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Knowledge sharing and referral practices by traditional birth attendants in low-income urban areas of Southwest Nigeria

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Abstract

Traditional birth attendants (TBAs) are important for maternal health care especially in Africa's low-income areas. Without doubt, the relevance of TBAs in developing countries such as Nigeria is not expected to reduce in the foreseeable future. The knowledge of traditional birth attendants will continue to be needed and considering the tacit nature of their knowledge, there is a need to preserve the knowledge in this profession and promote sharing of best practices to prevent maternal mortality issues. This study investigated the knowledge sharing (KS) and referral practices of TBAs in low-income urban areas of South-west Nigeria. Qualitative approach was adopted and data collected from 25 TBAs through face-to-face interviews. TBAs generally had a positive attitude towards KS and knowledge reciprocity was a strong reason for KS. Challenges to KS were lack of trust, fear of colleagues being into voodoo and lack of appreciation for knowledge shared. Patient referral was a practice especially for complicated cases. Challenges to referrals included excessive hospital bills and sometimes orthodox practitioners' blaming TBAs for maternal complications. TBAs reported a very good working relationship with orthodox practitioners and support in form of providing advice on safe delivery. The positive attitude of TBAs to KS and patient referrals, as well as improved collaboration with orthodox health practitioners shows a change in narratives earlier reported on traditional health practitioners. Strategies aimed at improving maternal health and achieving 2030 Sustainable Development Goal 3 which targets reduction of maternal mortality, should not exclude the knowledge of TBAs especially in low-income areas where their patronage is substantial.

Keywords: Traditional birth attendants, low-income areas, indigenous knowledge, patient referral, knowledge sharing, attitude towards knowledge sharing, reciprocity

Introduction and literature review

The 2030 Sustainable Development Goal 3 targets reduction of maternal mortality to less than 70 per 100,000 live births. However, in Nigeria, World Bank (2019) report shows that although the maternal mortality rate continues to reduce, it was 917 per 100,000 as at 2017. Moreover, World Health Organization (WHO) (2019) noted that Nigeria contributes about 20 percent of global maternal deaths and this has been largely attributed to inequalities in access to healthcare. According to WHO (2015), the physicians to population ratio in Nigeria was 4:10,000 while nurses and midwives to population ratio was 16.1. As at May 2020, the Federal Government of Nigeria also confirmed that the ratio of doctors to population was 1:2753 (Onyedinefu, 2020). As a result of this inequalities in healthcare access, many pregnant women resort to patronising traditional birth attendants for child delivery.

Traditional birth attendants (TBAs) as defined by World Health Organization (2004), are "traditional, independent (of the health system), non-formally trained and community-based providers of care during pregnancy, childbirth and the postnatal period." Most TBAs learnt their job through apprenticeship as they have no formal style of training and most of their knowledge is in tacit form unlike orthodox midwives who have official government approved certificates

(Abodunrin, Akande, Musa, & Aderibigbe, 2010). According to Sibley and Sipe (2006) TBAs are mostly respected older women in their community, and often times illiterates who learned the skill from much older and more experienced traditional birth attendants. They either work independently or in partnership with another traditional birth attendant or integrated into a health system. The value of TBAs was for many years disregarded by trained orthodox health practitioners until the late 1980s when the World Health Organization established the significant role of TBAs in improving maternal and new born health. For ages, TBAs have been the major providers of child delivery for pregnant women and even though their roles vary across different cultures, their major role is to support in child delivery especially in areas where most babies are delivered at home (Chizoba, Chineke, & Adogu, 2020). More than a decade ago, Olusanya, Inem, and Abosede (2011) reported that TBAs attend to approximately over 65% of births in developing countries. Their services are unescapable in rural areas due to poor access to orthodox health facilities. Moreover, many women who have access to orthodox health facilities also use TBAs either in their private residences or in commercial traditional maternity centres (Olusanya, Alakija, & Inem, 2010; Tabong, Kyilleh, & Amoah, 2021). According to Tabong et al. (2021), the poor attitude and maltreatment by trained midwives and fear of giving birth through Caesarean section are reasons for patronising TBAs. They also believed that TBAs are more experienced and understand their psychological needs than skilled midwives.

Without doubt, the relevance of TBAs in developing countries such as Nigeria is not expected to reduce in the foreseeable future. The knowledge of traditional birth attendants will continue to be needed and considering the tacit nature of their knowledge, there is a need to preserve the knowledge in this profession and promote sharing of best practices to prevent maternal mortality issues. Studies have shown that deliberate knowledge transmission (Adekannbi, Olatokun, & Ajiferuke, 2014; 2016) and collaboration with orthodox medical practitioners (Adekannbi, 2018) can go a long way in ensuring the preservation of traditional medical knowledge. According to Adekannbi (2018) and Kanjo (2012), there is a need to strengthen the working relationship between the traditional health practitioners and their orthodox counterparts, such as through patient referrals (Adekannbi, 2018; Kanjo, 2012), as such collaborations have been noted to improve quality healthcare (Dynes, Stephenson, Hadley, & Sibley, 2014). However, not much is known about the knowledge sharing behaviour of TBAs and working relationship with orthodox medical practitioners especially in relation to referral practices. Within communities of practice, health practitioners can share their knowledge, experiences and concern with one another with the ultimate goal of solving problems (Kanjo, 2012). However, most studies on knowledge sharing in the health sector have largely focused on the orthodox medical practitioners (Asemahagn, 2014; Maheshwari, Sarrion, Motiani, O'Sullivan, & Chandwani, 2021; Opesade & Alade, 2021), and recently among pregnant women (Nkunkwane & Fombad, 2022). Nonaka and Takeuchi (1995) stated that knowledge sharing is the key to successful knowledge management. The implication of this is that in order to ensure the reduction of maternal mortality rate, understanding knowledge sharing of all categories of health practitioners is of utmost importance. Generally, knowledge sharing among healthcare workers ensures better practices among them and continuity in delivering their services (Assem & Pabbi, 2016).

Earlier, Adekannbi et al. (2014) and (2016) investigated predictors of knowledge transmission among traditional medical practitioners in rural communities of South West Nigeria. A key limitation of these studies is that there was no distinction in the categories of traditional medical practitioners involved in the study. Traditional medical practitioners as defined by WHO (2000) are individuals recognized by the community where they live, as competent to provide

healthcare using animal, plant, mineral substances and other methods based on social, cultural and religious practices. This definition implies that herbalists, bone settlers and TBAs are all represented in the definition of traditional medical practitioners. Research has however shown that individual professionals may vary in the way they interpret, use and share their professional knowledge (Abdullah, Dechun, Ali, & Usmanet, 2019; Fenwick & Nerland, 2014). Moreover, Adekannbi et al. (2014) and (2016) also largely focused on knowledge transmission which was exclusively about knowledge moving from a custodian to an individual who has no knowledge of traditional medicine at all. In other words, knowledge transmission from a traditional medical practitioner to an apprentice. Considering the key role played by TBAs in maternal mortality, there is a gap in what is known about their knowledge sharing and referral practices. Hence, this study investigates the knowledge sharing behaviour and referral practices of TBAs in a low-income area in Ibadan metropolis by answering the following questions:

1. What is the attitude of traditional birth attendants towards sharing their knowledge and how do they go about this knowledge sharing?
2. What are the challenges to knowledge sharing among traditional birth attendants?
3. What are the referral practices among traditional birth attendants and the factors influencing referrals?
4. What working relationship exist between traditional birth attendants and orthodox medical practitioners?

Research methodology

This study employed the descriptive research design using qualitative approach. It was carried out in Ibadan, the capital and most populous city of Oyo State in the South-western part of Nigeria. Ibadan is the third largest city in Nigeria after Lagos and Kano and the largest city by geographical area. Majority of the people in Ibadan speak Yoruba language. The population for this study are traditional birth attendants in low income areas of Ibadan, Oyo State. The population of traditional birth attendants in these locations is however indeterminate.

Sampling procedure

Multistage sampling was adopted in selecting the respondents. At the first stage, purposive sampling was used in selecting only TBAs operating in low-income areas in the ancient core of the city. Thereafter, convenience sampling was applied, where respondents were selected based on their willingness to participate in the study. In addition to this, snowball sampling was also employed in which case, willing TBAs introduced the researchers to other TBAs who were also willing to participate in the study. Using the principle of saturation, the total of 25 TBAs were selected for the study. Saturation is the point at which an additional member of the population no longer provides additional insights (Given, 2016). Often times, interviewing about 12 participants of a homogenous population is adequate to achieve saturation (Guest, Bunce, & Johnson, 2006).

Data collection and analysis

Interview was the major data collection method. Face-to-face interviews were conducted in the homes of the TBAs. The interview schedule was divided into 2 sections. The first section collected data on the demographic characteristics of the TBAs which included age, gender, religion, marital status and educational qualification. The second section contained open-ended questions and elicited data on the TBAs' attitude towards knowledge sharing and challenges to knowledge

sharing. Data was also elicited on the TBAs' referral practices as well as their working relationship with orthodox practitioners. The interview schedule was translated into Yoruba language. Data collection lasted 2 months as it was not easy getting the TBAs to be interviewed. All the 25 TBAs willingly participated in the study and they were well informed that data collected would be used strictly for research purposes. The confidentiality of the TBAs was also assured while permission was sought from all the 25 TBAs to have the interviews recorded and none of them refused the request. Data collected in Yoruba language were transcribed and translated into English language. Thematic analysis was subsequently carried out in order to identify, analyse and report patterns in the responses by the TBAs (Braun & Clarke, 2006). The different themes generated are shown as quotations from the original responses by the TBAs.

Results

Socio- demographic characteristics of respondents

As shown in Table 1, majority of the TBAs that participated in the study were females (92.0%), while 84.0% were married. Over 60% were above 50 years old and 68.0% of the TBAs were educated at the secondary level. About 50% of them had spent above 20 years in the profession. Findings showed that while some of the TBAs learnt this trade through their parents, majority also received further training from the Government. Majority of them were Christians (60.0%), Muslims were 32.0%, while Traditional worshipers made up 4.0% of the respondents.

Table 1: Socio-demographic characteristics of respondents

Demographics	**Categories**	**Frequency**	**%**
Gender	Male	2	8.0
	Female	23	92.0
Age Range	Below 30 years	0	0.0
	31 – 40 years	6	24.0
	41 – 50 years	3	12.0
	51 – 60 years	8	32.0
	Above 60 years	8	32.0
Level of Education	No Formal Education	2	8.0
	Primary	5	20.0
	Secondary	17	68.0
	Tertiary	1	4.0
Marital status	Single	0	0.0
	Married	21	84.0
	Divorced	0	0.0
	Widowed	4	16.0
Years of Experience	10 years and below	2	8.0
	11 – 20 years	9	36.0
	21 – 30 years	7	28.0
	31 – 40 years	4	16.0
	Above 40 years	2	8.0
	Not answered	1	4.0

Religion	Christianity	15	60.0
	Islam	8	32.0
	Traditional	1	4.0
	Not answered	1	4.0

Attitude towards knowledge sharing

In order to understand the attitude of the TBAs towards sharing their knowledge, series of questions were asked during the interview session to bring out the relevant information on traditional birth attendants' attitude towards knowledge sharing. The questions included: *Do you share your knowledge/experience with other TBAs*? and *Why do you share your knowledge with them*? Major themes on their attitude were identified. Findings showed that knowledge hoarding was generally not a practice by these participants. In addition to transmitting their knowledge to apprentices, most of the TBAs shared their knowledge with other TBAs which apparently shows a positive attitude towards knowledge sharing as revealed in some of their responses.

> *We must share it, we cannot do the work alone. One cannot know it all in this profession. Every day we are learning* (Female, 70 years old, Above 50 years of experience).

> *My colleagues and I discuss about new things that we encounter while working. For example, when we have a case of an en-caul birth where a baby is born enclosed in the amniotic sac, we talk about it, we talk about new things we come across in our work. We share our knowledge with one another.* (Female, Over 40 years old, 22 years of experience)

Participants were asked why they shared their knowledge with other TBAs and their responses showed that knowledge about traditional birth attendance can only be sustained when it is shared with others and hoarding this knowledge may lead to knowledge loss. The participants believed that sharing their knowledge with fellow TBAs will not only assist their colleagues but it is ultimately beneficial as such colleagues are positioned to also assist them when needed.

> *The Yoruba people have an adage that says one does not praise a person who keeps wonders inside. If I am full of myself and refuse to share, I will not have anyone to attend to my patients when I am not around.* (Female, 50 years old, Over 25 years of experience)

> *Yes. There is no knowledge I cannot share. As I have said earlier, one person cannot have all the knowledge required for this profession. Some cases are confusing for me and I will also need others to help me out* (Female, 48 years old, 20 years of experience)

Participants were asked how they share their knowledge with other TBAs and informal discussion with colleagues was a dominant theme, especially whenever they encountered difficult cases.

Meetings of association of TBAs were also reported as avenue to share knowledge with fellow TBAs.

> *My colleagues and I discuss about new things that we encounter while working.* (Female, Over 40 years old, 22 years of experience)

> *Some call us on the phone that they have a patient and they have done so and so, it is in so and so stage, but they don't know the next step to take, we call one another and ask what has been used, what has been done, do this, do that.* (Female, 55 years old, 25 years of experience)

> *Sometimes we have meetings to discuss our knowledge and experiences, how to handle situations and what methods to use.* (Female, 40 years old, 20 years of experience)

> *They are supportive. Whenever we have meetings, we ask one another questions on things we don't know, and those that know them explain to us* (Female, 54 years old, Over 30 years of experience)

However, a respondent reported not sharing his knowledge with anybody except with members of his family.

> *No. I do not share it with anybody. I practice this with my family; wife and children. I share this knowledge with them because that was how I got to know it too. I was also taught by my father and was already practicing before he died* (Male, 40 years old, 10 years of working experience)

Challenges to knowledge sharing

Few of the participants expressed the challenges they encountered in sharing their knowledge with other TBAs and these included lack of trust due to some of their colleagues taking away their customers, while others expressed lack of trust due to the fear that their colleagues were into voodoo. Others cited failure of their colleagues to show appreciation for knowledge shared.

> *The challenges I have faced are much. A lot of people that I have shared my knowledge with have taken my patients. Do you understand what I am saying? For example, I have 10 pregnant women, and such a person takes six of them.* (Female, 70 years old, Above 50 years of experience).

> *Some people do not come back to give thanks or show appreciation after sharing knowledge with them."* (Female, 50 years old, Over 25 years of experience)

> *A lot of people come to me for advice and I share my knowledge with them but I am careful of colleagues I go to for knowledge because some of them use voodoo.* (Female, 53 years old, Over 30 years of experience*)*

Referral practices among traditional birth attendants

The TBAs were asked what they do when they cannot handle a child delivery. Most of them reported that patients were promptly referred to hospitals whenever they were confronted with cases they could not handle. According to most of the TBAs, they ensured their patients got orthodox medical care when needed so as to save their lives and the babies'.

> *I refer them to the hospital. We have doctors that we use* (Female, 65 years old, 37 years of experience)

> *God handles it. and the ones we cannot handle, we immediately call the doctors and they come to carry them to the hospital. All Traditional Birth Attendants have doctors and hospitals that they use* (Female, 62 years old, 25 years of experience).

Some TBAs' responses also showed that they had previously received training from government hospitals on patient referral.

> *I quickly refer cases that I cannot handle. When I finished my course at Adamasingba, we were given referral cards; one for emergency, when a pregnant woman is weak or needs blood. It is written inside in Yoruba, 'shortage of blood, difficulty in labour and long labour cases should be immediately referred'. I referred someone not long ago* (Female, Over 50 years old, Over 20 years of experience)

> *When we did our course, we were given two cards, a pink one and a blue one; the pink one is for emergencies while the blue one is for normal cases. We write on the cards pink card and follow them to the hospital. When we get there, we tell them that we are Traditional Birth Attendants, brief them on what we have done on the patients, what we have administered to them, this will help them to know what to do for them* (Female, 55 years old, 25 years of experience).

Many of the respondents who had preferred choice of hospital also mentioned the names of the hospital they referred their patients to.

> *If I am elsewhere and something of such happens I usually suggest taking the patients to Naomi Hospital at Oke Padi or Lifeway at Idi Arere* (Female, 50 years old, Over 25 years of experience)

> *The ones we can't handle, we refer them to Adéọ̀yọ́, or UCH, depending on the condition of each patient.* (Female, 52 years, Over 25 years of experience)

> *Yes, you see, most times, we go to Molete Medical Center often. When the women come to us and we notice some things in them, we take them to the hospital.* (Female, 65 years old, 37 years of experience)

It was interesting to know that many of the TBAs reported following their patients to the hospitals and following up until they got well.

> *Yes, we follow them because we don't want anything to happen to them.* (Female, 62 years old, Over 30 years of experience)

We follow them there so that the doctors will know that we were the ones that referred them. We even stay with them till the doctors finish their work. (Female, 53 years old, Over 30 years of experience)

Yes, we follow them. Till she is discharged, we will keep visiting. If she is operated, we will visit her till she is discharged. After she is discharged, we visit her at home as well. (Female, 60 years old, Over 25 years of experience)

Some reasons for following their patients were given by the TBAs. One of them was the need to give the doctors information on the patients' treatment history. A second reason was to ensure that patients actually went to the hospital as some patients were hesitant to go to the hospital because of the hospital bills which they thought might be unaffordable. Other TBAs followed their patients to allay the fear of patients who believed that their referral was synonymous to being subjected to Caesarean Section.

I usually send them with someone, but if it is a critical case, I follow them myself in order to give the doctor the patient's information and treatment history. (Female, 70 years old, Over 50 years of experience)

Yes, we don't leave them because some pregnant women are wicked, they might not go because of money or they may think that they will be operated. Some people automatically think that they will be operated once you ask them to go to the hospital. (Female, 40 years old, 20 years of experience)

Because we don't want them to waste their lives, we know they run away because of the money so we talk to them and take them to the hospital. Even if they don't have money the doctor will first of all attend to the patient, that is why we follow them. (Female, 40 years old, 18 years of experience)

However, one of the TBAs, a male reported not referring patients to hospitals or anywhere. The major reason for taking this position was the fear of being implicated.

I don't refer them to anybody. The family takes their patient to wherever they decide to. If I refer them, and something goes wrong, my reputation is at stake. (Male, 82 years, Over 40 years of experience)

Factors influencing referrals by TBAs

A major factor reportedly influencing referral by the TBAs was envisaged birth complications.

When I can't handle a situation, for example, the patient has convulsion or preeclampsia, I get scared and quickly refer to a doctor in order to save the patient's life (Female, Over 40 years old, 22 years of experience).

Sometimes I have difficult cases and I refer them to the hospital immediately in order to save life. Some people might be bleeding before even falling into labour and get rushed in. Whether they are registered with us or not, we have to rescue

them, and if it has gotten to a stage where they would need blood transfusion, we transfer them to the hospital. Sometimes during birth, the head of the baby might hang and after trying so much, the head will not come out, cases like these usually result in operation. Sometimes during the birth of twins, one is delivered while the other is stuck in the mother's womb. After trying all we can to save the life of both mother and child, with prayers, we send them to the hospital for doctor's assistance. Most of them either get operated or the doctor takes some really important steps that we as native Traditional Birth Attendants cannot take (Female, 48 years old, 20 years of experience)

However, some TBAs reported being skeptical about referring patients to hospitals because in some cases, doctors blamed them for the complications.

They abuse us that we are incompetent when a pregnant woman who has a problem is referred. (Female, 50 years old, Over 25 years of experience)

When we refer them to a Health Center, they might say, 'you have destroyed their lives', and it is a lie. Because there are differences in child delivery, you know our knowledge is limited, so when there are changes, we refer them. When we get there, they might say, it was after we harmed the patient that we brought her to them (Female, 62 years old, Over 30 years of experience)

Excessive hospital bill was another factor negatively associated with referrals. Some TBAs noted that patients hesitated to be referred because of high hospital bills. According to few TBAs, they eventually had to pay for some patients when they were unable to pay for their treatment. Others however reported that when such referred patients were charged higher bills at the hospital, they sometimes accused the TBAs of colluding with doctors to get a share of the money.

They sometimes complain about money because it is only those that are not rich that come to us. So, when they say that, we tell them that the bill will not be too much because we will beg them and talk to them on the patient's behalf. So even if they get there and they end up paying a lot, the important thing is that they got there (Female, 53 years old, Over 30 years of experience)

The pregnant women we have here are the ones that are not rich. We are friends in the neighbourhood where we live together, they come to us and whatever we can't handle we stylishly take them to the doctors, they wouldn't want to go because of the bills. They wouldn't want to go, we push them to go (Female, 54 years, Over 30 years of experience)

They complain that the hospitals charge them double of what we charge them or they say that we have a percentage that we have in the money they are charged at the hospital if we take them there" (Female, Over 40 years old, 22 years of experience).

Some won't be able to pay the bills and we end up paying for them (Female, 52 years old, Over 25 years working experience)

Working relationship between TBAs and orthodox medical practitioners

The TBAs were asked to freely express themselves on the working relationship between them and the orthodox medical practitioners. Majority of the TBAs reported having a good working relationship with orthodox medical practitioners which made it easier for them to refer patients they could not handle to the hospital.

> *We have a good relationship with them… If we don't have a good relationship with them, we won't be able to refer patients to them. We also send our patients to them for scan and various tests.* (Female, 40 years old, 20 years of experience)

> *You know we are closer to the people in the neighbourhood. We get into the neighbourhood and communities that they cannot get to. People are free to come to us with their problems and through that, we know where to refer them to, they are not free enough to go to the doctors like that. Some people do not like to go to the hospital, we stylishly take them there, because of the teachings that we have received from the doctors.* (Female, 53 years old, Over 30 years of experience)

> *They support us. When we take patients to them, they accept them once they know that we brought them, and they treat them well. They know that the patients we bring are not rich, so they won't inconvenience them. They don't underrate us as Traditional Birth Attendants and they treat us well* (Female, 54 years old, Over 30 years of experience)

Responses from the TBAs showed that the relationship between them and the orthodox practitioners was not one-sided. Apart from the TBAs referring patients to these doctors, majority of the TBAs reported that the doctors supported them by giving them advice on safe delivery. This is shown in some responses below:

> *They are the ones advising us and helping us when we get to the point where we need it.* (Female, 70 years old, Over 50 years of experience)

> *We have a good relationship. The doctors come to direct all of us. How do we handle child delivery? What challenges are we facing? They explain things to us. They tell us if you have a case that is tough, don't attempt to handle it, don't waste people's lives, and we follow their advice.* (Female, 54 years old, Over 30 years of experience)

> *They teach us, they educate us on the kind of cases we should bring to them. It is not all of them that are eventually operated. God created some people to be short, the doctors have advised us to refer those ones. Those that are giving birth for the first time, those that are giving birth to their fourth child, women with hunchback, women with swollen feet, you know some women have swollen feet when they are pregnant, they advised us not to take any of them. They advise and educate us to refer people like these to them. We work together. They educate us, they call us sometimes, text all the members of the association and explain that when a woman has been in labour for too long, they should be referred. That is the relationship we have with them* (Female, 47 years old, 20 years of experience)

However, two of the respondents expressed challenges in their working relationship. According to them, some orthodox medical practitioners behaved in a way that suggested that they were

competing with the TBAs. They stressed that such orthodox practitioners tried to discredit their work so that patients could be referred to hospitals. Excerpt from the interview transcript that support this theme is presented below;

> *If not for the spirit of God, you know when two people are doing the same thing, one person will not want the other person to be more successful. That is how it is between doctors and native Traditional Birth Attendants. They might think that women come to us a lot and they will start looking for any means to make us refer them to the hospital.* (Female, 60 years old, Over 25 years of experience)

> *The doctors we use know that we are doing what is right by referring patients we can't handle to them. But there are some doctors that want us to come to them, you know it is not all doctors that we work with, any one we take patients to and they don't treat our patients right, we don't use them again. Those doctors that we no longer patronize get angry, while those that we have never patronized at all say all sorts of things about us, when they see that we patronize some of their colleagues. These are the challenges we face with them. They say those Traditional Birth Attendants do things that are beyond them, they say all sorts of bad things about us, but those that we consult treat us well, they know us and they know that we do not waste the lives of our patients* (Female, 40 years old, 18 years of experience).

Discussion of findings

This study has investigated knowledge sharing and referral practices among TBAs in low-income urban areas in Southwest Nigeria. Findings revealed that the TBAs generally had a positive attitude towards knowledge sharing. Majority of the TBAs believed that their knowledge should be shared to prevent knowledge loss. Added to this is the belief in knowledge reciprocity such that their fellow TBAs with whom they had shared their knowledge would also be in a position to assist them when necessary. A dearth in studies that have investigated knowledge sharing among this group of traditional health practitioners is a limitation of this discussion. However, previous studies have reported that local communities are gradually losing their traditional medical knowledge (Anyaoku, Nwafor-Orizu, & Eneh, 2015; Sheng-Ji, 2001) due to lack of willingness by the holders to engage in knowledge sharing (Chakawa, 2015). According to Chakawa (2015), the desire to have more clients is one of the reasons traditional medical practitioners tend to display an individualistic approach to knowledge management. However, findings from this current study corroborate Adekannbi (2020) which reported a positive attitude towards knowledge transmission among traditional medical practitioners in South-west Nigeria. In the current study, the TBAs in these low-income areas generally did not see themselves as competitors, hence, they did not have an individualistic approach to managing the knowledge they possessed. Rather, knowledge reciprocity was reported as a strong motivation for knowledge sharing by the TBAs. They believed that their colleagues could be in a position to also share knowledge with them in the future, hence, knowledge sharing was freely carried out through informal discussions with colleagues and at meetings of association of TBAs. Previous studies although not on traditional medical practitioners, have similarly reported on the significant impact of knowledge reciprocity on knowledge sharing (Nguyen et al., 2019).

Some reported challenges to knowledge sharing were lack of trust, fear of colleagues being into voodoo and lack of appreciation on the part of some of their colleagues for knowledge shared.

Previous studies have reported on the significant role of personal or professional trust, as a prerequisite for knowledge sharing (Alexopoulos & Buckley, 2013; Kuo, 2013; Ng, 2022; Omar, 2018). Moreover, other studies have noted that sharing tacit knowledge, a dominant form of health knowledge, requires strong ties between the parties involved as weak ties make tacit knowledge sharing difficult (Augier & Vendelø, 1999; Granovetter, 1983). For some TBAs in the current study, they feared that sharing their knowledge with colleagues could lead to their clients being taken by the knowledge recipient. Also, while the TBAs generally shared their knowledge with colleagues, few of them reported hesitation with knowledge seeking from colleagues due to fear of their colleagues being into voodoo. Globally, health practices are closely related to religion (Gurung, 2019) and traditional medical practitioners are known to employ different indigenous methods when treating patients and these include herbal remedies, prayers, rituals, charms and voodoo (Johnson, 2021; Peltzer & Pengpid, 2019; van Ellewee, 2020). Moreover, four categories of traditional health practitioners are recognised in Sub-Saharan Africa and these are: herbalists; diviners and spiritualists; faith healers; and traditional birth attendants (Gurung, 2019). It is very likely that some TBAs also included the practice of divining which some of their colleagues reported not being comfortable with and which affected their consideration to seek knowledge from these ones.

The role of appreciation in promoting motivation for knowledge sharing cannot be overemphasised as studies on knowledge sharing have shown that motivation for knowledge sharing is closely tied to appreciation (Raza, Abidi, Arsalan, Shairf, & Qureshi, 2018). In other words, when individuals are appreciated they can be motivated to engage in knowledge sharing. Although lack of appreciation for knowledge shared which was reported as a challenge to knowledge sharing was not clearly defined by the two participants but studies have shown the role of appreciation in knowledge sharing which could be in form of verbal expressions of gratitude (Fischer, 2022), or other forms of rewards and incentives (Nguyen & Prentice, 2022; Raza et al., 2018). Other studies have also noted a negative relationship between rewards and tacit knowledge sharing (Wang, Liu, & Zhu, 2021; Zhao, Feng, Wei, & Wang, 2022). Adekannbi et al. (2014) also reported that traditional medical practitioners received monetary incentives for knowledge transmission from apprentices who had oblique relationship with the knowledge holder. However, in the current study, since only very few participants reported this challenge, it might be safe to assume that this is not a challenge common among this population.

A key finding in this study is that the TBAs had the practice of quickly referring difficult cases to the hospital and following up to ensure the patients actually went to these hospitals. This is an encouraging development considering previous studies in Nigeria that have reported on TBAs not referring pregnant women to hospitals and leading to serious complications (Okafor, Arinze-Onyia, Ohayi, Onyekpa, & Ugwu, 2015). Discussions with the TBAs showed a group of traditional medical practitioners who seemed to put the desire to save the lives of pregnant women and their babies ahead of any monetary benefits. They were conscious of the implication of failure on their reputation as TBAs, hence, they did not believe in holding on to patients when they obviously needed to be referred. A possible explanation for this attitude of the TBAs is the training they had previously received from government agencies on the need to quickly refer difficult cases to the hospitals. In addition to this, contrary to studies that have shown that most TBAs have no formal education (Amutah-Onukagha et al., 2017; Eades, Brace, Osei, & LaGuardia, 1993; Ofili & Okojie, 2005), almost 70% of TBAs in the current study were educated at the Secondary school level. Moreover, according to Ofili and Okojie (2005), a minimum level of education is significantly associated with TBAs referral of difficult cases to orthodox health practitioners.

The TBAs freely expressed themselves on the working relationship between them and the orthodox medical practitioners. Majority of the TBAs reported having a good working relationship with orthodox medical practitioners which made it easier for them to refer patients they could not handle to the hospital. Responses from the TBAs showed that the relationship between them and the orthodox practitioners was not one-sided. Apart from the TBAs referring patients to these doctors, majority of the TBAs reported that the doctors supported them by giving them advice on safe delivery. This reported good working relationship is a positive development as this finding contrasts with previous studies that have reported uneasy working relationship between traditional medical practitioners and orthodox health practitioners including doctors, nurses and midwives (Adekannbi, 2018; Ngunyulu, Mulaudzi, & Peu, 2020). A reality for most developing countries is that the knowledge of the TBAs as well as their support in primary healthcare is not likely to be discontinued in the nearest future especially in rural communities and low-income urban areas. These TBAs have a strong connection with their communities and are usually respected and trusted by their patients. As shown in the current study, most of the TBAs reported following their patients to hospitals when referred. Moreover, the TBAs continued to offer support to these pregnant women even after they had been referred to hospitals. Such connection is not experienced with orthodox health practitioners. Hence, continuous improvement in the good working relationship between the TBAs and the orthodox health practitioners is crucial considering the fact that in addition to inaccessibility of orthodox health facilities, affordability of these services continues to be a major reason many pregnant women especially in low-income areas prefer the services of TBAs (Olaore, Ezeokoli, & Ogunlade, 2020).

Conclusion

The role of TBAs in maternal health especially in developing countries of Africa cannot be overemphasised. Findings from this study on the TBA's positive attitude to knowledge sharing and referral practices clearly shows a change of narratives about this population of traditional health practitioners and this is a positive step towards improvement in maternal health. The knowledge of TBAs will continue to be relevant in strategies for promoting improved maternal health especially in low-income areas where they constitute the main source of health care for pregnant women. Hence, the study recommends continuous training of TBAs with the aim of facilitating teamwork among the TBAs, as well as with orthodox health practitioners. The TBAs in the current study are generally very comfortable working with their orthodox counterparts and such partnership will enable the TBAs to up-skill their delivery practices. TBAs are respected in their communities as holders of cultural traditions, who utilize indigenous knowledge for maternal health care, hence effort to improve maternal and infant health should always include them as active participants and such strategy will surely go a long way in helping Africa to achieve the 2030 Sustainable Development Goal 3 which targets reduction of maternal mortality to less than 70 per 100,000 live births.

References

Abdullah, M. I., Dechun, H., Ali, M., & Usman, M. (2019). Ethical leadership and knowledge hiding: a moderated mediation model of relational social capital, and instrumental thinking. *Frontiers in Psychology, 10*, 2403. doi: 10.3389/fpsyg.2019.02403

Abodunrin, O. L., Akande, T. M., Musa, I. O., & Aderibigbe, S. A. (2010). Determinants of

referral practices of clients by traditional birth attendants in Ilorin, Nigeria. *African Journal of Reproductive Health*, 14, 77-84.

Adekannbi, J., Olatokun, W. M., & Ajiferuke, I. (2014). Preserving traditional medical knowledge through modes of transmission: A post-positivist enquiry. *SA Journal of Information Management*, 16, 1-9. doi.org/10.4102/sajim.v16i1.598

Adekannbi, J., Olatokun, W. M., & Ajiferuke, I. (2016). Predictors of traditional medical knowledge transmission and acquisition in South West Nigeria. *Information Development*, 32, 566-578. doi.org/10.1177/0266666914561534

Adekannbi, J., (2018). Relationship between orthodox and traditional medical practitioners in the transmission of traditional medical knowledge in Nigeria. *Health Information and Libraries Journal*, 32, 566-578. doi.org/10.1111/hir.12209

Adekannbi, J. O. (2020). Motivational factors influencing attitude towards knowledge transmission by traditional medical practitioners in rural communities of South West Nigeria. *Asian Review of Social Sciences*, 9(1), 1-8.

Alexopoulos, A. N., & Buckley, F. (2013). What trust matters when: The temporal value of professional and personal trust for effective knowledge transfer. *Group & Organization Management*, *38*(3), 361-391. doi.org/10.1177/1059601113488939

Amutah-Onukagha, N., Rodriguez, M., Opara, I., Gardner, M., Assan, M. A., Hammond, R., ... & Farag, E. (2017). Progresses and challenges of utilizing traditional birth attendants in maternal and child health in Nigeria. *International Journal of MCH and AIDS*, *6*(2), 130. doi.org/10.21106%2Fijma.216

Anyaoku, E. N., Nwafor-Orizu, O. E., & Eneh, E. A. (2015). Collection and preservation of traditional medical knowledge: Roles for medical libraries in Nigeria. *Journal of Library and Information Sciences*, *3*(1), 33-43. doi.org/10.15640/jlis.v3n1a2

Asemahagn, M. A. (2014). Knowledge and experience sharing practices among health professionals in hospitals under the Addis Ababa health bureau, Ethiopia. *BMC Health Services Research*, *14*(1), 1-10. https://doi.org/10.1186/1472-6963-14-431

Assem, P., B., & Pabbi, K., A. (2016). Knowledge sharing among healthcare professionals in Ghana. *VINE Journal of Information and Knowledge Management Systems*, 46(4), 479-491. https://doi.org/10.1108/VJIKMS-08-2015-0048

Augier, M., & Vendelø, M. T. (1999). Networks, cognition and management of tacit knowledge. *Journal of Knowledge Management*, 3(4), 252-261. https://doi.org/10.1108/13673279910304005

Braun, V. & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3 (2), 77-101. doi.org/10.1191/1478088706qp063oa

Chakawa, J. (2015). Challenges of a traditional medical practitioner in the Zimbabwean set-up: Primary definers and grassroots perspectives. *The Dyke*, *9*(1), 29-40.

Chizoba, A. F., Chineke, H. N., & Adogu, P. O. U. (2020). Roles and challenges of traditional birth attendants in prevention of mother to child transmission of HIV in Nigeria - A brief review. *Journal of Advances in Medicine and Medical Research*, 32(20), 58-67. doi.org/10.9734/jammr/2020/v32i2030685

Dynes, M. M., Stephenson, R., Hadley, C., & Sibley, L. M. (2014). Factors shaping interactions among community health workers in rural Ethiopia: Rethinking workplace trust and teamwork. *Journal of Midwifery & Women's Health*, *59*(s1), S32-43. doi.org/10.1111/jmwh.12135

Eades, C. A., Brace, C., Osei, L., & LaGuardia, K. D. (1993). Traditional birth attendants and maternal mortality in Ghana. *Social Science & Medicine*, *36*(11), 1503-1507. doi.org/10.1016/0277-9536(93)90392-h

Fenwick, T., & Nerland, M. (2014). *Reconceptualising professional learning. Sociomaterial knowledges, practices and responsibilities*. New York, NY: Routledge.

Fischer, C. (2022). Incentives can't buy me knowledge: the missing effects of appreciation and aligned performance appraisals on knowledge sharing of public employees. *Review of Public Personnel Administration*, *42*(2), 368-389. https://doi.org/10.1177/0734371X20986839

Given, L.M. (2016).*100 Questions (and answers) about qualitative research*, Sage, Thousand Oaks, CA.

Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory* 1, 201–233. doi.org/10.2307/202051

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82. doi.org/10.1177/1525822X05279903

Gurung, R. A. (2019). Cultural influences on health. *Cross-Cultural Psychology: Contemporary Themes and Perspectives*, 451-466. doi.org/10.1002/9781119519348.ch21

Johnson, S. A. (2021). *Perceptions of Traditional Healing for Mental Health Disorders in the Dominican Republic* (Doctoral dissertation, The Chicago School of Professional Psychology).

Kanjo, C. (2012). Strengthening the link between traditional and modern practices for improving data quality in health information systems: The case of Malawi. *The Electronic Journal of Information Systems in Developing Countries*, *53*(1), 1-17. doi.org/10.1002/j.1681-4835.2012.tb00375.x

Kuo, T. H. (2013). How expected benefit and trust influence knowledge sharing. *Industrial Management & Data Systems*, 113(4), 506-522. doi.org/10.1108/02635571311322766

Maheshwari, B., Sarrion, M., Motiani, M., O'Sullivan, S., & Chandwani, R. (2021). Exploration of factors affecting the use of Web 2.0 for knowledge sharing among healthcare professionals: An Indian perspective. *Journal of Knowledge Management*, 25(3), 545-558. doi.org/10.1108/JKM-02-2020-0105.

Ng, K. Y. N. (2022). Effects of servant leadership, affective commitment, and trust on knowledge sharing tendency in the financial industry. *Knowledge Management Research & Practice*, 1-19. doi.org/10.1080/14778238.2022.2110004

Ngunyulu, R. N., Mulaudzi, F. M., & Peu, M. D. (2020). Traditional birth attendants' experiences during the provision of post-natal care in Mopani District, Limpopo province of South Africa. *Health SA Gesondheid*, 25(0), a1468. doi. org/10.4102/hsag.v25i0.1468.

Nguyen, T. M., Nham, T. P., Froese, F. J., & Malik, A. (2019). Motivation and knowledge sharing: a meta-analysis of main and moderating effects. *Journal of Knowledge Management*, *23*(5), 998-1016. https://doi.org/10.1108/JKM-01-2019-0029

Nguyen, T. M., & Prentice, C. (2022). Reverse relationship between reward, knowledge sharing and performance. *Knowledge Management Research & Practice*, *20*(4), 516-527. https://doi.org/10.1080/14778238.2020.1821588

Nkunkwane, N. N., & Fombad, M. C. (2022). Knowledge sharing for maternal health at a public hospital in South Africa. *Journal of Information & Knowledge Management*, *21*(01), 2250006. doi.org/10.1142/S021964922250006X

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press Inc., Oxford.

Ofili, A. N., & Okojie, O. H. (2005). Assessment of the role of traditional birth attendants in maternal health care in Oredo Local Government Area, Edo State, Nigeria. *Journal of Community Medicine and Primary Health Care, 17*(1), 55-60. doi.org/10.4314/jcmphc.v17i1.32428

Okafor, I. I., Arinze-Onyia, S. U., Ohayi, S. A. R., Onyekpa, J. I., & Ugwu, E. O. (2015). Audit of childbirth emergency referrals by trained traditional birth attendants in Enugu, Southeast, Nigeria. *Annals of Medical and Health Sciences Research, 5*(4), 305-310. doi.org/10.4103%2F2141-9248.160180

Olaore, A.Y., Ezeokoli, N. R., & Ogunlade, V. B. (2020). Community Traditional Birth Attendants and Cultural Birthing Practices in Nigeria. In: Todd, S., Drolet, J. (eds) Community Practice and Social Development in Social Work. Social Work. Springer, Singapore. doi.org/10.1007/978-981-13-6969-8_5

Olusanya, B. O., Alakija, O. P., & Inem, V. A. (2010). Non-uptake of facility-based maternity services in an inner-city community in Lagos, Nigeria: An observational study. *Journal of Biosocial Sciences*, 42(3), 341–358. doi.org/10.1017/s0021932009990526

Olusanya, B. O., Inem, V. A., & Abosede, O. A. (2011). Infants delivered in maternity homes run by traditional birth attendants in urban Nigeria: A community-based study. *Health care for Women International, 32*(6), 474-491. doi.org/10.1080/07399332.2011.565531

Omar, A. S. S. (2018). Trust on knowledge-sharing behaviour among academicians in public universities: A review. *Journal of IT in Asia, 8*(1), 1-6. doi.org/10.33736/jita.813.2018

Onyedinefu, G. (2020, March 4). Ratio of Nigerian doctors to population is 1: 2753 – FG. *Business Day.* https://businessday.ng/uncategorized/article/ratio-of-nigerian-doctors-to-population-is-1-2753-fg/

Opesade, A. O., & Alade, F. I. (2021). Theory of planned behaviour factors and personality traits as determinants of the knowledge-sharing behaviour of pharmacists in Oyo State, Nigeria. *Journal of Librarianship and Information Science*, 53(1), 75-88. 0961000620919783. doi.org/10.1177/0961000620919783

Peltzer, K., & Pengpid, S. (2019). Traditional health practitioners in Indonesia: Their profile, practice and treatment characteristics. *Complementary Medicine Research, 26*(2), 93-100. doi.org/10.1159/000494457

Raza, S. A., Abidi, M., Arsalan, G. M., Shairf, A., & Qureshi, M. A. (2018). The impact of student attitude, trust, subjective norms, motivation and rewards on knowledge sharing attitudes among university students. *International Journal of Knowledge and Learning, 12*(4), 287-304. doi.org/10.1504/IJKL.2018.095955

Sheng-Ji, P. (2001). Ethnobotanical approaches of traditional medicine studies: some experiences from Asia. *Pharmaceutical Biology, 39*(sup1), 74-79. https://doi.org/10.1076/phbi.39.s1.74.0005

Sibley, L., M. & Sipe, T., A. (2006). Transition to skilled birth attendance: Is there a future role for trained traditional birth attendants? *Journal of Health Population Nutrition,* 24(4), 472–478.

Tabong, P. T. N., Kyilleh, J. M., & Amoah, W. W. (2021). Reasons for the utilization of the services of traditional birth attendants during childbirth: A qualitative study in Northern Ghana. *Women's Health, 17*, 17455065211002483. doi.org/10.1177%2F17455065211002483

van Ellewee, S. (2020). *An evaluation of the legal framework for African traditional healers in South Africa* (Doctoral dissertation, North-West University (South Africa)). http://repository.nwu.ac.za/bitstream/handle/10394/36121/Van%20Ellewee_S.pdf?sequence=1

Wang, Y., Liu, J., & Zhu, Y. (2018). Humble leadership, psychological safety, knowledge sharing, and follower creativity: A cross-level investigation. *Frontiers in Psychology, 9*, 1727. doi: 10.3389/fpsyg.2018.01727

World Bank (2019). Maternal mortality ratio (modeled estimate, per 100,000 live births). Retrieved from https://data.worldbank.org/indicator/SH.STA.MMRT?locations=NG

World Health Organisation (2000). Traditional and modern medicine: Harmonizing the two approaches. Retrieved from http://www.wpro.who.int/NR/rdonlyres/7F5201AF-79FA-4BF8-9BE5-4A55B541706C/0/RS199911CHN.pdf.

World Health Organization (2004). Making pregnancy safer. The critical role of the skilled attendant: A joint statement by WHO international capital management (ICM) and International Federation of Gynaecology and Obstetrics (IFGO). Retrieved from https://apps.who.int/iris/bitstream/handle/10665/42955/9241591692.pdf?sequence=1&isAllowed=y

World Health Organization (2015). Nigeria. Retrieved from https://www.who.int/workforcealliance/countries/Nigeria_En.pdf

World Health Organisation (2019). Maternal health in Nigeria: Generating information for action. Retrieved from https://www.who.int/reproductivehealth/maternal-health-nigeria/en/

Zhao, R., Feng, N., Wei, F., & Wang, Y. (2022). Rewards and knowledge sharing in the CoPS development context: the moderating role of transformational leadership. *Journal of Knowledge Management*, (ahead-of-print). doi.org/10.1108/JKM-10-2021-0780