Factors Influencing Indigenous Knowledge Data Elicitation from Herbal Medicinal Practitioners in South-Western Nigeria

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Abstract

Indigenous knowledge (IK) has faced and is still facing threats of extinction owing to lack of or inadequate documentation of its processes and usefulness. Researches in IK have, for many years, suffered a herculean task of data elicitation which in essence has negatively affected its documentation. This study was carried out to establish factors that influence IK data elicitation. Traditional medicinal indigenous knowledge (MIK) formed the scope of the investigation with a limit to herbal medicine practices in South-western Nigeria. Grounded theory research design employing interviewing and direct observation data collection methods was used to collect data from purposive sampled respondents of 20 herbalists across six states of South-western Nigeria. Findings revealed that familiarity and compensation facilitate openness of knowledge holders to share information. Thus, researchers should engage the service of key informants and be willing to compensate knowledge holders for their effort so as to achieve a successful enquiry process.

Keywords: South-western Nigeria, Data elicitation, Indigenous knowledge, grounded theory, Traditional medicinal indigenous knowledge

Introduction

In the past few decades, interest in indigenous knowledge (IK) has grown significantly. People now crave for IK in every endeavour of life: in health, education, even local technology. According to Daes (1993), people

seek IK in many areas, some of which are scientific, agricultural, technical and ecological knowledge. Despite this increase in awareness and acceptance of IK as a sustainable way to foster development, particularly in Africa, there exists a huge hindrance to its full integration with sustainable development. Wiersema (2003) acknowledged that IK are acquired or created through non-scientific investigation and principally through long years of intimacy with the bio-diversity of the diverse localities from which they are developed. Rajasakeran (1992) as cited by Msuya (2007), in an attempt to define Indigenous Knowledge (IK), states that it is a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments and intimate understanding of the environment in a given culture. The knowledge is orally transmitted and implicit in nature. The acquisition process entails social, cultural and environmental interactions among people and between them and their environment. Thus, IK is informal, implicit, tacit and bare of any form of formal documentation, which happens to be a major problem (Atte, (1989), Purcell (1998), Morolo (2004), Kunwar and Bussmann (2008)).

Documentation has been defined variously by different researchers as an act or instance of authenticating with documents (Maden, Kongren, & Limbu, 2008); as a process of ensuring conformity to historical facts (Paudel, 2004). The idea of eliciting IK data for documentation of indigenous practices is based on the observation that carefully documented knowledge can provide excellent guidance for policy making, project planning and further research efforts that can sustain development and preserve knowledge for posterity. It is understood that indigenous knowledge has much to offer and teach the global communities (Moahi, 2007). Research in and documentation of IK has been identified as the only means IK can be preserved and be made available to development workers worldwide for utmost exploitation of its uses as noted by Moahi (2007). The traditional mode of IK transfer, which is oral tradition, has made IK vulnerable to gradual disappearance, as individuals who are the custodians of this knowledge die so dies the knowledge (Moahi, 2007). Tikai and Kama (2010), in their study of indigenous knowledge and its role to sustainable agriculture in Samoa, recommended proper recording and documentation of indigenous knowledge for agriculture.

However, IK documentation is plagued with one major factor: data elicitation. IK data elicitation can be defined as a process of eliciting IK information from IK holders. Researchers in Africa find it a complex task

accessing information about Africa indigenous knowledge (AIK) from the local holders. According to Hart (1986), problems of knowledge elicitation can arise from ignorance of knowledge possession and inability to explicate knowledge among many others. Informants in IK elicitation find it hard to give detailed descriptions of what they know and how they are used. In fact, the process of strongly probing the knowledge holder can get in the way of his own perceptions about what he does. This is because, much of the knowledge they possess is tacit. In other words, their knowledge is acquired through experience and long years of interaction with nature and they are implicit in nature. Many other authors have also identified issues like language barrier, communication skill, researcher's grand standing, unwillingness on the part of the knowledge holders and many more as problems plaguing IK elicitation (Werner & Schoepfle (1987a & b); Hart (1986); Breuker & Wielinga (1987); Mwamba *et al* (1996); Abioye, Yetunde, & Halima (2011)).

The objective of the study was to empirically establish the factors that influence IK data elicitation from herbal medical practitioners in south-western Nigeria using grounded theory. South-western Nigeria is a geo-political zone of Nigeria mainly populated by a group of people called the Yoruba. The people of South-western Nigeria share the same culture and tradition with minor variations along the continuum of their settlements. The Yoruba constitute 21% of Nigeria's population of 174.5 million according to Central Intelligence Agency (CIA) world factbook 2013 ("CIA World Factbook", 2013) and they are predominantly rural settled indigenous people. They occupy Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states, all of which make up the South-western States. Their practices, including religion, system of governance, arts and culture, how they interact with their environment for sustenance in terms of food, health and environmental preservation, constitute major sources of IK investigation.

Medical Indigenous Knowledge (MIK) in South-western Nigeria

Traditional medicine is a concept that makes reference to health practices, knowledge and beliefs. It incorporates plants, animals and mineral based medicines, spiritual therapies, manual techniques and exercises. It applies these components singularly or in combination to treat, diagnose and prevent illnesses or maintain well being (NNMDA, 2008; WHO, 2005). The pharmacological treatment of disease began long ago with the use of herbs (Schulz *et al*., 2001). Methods of folk healing

throughout the world utilise commonly used herbs as part of their tradition.

The Yoruba, who are the major tribe in South-western Nigeria are predominantly rural and indigenous. Their many years of migration and over one thousand years' occupation of their present geographical location presumes possession of wealth of knowledge in their diverse areas of culture, occupation (which is predominantly farming), and medicinal practices, developed through their interaction with their physical environment (plants, animals, bodies of water, and the cosmos). This knowledge is dynamic and varies slightly from one community to another. Despite their wealth in IK, of particular interest to this study is the IK in the area of herbal medicine. Health and healing are of fundamental importance among Yoruba people, thus their mundane experiences mirror their passion for good health (Odugbemi, 2006; Olademo, 2012).

Historically, the Yoruba were primarily farmers. It is estimated that at one time nearly 70 percent of the people participated in agriculture and ten percent worked as crafts people and traders within the towns. Yoruba land is characterized by numerous densely populated urban centres with surrounding fields for farming. The political and social systems vary greatly in different regions, and allegiance is uniformly paid to the large urban centre in the area, rather than to a singular centralized authority. Each town has a leader (Oba), who may achieve his position in different ways including inheritance, gaining the position through participation in title associations, or being personally selected by an Oba already in power. Every Oba, however, is considered to be a direct descendant of the founding Oba in each city. A council of chiefs usually assists the Oba in his decisions. Title associations, such as the ogboni, play an important role in assigning and balancing power within the cities.

The Yoruba claim that they have 401 deities; in truth, there are more than these. The complexity of their cosmology has led Western scholars to compare them to the Ancient Greeks and their remarkable pantheon. Yoruba deities are known as orisha, and the high god is Olodumare. No organized priesthoods or shrines exist in honour of Olodumare, but his spirit is invoked to ask for blessings and to confer thanks. The Yoruba believe that when they die they enter the realm of the ancestors where they still have influence on earth. Annual homage is paid to the grave sites of one's forebears, and lineage heads are responsible for honouring all

deceased members of the lineage through a yearly sacrifice. Masquerade (egungun) appear at funerals and are believed to embody the spirit of the deceased person. Other important orishas include Eshu, the trickster; Shango, the god of thunder; and Ogun, the god of iron.(Abimbola, 2006; Oyelakin, 2009).

A custodian of traditional medicine in Yoruba land is usually called healer (or medicine man) and by training may be a diviner (herbalist or Ifa priest) and/or a head of clan or homestead tradition. Healing is the restoration of both physical and spiritual essence of man and animal. The healer is usually someone with sufficient knowledge about the people's worldview and belief system (Gbadegesin & Makinde, 1988). He/she is usually vast in the knowledge of herbs, their names, and uses as well as how each herb should be used. Likewise, there are certain deities (gods) that are considered as custodians of herbs for healing. The healer is expected to know and be in good terms with such deities which include *Sanpona*, *Osanyin, Obatala*, *Osun, Ogun, Olokun* and other primordial beings believed to control certain ailments (Sawandi, 2009). The training for the healer is multifaceted and robust because the aim is to equip him/her to be capable of handling any disease and effect healing in any sick person that may require attention.

According to Awojoodu and Biran (2009), spiritually, the healer should be in close contact with *Osanyin,* the deity of herbs and healing. The healer should observe rules and regulations of *Osanyin,* especially the taboos of the deity. Training of the healer is in two dimensions: observation and recitations. The trainee is attached to a master healer who instructs and directs the student in the modalities of healing on a daily basis. The trainee is required to memorize names and features of different herbs and their uses. Training period varies and is usually determined by some factors including brilliancy of the student, the needs of the master trainer and the release from *Osanyin,* the deity of herbs and healing. Since diagnosis and prescription for healing is based on consultations with the supernatural, which among the Yoruba is chiefly through Ifa, the trainee may also receive training in the science of divination. Indeed some scholars postulate that traditionally, every healer is essentially a diviner and his/her profession is incomplete without the ability to use any of the different methods of divination (Oyelakin, 2009).

The results of such consultations will provide indications on the process of healing and this may include sacrifice, pharmaceutical mixtures, or the giving of alms. Some sicknesses may require the healer to observe fasting and offer personal sacrifices to even arrive at the root causes of the sickness. By implication then, the proficiency of the healer would have bearing on the efficacy and speed of healing. Usually, when some of these healers run into problem with a knotty case, they consult other healers regarded as being more knowledgeable. In addition, the healer is part of the healing process. For one, the client should be confident in the healer's capabilities, and the healing of the patient, especially in serious cases. It has a strong bearing on the reputation of the healer (Olademo, 2012; Abimbola 2006; Olajubu, 2003).

Type of MIK

MIK was identified in the course of this study along three main dimensions among the Yoruba. These are: purely spiritual MIK which is based on ritual, incantations and mental application of certain understood natural laws; purely physical MIK, which is based on the use of herbs and animals without any ritual element or incantation; and MIK that combines the two types earlier mentioned. Many healers in Yoruba land however practise medicine using the different types of MIK with no marked distinction as remedies depend on the type of illness presented by each client at the point of consultation. Present practice of traditional medicine however seeks to promote the use of herbs only for efficacious herbal remedies to diverse diseases. Some of these medicine men have acquired western education and are knowledgeable in herbal preparations which explain their establishment of thriving healing homes and maternity centres in Yoruba land and beyond. As Olademo (2012) reiterated that traditional healing is achievable without prior consultation with metaphysics. Herbs and roots that have been noted for their efficacy abound in Yoruba land.

Methodology

The study was carried out in Iyin-Ekiti, Ekiti State; Akure, Ondo State; Oshogbo, Osun State; villages around Abeokuta in Ogun State; Ikorodu, Lagos State; and Iseyin, Oyo State; using grounded theory. Instruction for undertaking research using grounded theory came primarily from three sources: Bernard (2000), Charmaz (2006), and Dey (1999). The nature of this study is qualitative because it produced descriptive data,

using words and sentences to qualify and record information (Bless, Higson-Smith, & Kagee, 2006; Brynard & Hanekom, 1997; Nachmias & Nachmias, 1996). The goal in qualitative research is to collect data, categorise and analyse the data, and develop grounded theory, a process called analytic induction (Nachmias & Nachmias, 1996). The theory is called grounded theory because it is not a theory per se, but a set of steps or procedures that leads to development of a theory. As outlined by Bernard (2000), the mechanics of grounded theory are as follows:

(i) Produce transcripts of interviews and read through a small sample of text.
(ii) Identify potential analytic categories – that is, potential themes – that arise.
(iii) As the categories emerge, pull all the data from those categories together and compare them.
(iv) Think about how categories are linked together.
(v) Use the relations among categories to build theoretical models, constantly checking the models against the data – particularly against negative cases.
(vi) Present the results of the analysis using exemplars, that is, quotes from interviews that illuminate the theory.

In-depth interviewing and direct observation was used as methods of data collection. The interview was used to elicit knowledge of the herbal practitioners about their practices, while the direct observation was used to gather information by observing their practices. These communities were selected because they are either rural or have substantial rural settlements in their fringes, and because they have a substantial number of traditional medicine practitioners. Geographic and other practical considerations such as accessibility and linguistic factors as well as familiarity with the culture of the target area of the study also played significant roles in the final selection of the study location and choice of setting in this qualitative field research (Nachmias and Nachmias, 1996). Purposive sampling technique was used to select twenty (20) participants across the six states (Isaac and Michael, 1997). According to Koro (2005) and Warren (1990), elderly people are the custodians of IK. The sample was biased towards the elderly people, both men and women. They were interviewed using the following semi-structured questions among many others: (a) Briefly describe yourself and how you acquire your herbal knowledge? (b) How do you practice herbal medicine? (c) Are you open to sharing your knowledge about herbal medicine with researchers? If "yes", how open and what are the conditions

involved? If "no" why? Table 1 shows the distribution of the selected 20 participants across the six states of south-western Nigeria.

Table 1: Sample distribution across six states of south-western Nigeria

State			Ekiti (Iyin-Ekiti)	Ondo (Akure)	Osun (Oshogbo)	Oyo (Iseyin)	Ogun (Abeokuta)	Lagos (Ikorodu)	**Total Number**
No. of Participant	**Male**	*C	4	1	-	-	-	-	**5**
		*I	-	-	2	4	4	1	**11**
	Female	*C	-	1	-	-	-	-	**1**
		*I	-	1	-	-	-	2	**3**
Total Number			4	3	2	4	4	3	**20**

*C = Christianity; *I = Islam

The participants were not equally distributed across the six states owing to issues surrounding accessibility and openness of herbal medicinal practitioner. These issues were discussed fully in the findings and discussion section. The participant distribution is acutely skewed towards male gender and Islamic religion.

Collected interview data were categorised to elicit major themes under each category for each respondent responses. The themes are: nature of practice, type of practice, source of knowledge, respondents' opinion on knowledge sharing, gender, and religion. These themes were then compared for each state and then between states to understand the relationship in the IK of the individual states as well as testing the validity of the data collected. The relationship or lack of it deducted from the compared themes, as well as the result of the deductions made from the observation, leads to the establishment of the factors that facilitate IK data elicitation.

Results and discussion

The findings and the inference made from the findings are presented in this section.

Findings: categories and themes and their distribution

The categories and themes that emerged from data collected are presented in Table 2. The table shows the distribution of the themes across the six states and their percentage distribution. The participants in the study range between 35 and 70 years of age.

Table 2: Frequency distribution of responses

SN	Categories	Sub-categories	Frequency Distribution							
			Osun	Ekiti	Ondo	Ogun	Oyo	Lagos	Total	Percentage (%)
1	Nature of practice	a) Commercial	1	3	2	3	4	3	16	80
		b) Non – Commercial	1	1	1	1	-	-	4	20
2	Type of practice	a) General herbal medicine	1	4	1	3	1	-	10	50
		a) Pharmacological herbal medicine	-	-	2	-	-	2	4	20
		b) Gynaecological herbal medicine	1	-	-	-	-	-	1	5
		c) Divination herbal medicine	-	-	-	1	3	1	5	25
3	Source of Knowledge	a) Inherited	2	3	2	2	2	2	13	65
		b) Training	-	1	-	-	-	-	1	5
		c) Inherited + Training	-	-	1	2	2	1	6	30
4	Gender	a) Male	2	4	1	4	4	1	16	80
		b) Female	-	-	2	-	-	2	4	20
5	Religion	a) Christianity	-	4	2	-	-	-	6	30
		b) Islam	2	-	1	4	4	3	14	70
6	Respondents' Knowledge sharing opinion	a) Openness	2	4	3	4	4	3	20	100
		b) Familiarity	2	2	2	4	3	1	14	70
		c) Reluctance with dangerous knowledge		3					3	15
		d) Compensation Yes	1	3	3	3	4	3	17	85
		No	1	1	-	1	-	-	3	15
		e) Promotion of communal well being		1		3	1	1	6	30
		f) Improvement of herbal practice					1		1	5
		g) Sharing only with mature persons		1				1	2	10

In Table 2, the emergence of themes like source of knowledge, nature of practice, type of practice, gender, religion and respondents' knowledge sharing opinion with their various frequency distributions within each state and across the states represents the findings in this research. These findings are discussed according to the themes as follows:

(a) Source of Knowledge: Three categories of source of Knowledge emerged- inherited, training, and inherited and training. As observed, 65% of the participants sourced their knowledge from inheritance alone, 5% sourced their knowledge from training and 30% sourced their knowledge from a combination of inheritance and training. This has implication on the entire results. For instance, only those who acquired their knowledge as inheritance practise a non-commercial herbal medicine. Likewise, every one of those who would not require compensation as a precondition for knowledge sharing sourced their knowledge from inheritance.

(b) Nature of practice: Two categories emerged under the nature of herbal medicine practice in south-western Nigeria. These are commercial practice and non-commercial practice. The Table shows that 75% of the participants interviewed practise their herbal medicine at a commercial scale. While the remaining 25% use their knowledge for humanitarian purposes. The latter can afford to give their knowledge out free of charge because they did not pay to acquire the knowledge and neither did they use the knowledge as a source of income. Every other participant who acquired his or her knowledge through training or went for training in addition to inherited knowledge would like some form of compensation before he/she could share his/her knowledge.

(c) Type of practice: Herbal medicine is practiced in south-western Nigeria in diverse forms. Some of these forms emerged from the data collected from our participants and they are: General, Pharmacological, Gynaecological, and Divination herbal medicine practices. Of all these forms of herbal medicine practice, only general herbal medicine practice does not require some form of speciality. Every other form mentioned above specialises in the type of herbal medicine practice they have chosen. This means a gynaecologist focuses mostly on gynaecology, but may be able to perform also in the area of pharmacology or divination herbal

medicine. Another observation was the fact that 50% of the participants interviewed practise general herbal medicine. This implies that there are more people in the practice of general herbal medicine than in any specialised area.

(d) Respondents' Knowledge sharing opinion: While all the participants are of the opinion that they have a positive disposition to openness in terms of sharing their knowledge, 70% and 85% of the participants require familiarity and compensation respectively as a prerequisite for their openness. This implies that, although IK in the area of herbal medicine is not some mystery shrouded in black secrecy, there are still some preconditions to its sharing. It is only those who meet these preconditions that would have access to the knowledge.

Factors influencing IK data elicitation

The frequency distributions, as presented in Table 2, show themes that are more representative of the opinions of herbal practitioners in south-western Nigeria. The theme of interest under this section is the theme "Knowledge sharing opinion". Under the theme, "openness", "Familirity" and "Compensation" are the sub-themes considered. The sub-theme openness has a frequency value of '20' (100%), which means that all the participants are open towards knowledge sharing. They support this disposition with a saying that goes thus: "ko si eni to n juba a gbogun lo sorun" (meaning "nobody praises the person that dies with his or her knowledge of herbal practices"). In response to the questions: Are you open to sharing your knowledge about herbal medicine with researchers? If "yes", how open and what are the conditions involved? If "no" why?

a) A participant from Ekiti said:
"Ko si idi ti oye ki a ma ko eni to fe lati mo nipa ise isegun ibile. Sugbon, awon liana ati igbese kan wa tin won ni lati tele. Bi e ti se mo pe ise isegun ibile pe orisirisi ati wipe awon ise isegun kan wa ti ako le sadede fi ko eniyan. Lati ko eniyan ni awon ise isegun to dabi pe o le die, iru eni be a je eni ti eniyan ti se akiyesi e fun igba die ti o si ti dani loju pe ko le lo isegun naa ni ilokulo. Awon isegun kan wa fun iwosan ara, bee na ni awon kan wa fun didan agbara wo.

Awon ti mo daruko sekeji yi nilo ki a sora pelu won. A mpe iru won ni "paagun". Awon ni isegun to nilo a ogede, a si ma nfi iruwon paniyan tabi seni ni jamba. Asiri iru awon oogun wonyi kii se fi han lasan k i won ma baa sii lo. Iru won ni "Afeeri", "Egbe", "Kanako", "Ishuju". Awon oogun yii buru pupo. Ti iru awon oogun lile yii ba bo sowo awon ole, awon ara ilu ti rogo niyen. Idi niyi ti asiri oogun yi fi je ohun ti a nfi han awon eni ti amo dara dara, ti ko le lo oogun naa ni ilo kulo. Sugbon to ba je ti isegun fun aisan ara, ko si wahala ninu iyen. O tile je pe oni wahala pupo ni. Eni to fe ko isegun naa gbudo setan lati fi akoko sile ati lati nawo – nara."

Translation to English:

"There is no reason why one should deny anybody trying to learn traditional medicine (TM) from doing so. However, there are some procedures and guideline one need to follow. As you know, TM is very diverse and there are some types of TM one cannot teach just anybody. To teach delicate aspects of TM to anybody, such a person must have been observed over a period of time to be sure the person will not mismanage the knowledge. There are TM that are only meant for physical ailment treatment, but there are some that are much more potent and needs to be handled more delicately, these type of medicine we call them "Paagun" (i.e. fetish that can harm). They are TM that involves incantations and can be used to kill people. The secret of some of these TM cannot be shown just to anybody so as to avert misuse of such knowledge. "Afeeri", "Egbe", "Kanako", "Ishuju", these are very dangerous TM as well. If this kind knowledge falls into the hand of wrong people like armed robbers, the community is in trouble. That is why the secret is only revealed to only well known people who cannot misuse the knowledge. But if it has to do with physical ailment treatment, there is little or no problem with it. It is just that it is laborious. The person that wants to acquire

the knowledge must be ready to spend time, energy and money."

b) A participant from Ondo State said:

"Fifi inu han mi fun awon oni iwadi ijinle nipa tewe-tegbo duro lori bi won ti lagbara to lati sanwo fun imo ti won fe gba. Idi nipe imo ise isegun ti mo ba fi fun won awon naa a fi powo ni. Ki n to le fi idi-oogun sile, ani lati jo pohun po lori iye owo ti won o fun mi."

Tanslation to English:

"My openess to researchers who are interested in collecting information about my knowledge of herbal practices is dependent on the ability of the researcher to pay for the information. This is because I know that whatever information I give to them will be used to make money. Before I can release my knowledge, we must agree in term of the monetary benefits that come to me."

c) A participant from Osun State said:

"Mo le fi imo han enikeni niwon igba ti eni naa ba je eni mimo ti mo si mo wipe mo le ri ere je lara irufe eni bee."

Translation to English:

"I can share knowledge with anybody provided the person is known and I am sure I can benefit from such a person."

d) A participant from Lagos State said:

"A maa nfi inu han nipa pinpin imo wa pelu awon elomiran, nitope owe kan so wipe ko si eni to n juba a gbogun lo sorun. Bee si nip e emi naa o mon ohun gbogbo. Ojo kan naa awa ti maa nilo imon elomiran,

> maa le ri imon naa gba. Sugbon, ti enikeni ti kii se omo egbe onisegun ba fe imo isegun latodo wa, irufe eni be ni lati setan lati sanwo fun imon naa."
>
> "We are open to sharing knowledge with other people because there is a proverb that says nobody praises the person that dies with his herbal medicine knowledge. Likewise, I don't know everything. I will need knowledge also someday from another person and the person will be able to teach me. However, if somebody who is not a member of those practising herbal medicine (HM) wants to get knowledge of HM from us, such a person will have to pay for the knowledge."

e) Another participant from Lagos State said:
"Ibi to nlo yen, o da bi oro awon agba to so pe a ki nfi ohun ta ba fowora tore lofe."

Translation to English:
"Where you are going, it is like the words of the elder that you don't give out for free what you purchase with money."

They believe herbal medicine knowledge is a communal property among the knowledge holders and should be readily shared among themselves. They also believe that nobody can fully acquire all the knowledge of herbal practices. Thus, it is when a holder shares his/her own knowledge that he/she could have access to the knowledge of others. They believe strongly in knowledge sharing, particularly among fellow practitioners. However, the frequency value '17' for the sub-theme "compensation" shows that despite their open disposition to knowledge sharing, a great majority (85%) have a precondition of monetary compensation before knowledge could be shared. Some participants claim they pay money to acquire some herbal knowledge, which they called "idi ogun", and it is required of them to collect money from the recipient of the knowledge before the herbal solution could be efficacious for the person. Some also said that their time is what is being paid for when they demanded for money. Others claimed that the enquirers will likely make money with whatever knowledge shared with them, thus they also need to

make some money from the enquirers. All in all, every response points to the fact that there is no secrecy in medicinal herbal practices as opposed to the metaphysical aspect of traditional medicine. The mere willingness on the part of the herbal knowledge holders to share their knowledge is an indication of 'no secrecy' in their herbal practice. The following are the statements of participants across the six states that give credence to the 'no secrecy' stance concerning herbal medicine:

a) A participant from Ekiti State said:

"... Sugbon to ba je ti isegun fun aisan ara, ko si wahala ninu iyen (sise afihan re). O tile je pe oni wahala pupo ni. Eni to fe ko isegun naa gbudo setan lati fi akoko sile ati lati nawo – nara."
Translation to English:
"... But if it has to do with physical ailment treatment, there is little or no problem with it. It is just that it is laborious. The person that wants to acquire the knowledge must be ready to spend time and energy."

b) A participant from Ondo State said:

"Fifi inu han mi fun awon oni iwadi ijinle nipa tewe-tegbo duro lori bi won ti lagbara to lati sanwo fun imo ti won fe gba."

Tanslation to English:

"My openess to researchers who are interested in collecting information about my knowledge of herbs is dependent on the ability of the researcher to pay for the information."

c) A participant from Osun State said:

"Mo le fi imo han enikeni niwon igba ti eni naa ba je eni mimo ti mo si mo wipe mo le ri ere je lara irufe eni bee."
Translation to English:

"I can share knowledge with anybody provided the person is known and I am sure I can benefit from such a person."

d) A participant from Lagos State said:

"A maa nfi inu han nipa pinpin imo wa pelu awon elomiran, nitoripe owe kan so wipe ko si eni to n juba a gbogun lo sorun."

Translation to English:

"We are open to sharing knowledge with other people because there is a proverb that says nobody praises the person that dies with his herbal medicine knowledge."

e) A participant from Oyo State said:

"Mo le pin imon mi pelu awon oniwadi ijinle laifi ikan bo kan ninu nitori eleyii yoo ran ise isegun lowo lopolopo."

Translation to English:

"I can share my knowledge with researchers openly because it will help the practice of herbal medicine."

f) A participant from Ogun state said:

"A le fi han tokantokan, sugbon oogun ti eniyan o ba fi owo se, ko le mon atilo e."

Translation to English:

"We can reveal it whole heartedly, but an herbal practice that is not acquired with money one may never know how to use it."

As one participant said, "if secrecy is in herbal practices, nobody will be training people in herbal practices". Likewise, the theme "Familiarity" which has the frequency value '14' (70%) shows that the knowledge holder familiarity with the investigator has almost the same importance with monetary compensation as a precondition for sharing knowledge. Most participants claimed that they can only share their

knowledge with somebody they know or somebody well recommended to them. For example:

a) A participant from Ekiti State said:

"...Lati ko eniyan ni awon ise isegun to dabi pe o le die, iru eni be a je eni ti eniyan ti se akiyesi e fun igba die ti o si ti dani loju pe ko le lo isegun naa ni ilokulo..."

Translation to English:

"...To teach delicate aspects of TM to anybody, such a person must have been observed over a period of time to be sure the person will not mismanage the knowledge..."

b) A participant from Osun State said:

"Mo le fi imo han enikeni niwon igba ti eni naa ba je eni mimo ti mo si mo wipe mo le ri ere je lara irufe eni bee."

Translation to English:

"I can share knowledge with anybody provided the person is known and I am sure I can benefit from such a person."

c) A participant from Oyo State said:

"A le pin imon wa nipa tewe-tegbo, sugbon o budo je eni mimon, eni ti o ni yi pada lati fi awon imo oogun ti a fi fun se ipalara fun wa."

Translation to English:

"We can be open to share our herbal knowledge, but it must be somebody who is known, who cannot turn around to afflict us with the knowledge given to him."

This is important because they believe that integrity and honesty are basic requirements for herbal practices. Thus, anybody that would be entrusted with herbal knowledge should come approved or recommended.

As a participant in Lagos said, "ti enikeni ba fe ko ise isegun nipa tewe-tegbo, eni naa gbudo je eni to nife si ise naa tikara re, osi gbudo ni eni ti yoo se oniduro fun, ti yoo le so nipa iwa re." ("... if anybody want to learn herbal medicine, the person must be personally interested in the practice, he must have a guarantor who will vouch for his person and recommend him"). The spate of fraudulent practices in herbal medicine practice has made this imperative. A would be recipient of herbal knowledge must come certified of honesty and integrity. Laziness and impatience are other major salient issues that portend danger for the practice of herbal medicine. These have resulted in half-baked herbal medicine practitioners whose practices are potential threats to human life. That is why guarantors are required before an apprentice can start learning the art of herbal practice. This has to be someone who can attest to their possession of requisite character qualities for herbal practice knowledge acquisition. Although, there are other minor factors which can serve as preconditions for knowledge sharing (Table 2), familiarity and compensation seem to cut across most of the participants interviewed. These are the major factors that would determine openness or lack of it of the IK holder.

The adoption of grounded theory in this study implies that no particular theory guided the study. Rather, a set of processes of data elicitation and analysis were employed to yield a theoretical result. Thus, this discussion will be primarily based on the interaction of categories and themes that emerged from these finding. According to the findings as summarised in Table 2, the results relevant to the participants interviewed at Oshogbo, Osun State show some patterns in the categories "Nature of practice" and "Opinion on Knowledge sharing". Although, both respondents are male, of Islam religion and source their knowledge from inheritance, their stance with regard to "compensation" differs markedly. Participant 1, who practises a commercial herbal medicine, is of the opinion that monetary compensation is a requisite for knowledge sharing. However, participant 2, a non-commercial herbal practitioner, saw no need for monetary compensation before knowledge can be transferred.

Similarly, the results relevant to the participants interviewed in Ekiti show that everyone that requires monetary compensation practises commercial herbal medicine. Of the four participants interviewed in Ekiti, only one participant practises a non-commercial herbal medicine. It also emerged that it is only this non-commercial herbal practitioner that see no need for monetary compensation as a requisite for knowledge sharing. It

appears that the nature of practice affects opinion on compensation as a requisite for knowledge sharing. In Ondo state, as presented in the Table, 3 participants were interviewed and all the participants require compensation before knowledge can be shared. However, one of the participants practises non-commercial herbal medicine. This is a contradiction to the pattern that was observed in the case of Osun and Ekiti. The pattern that nature of practice influences disposition to compensation seems not valid for the case in Ondo State.

In the case of Oyo State, as shown in Table 2, four participants were interviewed. All the participants practise commercial herbal medicine and all of them also require compensation before knowledge can be shared. As for Ogun State, the Table shows that three of the participants are commercial herbal practitioners, while the remaining one is a non-commercial herbal practitioner. The commercial practitioners require compensation for knowledge sharing, which fall into the pattern that has been observed in the previous tables. One non-commercial practitioner is also observed to follow the non requirement for compensation pattern. The results from Lagos State (Table 2) shows that the three participants interviewed were commercial herbal medicine practitioners. All the practitioners require compensation for knowledge sharing, thus satisfying the pattern that commercial practitioners do require compensation for knowledge sharing.

Another pattern observed, which cut across the six states, is the fact that all participants that engaged in any formal training as source of knowledge do require compensation. In the same vein, it is also observed that all the participants that are not disposed to compensation for knowledge sharing inherited their knowledge one way or another.

The Description of the intervening factors

As shown in the findings, two major themes emerged under the category of respondents' knowledge sharing opinion as factors that determine the openness or otherwise of herbal knowledge holder about their knowledge. These themes are familiarity and compensation. They constitute the intervening factors between herbal knowledge investigator and herbal knowledge holder. The success of an herbal knowledge inquiry is heavily premised on the satisfaction of these themes. The themes are thus described as follow.

(i) Familiarity: This is one of the intervening factors to a successful elicitation of the knowledge of a knowledge holder. Familiarity can be considered as a function of language, culture and relationship with respect to the investigator and a function of purpose of investigation and relationship with respect to the knowledge holder. The degree of familiarity both on the part of the investigator and the knowledge holder determines, to a larger extent, the degree of success of the inquisition. Each of the components of familiarity is here given further explanation.

(a) **Language:** Ability of the investigator to use the language of the knowledge holder, though important, of more interest is the ability to skilfully use the language in such a manner that will not leave the knowledge holder in doubt of what the investigator expects from him (Werner and Schoepfle, 1987a & b). The familiarity and skill with which words are used to convey intentions will affect the quality of knowledge elicited in the course of interview. Thus, an investigator needs to be well versed in the nuances of the language of the knowledge holder.

(b) **Culture:** Understanding the way of life of knowledge holder is very important to the success of eliciting knowledge from them. Being able to interact with the knowledge holders at the same cultural levels is a quick way to opening their minds. For instance, entering an Ifa shrine with shoes on shows non-familiarity with the culture of the Ifa priest, and such can put off the priest and thereby hinder successful interaction.

(c) **Relationship:** This is a very important component of familiarity. The closer the relationship of the investigator to the knowledge holder, the better the success of the inquiry. From the findings, most herbalists prefer to transfer their knowledge to their own children. Likewise, more than 90% of the herbalists interviewed claimed they acquire their knowledge from their parents. Relationship could be personal as in the case of children, family members, friends, or neighbours; relationship could also be surrogate when the investigator is not the one in direct relationship with the knowledge holder, but was recommended by persons well known to the herbalist. This kind of relationship is called surrogate relationship. This is why

herbalists require a known person as guarantor before an apprentice is accepted to start training.

(d) **Purpose:** Essential to the interaction between the investigator and the knowledge holders is a clear understanding of the purpose of the inquiry. Knowledge holders require an understanding of the purpose of the investigation to determine whether they should open up or they should not. They believe the judgement lies with them. They are to determine if what the person wants to use the knowledge for is acceptable or not. Once they are clear on the issue of purpose and proper relationship has been established, they can go ahead to release the knowledge if the relationship is close enough for them to overlook compensation.

(ii) Compensation: More than 80% of the participants indicated that they require compensation before they can share knowledge. This compensation could be monetary or knowledge exchange. They will more likely collect monetary compensation from a relatively distant relationship, knowledge exchange from member of the same trade and probably no compensation from family members. Several reasons were given for requiring compensation. Some claimed they acquired the knowledge with money and as such could not give it free of charge. Some others claimed that the nature of their herbal knowledge requires that one pays for the knowledge, otherwise, the herbal solution might lose its efficacy. Yet, other claimed they would like to be paid for their time and effort. Issue of compensation seemed to be a very important factor in the successful elicitation of knowledge from indigenous knowledge holders. From observations, those who gave reliable data were those who had got assurance of monetary compensation before the commencement of the interview. Those who could not get such assurance gave short responses, lacking details.

Conclusions

This study set out to identify factors influencing IK data elicitation from herbal medicinal practitioners in South-western Nigeria to the end that a solution might be proffered to the problems facing IK data elicitation. The findings present possible ways out of the problems and the summary of the findings are as follows:

a) 75% of the population interviewed engage in herbal practice for commercial purpose.
b) 100% of the population interviewed expressed an open disposition to knowledge sharing.
c) 70% of the population interviewed require 'familiarity' with investigator before knowledge is shared.
d) 85% of the population interviewed require agreement on 'compensation' with the investigator before knowledge is shared.

The findings reveal two major intervening factors to successful IK data elicitation, one of which available literature attests to. These are familiarity and compensation. Hart (1986) and Werner and Schoepfle (1987a & b) discussed extensively on some of the sub-components in familiarity such as language, which details means and manner of communication, and culture of the knowledge holder. These two intervening factors, whose satisfaction or lack of it determines the openness or lack of it of knowledge holders about their knowledge, are important to the future of research efforts in IK, particularly in the area of documentation of IK. Of more importance and relevance to researchers is compensation. It has been established that most IK holders would not be totally open about their knowledge except there is an agreement on compensation between them and the investigator. Thus, if efforts at documenting indigenous knowledge will ever be successful, researchers need to be ready to go to the field with surrogate researchers who are familiar with the knowledge holders. Researchers should also be ready to compensate knowledge holders for their efforts.

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