workers claim that many patients who seek their consultation late have gone to traditional healers, thereby delaying seeking treatment from formal health facilities, which often led to avoidable complications. Traditional healers, on the other hand, claim that it is when orthodox medicine fails that patients come to them [10]. Traditional healers crave recognition in the orthodox system and the formal integration of their services into the health system without valid proof of efficacy of their practices, while the orthodox healthcare workers feel strongly that a proof of efficacy is a prerequisite for their collaboration.

The willingness to collaborate with mothers and patent medicine sellers is a positive trend toward attaining the goal of bringing healthcare to the home, as mothers are usually the first to know that a child is ill. It has been shown by various workers that the nearer home treatment of malaria, the better the prognosis and treatment outcome [11-13]. Kidare and Morrow showed that training mothers in Ethiopia to provide home treatment of malaria led to a major reduction in malaria-related mortality in children less than five years of age [11]. Becker et al., during a study in Liberia, also recorded similar findings in which the rate of fever associated with death for children 6–35 months of age declined by 29% when mothers were trained to provide home treatment of malaria [12]. Building capacity for effective home management of malaria in mothers will ensure correct management as well as augur well for reducing the morbidity and mortality among children in the community. Drugs employed in the management of malaria are usually obtained from patent medicine stores. This makes active collaboration in terms of training, referrals, and other forms of interaction between healthcare workers and patent medicine sellers a positive trend in improving home management of malaria.

The findings in this study suggest the willingness of healthcare facility workers to closely work with PMS but not with traditional healers. The less favorable

disposition toward traditional healers' involvement cut across all cadres of healthcare facility staff. There are numerous reasons to support the need for collaboration. Improvement in healthcare cannot be achieved where cultural aspects are ignored or underestimated and for which formal healthcare workers need to be trained. Traditional healers constitute the first pathway selected in the home management of children with severe malaria such as febrile convulsion, cerebral malaria, or severe anemia [8, 9]. This is a result of the perception of serious disease causation, which is believed to be supernatural, and as such cannot be cured by conventional healthcare givers or drugs. Unfortunately, this is the sub-segment of children suffering from malaria who run the greatest risk of dying if appropriate intervention is not provided early [1]. Malaria is more prevalent and more severe among rural dwellers than among urban dwellers [14]. Many rural communities in Africa trust the traditional healers in the community to solve their health problems. Without doubt, traditional healers constitute an important segment of healthcare providers in the community [6]. Training of traditional healers in appropriate management of malaria, especially in recognition of severe forms of malaria and the need for early referral, will undoubtedly lead to an improvement in the health status of the community. Experience in southwestern Nigeria has shown that traditional healers rarely can resist the acquisition of new knowledge when it helps them beat disease. A change in attitude of the healthcare facility workers to traditional healers and traditional methods of care will go a long way in reducing the traditional distrust between these two groups of healthcare providers in the community. The community and formal healthcare providers can only stand to benefit from active collaboration between traditional healers and formal healthcare services. In Venezuela, active collaboration between the two groups of healthcare providers and researchers has produced a rich heritage of medical and scientific knowledge [15]. It must be appreciated that indigenous medical practitioners are the keepers of centuries of accumulated natural medicinal resources, and as such hold the key to the discovery of important new drugs that could benefit millions of people.

For healthcare workers to be able to assert claims of superior competence, continuing education training is mandatory. The results of this study show that only a little over half (56%) of the respondents had ever gone for any continuing education program. This finding is not encouraging. It is, however, encouraging that a significant proportion of healthcare workers who had received in-service training was found to have attended training on management of malaria (63.3%) and health education (76.9%). The need for the training of formal healthcare workers to be tailored toward a shift in their attitude to the involvement of patent medicine sellers and traditional healers cannot be overemphasized. We suggest that this attitudinal change can be effected during training in the various training institutions for would-be healthcare workers and during continuing education training for serving healthcare workers. Continuing education on other important components of malaria management, namely monitoring and evaluation (48.1%)

and record keeping (42.6%), was low. This could explain the inadequate record keeping observed in most of the healthcare facilities visited during the study. Training on record keeping and other aspects of healthcare needs to be looked into in order to foster an integrated and comprehensive management of childhood malaria. For improved quality of care and sustainability, staff development and continuing education play major roles. This gives room for improved knowledge, upgrading of skills, and management techniques. Clear definition of standard of care in the management of malaria and a systematic effort to ensure that the standards are clearly understood by clinical staff is considered one of the ways to promote high quality care [3]. This and other key aspects of global malaria strategy can be communicated to healthcare workers during in-service education programs.

Evaluation is an important component of any healthcare program. During the conduct of this study, respondents rated themselves high in their capability to carry out various activities such as organizing training, conducting health talk, and use of educational materials in the management of childhood malaria. This high rating is expected, as nobody would rate himself or herself low. There is a need for an independent evaluation of the capability of healthcare workers to corroborate this self-assessment and steps taken to correct any shortcomings that may be detected.

In conclusion, the findings of this study show a positive development in which the healthcare workers are favorably disposed to the training of and collaboration with mothers and patent medicine sellers in the management of childhood malaria. Concerted efforts need to be made in fostering a more conducive relationship between healthcare workers and traditional healers. The challenge is how to develop and foster this relationship.

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