



# Turning mirrors into windows: Knowledge transfer among indigenous healers in Limpopo province of South Africa



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© 2018. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License. **Background:** Knowledge transfer is an unavoidable process when it comes to indigenous knowledge especially in Africa, the continent known for its oral tradition. Such knowledge is in danger of being obliterated as a result of a number of factors, including lack of interest from younger generations and low life expectancy whereby knowledgeable people die before transferring it to the next generation as it is mostly not documented.

**Objectives:** This qualitative study utilised hermeneutic phenomenology guided by the organisational knowledge conversion theory to investigate the transfer of indigenous knowledge by traditional healers in the Limpopo province of South Africa.

**Method:** The study utilised a snowball sampling technique to determine the population. Data collected through interviews with traditional healers were augmented with observations done on two healers who were in the middle of their training when this study was conducted, as well as an analysis of records held by some healers.

**Results:** The findings suggest that knowledge of traditional healing is believed to be transferred to the chosen ones through dreams and visions. However, this knowledge seems to be transferred through mentorship and apprenticeship, as well as interactions with other healers.

**Conclusion:** It is concluded that transferring knowledge of traditional healing goes beyond just transference; it is embedded as a belief system in many African communities. An in-depth study on the development of a framework to integrate indigenous knowledge of traditional healers into mainstream health system is recommended.

# Introduction and background to the study

The title of the article was inspired by a quote from Sydney J. Harris (1917–1986) that 'the main purpose of learning is to turn mirrors into windows'. This implies that when one looks into a mirror, the only thing they see is their reflection and the area around them, but when they look through a window, the view is endless. Learning enables us to look beyond ourselves and to see more clearly. Learning is usually done through knowledge transfer and knowledge sharing. In this study, knowledge transfer among indigenous healers in the Limpopo province of South Africa is investigated.

Knowledge transfer by definition is the process by which knowledge is transmitted to, and absorbed by, a user (Garavelli, Gorgoglione & Scozzi 2002). Faust (2007) explains knowledge transfer as a component of knowledge management that involves the transmission of explicit, implicit and tacit knowledge from a person or organisation to one or several people. Kamal, Manjit and Gurvinder (2007) are of the view that the value of knowledge increases when it is shared. The review of literature further suggests that the transfer of indigenous knowledge hinges on the effective transfer of tacit knowledge (Nonaka 1994; Polanyi 1966; Szulanski, Ringov & Jensen 2016). The proper handling of tacit knowledge lies at the very heart of the creation and transfer of knowledge in organisations (Szulanski et al. 2016). When it comes to the transfer of indigenous knowledge which is known to be oral in nature, Adekannbi, Olatokun and Ajiferuke (2014) highlight that elders are considered to be the legitimate custodians of this knowledge which is handed down to them by their ancestors, and they are in turn expected to pass it on to others for this knowledge to survive.

According to Szulanski et al. (2016), tacit knowledge may be transferred through observations, imitation and practice. For tacit knowledge to be transferred through observation, there should be

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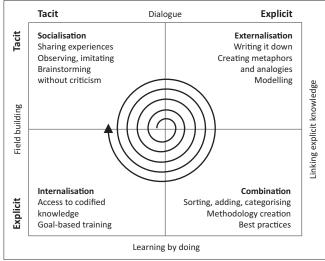
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interaction between source and recipient, communication should be very personal, the recipient should observe the knowledge in use and the recipient should keep practising. Although all transfers of knowledge require some degree of effort and may experience some difficulty, some transfers experience significantly more difficulties than others, whereas some of the transfer-related problems will be diagnosed easily and resolved routinely (Szulanski et al. 2016).

Studies by Ijumba and Barron (2005), Denis (2006) as well as Truter (2007) suggest that the majority of the population in Africa consults traditional healers and depend on indigenous medical knowledge for survival, yet there is limited understanding of how this knowledge is transferred among healers. This is because knowledge of traditional healing survived over the years without being documented. Furthermore, knowledge of traditional healers is rarely integrated in the mainstream government health system (Maluleka 2017; Mathibela et al. 2015). As a result, understanding how this knowledge has been transferred among healers is of great importance. This study utilised the organisational knowledge conversion theory to investigate knowledge transfer among traditional healers in Limpopo province of South Africa.

### Theoretical framework

This study was guided by the theory of organisational knowledge conversion, which explains the interaction processes of tacit and explicit knowledge. This theory identifies the four modes of interaction that may facilitate knowledge management, including knowledge transfer among healers. The organisational knowledge conversion theory (see Figure 1), with its four constructs reflected below and abbreviated as the SECI (Socialisation, Externalisation, Combination, Internalisation) model was originally proposed by Nonaka (1991) and further developed by Nonaka and Takeuchi (1995). The four modes of knowledge conversion theory are the following:



Source: Nonaka, I. & Takeuchi, H., 1995, The knowledge-creating company, Oxford University Press. New York

**FIGURE 1:** Socialisation, Externalisation, Combination, Internalisation model.

- socialisation (from tacit knowledge to tacit knowledge);
- externalisation (from tacit knowledge to explicit knowledge);
- combination (from explicit knowledge to explicit knowledge);
- internalisation (from explicit knowledge to tacit knowledge).

Even though this theory was created in the Japanese context, it was found to be relevant to the South African context, especially in the process of managing traditional medical knowledge. This is because the four modes of knowledge management explain how more knowledge is transferred through conversion between tacit and explicit knowledge.

# Contextual setting

The study focused on the Sepedi-, Tsonga- and Vendaspeaking healers in the Limpopo province of South Africa. The province is divided into five regions, namely Waterberg, Capricorn, Vhembe, Mopani and Sekhukhune (see Figure 2). Truter (2007) notes that traditional healers are known by different names in the different South African cultures (e.g. amagqira in Xhosa, ngaka in Northern Sotho, selaoli in Southern Sotho and mungome in Venda and Tsonga). This study focused on traditional healers in the Limpopo province. These healers mainly spoke Sepedi, Tsonga and Venda, as these are the three main languages spoken in Limpopo.

# Statement of the problem

The World Health Organization (WHO 1998) and Poorna, Mymoon and Hariharan (2014) reported that an estimated 70% - 80% of the population in developing countries are dependent on traditional medicines for their primary healthcare needs. Despite these high numbers, knowledge of traditional healing is in danger of being lost entirely. By its nature, knowledge of traditional healing is known to be transferred from one generation to the next through oral tradition (Mokgobi 2014; Ngulube 2002). The death of a senior citizen may have devastating implications for a community that depends on the expertise of that particular citizen; more so if the knowledge was not imparted in any way (Maluleka & Ngulube 2017). The danger that has always been associated with indigenous knowledge is that it might be obliterated as a result of a number of factors such as it not being documented or the death of a senior or the most experienced person before such knowledge could be passed on to the next generations. Mathibela et al. (2015) supported by Maluleka and Ngulube (2017) suggest that traditional healing is usually the first choice for primary healthcare by rural communities in developing countries, yet there is little understanding of how this knowledge is transferred among healers. As highlighted in the background to this study, elders were considered to be the legitimate custodians of indigenous knowledge. Despite facing extinction, knowledge of traditional healing survived over hundreds of years without being a formally recorded source of information. This knowledge, however, passed the test of time and



Source: Limpopo Tourism Agency, 2017, Limpopo regions, viewed 24 February 2017, from http://www.golimpopo.com/regions FIGURE 2: Regions of Limpopo.

survived over generations despite the threads that it faced over the years.

# Objectives of the study

This study aims to investigate how knowledge of traditional healing in the Limpopo province is transferred among healers. The specific objectives were to:

- determine the methodology employed by traditional healers in transferring knowledge;
- identify the process of transferring knowledge by traditional healers.

# Research methodology

This study adopted a qualitative research approach and further employed hermeneutic phenomenology as a method because lived experiences of traditional healers who share similar experiences in their practice of traditional healing were investigated. Data were collected through interviews, observations as well as an analysis of notes, records and other forms of documents that were held by healers.

Snowball sampling technique was employed because of the nature of the population being investigated. South Africa had approximately 200 000 traditional healers practising in 1995 and around 300 000 in 2005 (Denis 2006; Truter 2007). It is, however, very difficult to give the exact figure when it comes to practising healers because many are not registered with the Traditional Health Practitioners Council of South Africa,

which is tasked with registering persons who engage in traditional health practice in South Africa (Parliament of South Africa 2005). For qualitative studies, sample representation is not of great importance because the results are not generalised. Data were collected until saturation was reached. To ensure authenticity, the investigators went back to some of the healers and shared with them what was captured and allowed them to make further comments. This allowed the investigators to have continuous discussions with healers and that gave the investigator some leverage to interpret what the traditional healers have contributed. In total, 27 participants were interviewed, of the 27, 19 were women and only 8 were men. Of the 27 participants, 2 were trainees, 6 were new graduates and 19 were experienced healers.

Interviews were recorded using a voice recorder, supplemented by the notes taken by research assistants. The investigator listened to the recorded tapes from the interviews and transcribed them from tape to paper. The notes taken by the research assistants during interviews were compared to the data obtained from tapes and necessary adjustments were made where necessary. The data were organised according to each theme emanating from the objectives of the study.

### **Ethical considerations**

Ethical clearance was obtained from the University of South Africa. Furthermore, participants were given consent forms to read and sign if they agreed to participate in the study. Each interview participant was informed about the person who was conducting the research, why the respondents were invited to participate, that participation is voluntary and are free to withdraw anytime and that anonymity and confidentiality will be maintained at all times. Even though participants had no problem with being mentioned in the study, the investigators decided to keep all responses anonymous assigning alphabet letters to participants, for example, Participant A.

For data collected through observation, the senior healer and the trainees agreed in granting us permission. The investigator informed them that anonymity and confidentiality will be ensured and they were free to withdraw at any time. That was in line with the University of South Africa's policy on research ethics (2007) which explains that all studies must be conducted ethically at all times and the rights and interests of all participants must be protected. All pictures taken during this study were shown to the healers and they agreed that they may be included in the document; however, the investigator protected their identities by severing off their faces from the pictures where necessary.

# **Findings**

This section presents the findings of the study based on the objectives of the study, which are understanding how knowledge of traditional healing is transferred and the methodologies employed to transfer this knowledge. In cases where participants gave similar answers, only one answer was captured to avoid recording the same answer multiple times.

# Knowledge transfer among traditional healers

The transfer of knowledge of traditional healing is an unavoidable process, especially in Africa because of its oral tradition. In an effort to understand how knowledge is transferred among traditional healers in Limpopo, traditional healers were asked to share their experiences on how knowledge transfer generally occurs among them. The following responses were given (see Table 1).

When trying to understand how tacit knowledge gets to be externalised by knowledge holders, senior healers were asked how they transferred their skills and experiences to their trainees. The key answers recorded are listed in Table 2.

It was observed that the senior healers, as the knowledge holders, were the ones giving instructions, guidance and leading the way during knowledge sharing and transfer. In addition to that, former students who were graduated by the same senior healer constantly visited the senior healer when there are events where a number of duties have to be performed. During those visits, former students spent a lot of time with the trainees sharing experiences, what they (former students) enjoyed and what they found hard to do. During those meetings, a lot was shared between the experienced healers and the trainees.

**TABLE 1:** How knowledge transfer generally occurs among indigenous healers in the Limpopo province.

Participant	Response
Participant A	'For me it all comes down to respect. Trainees must respect their master and follow all the instructions they are given at all times for them to get this knowledge.'
Participant B	'I repeat the same actions many times for my students to clearly master what I show them, when it comes to herbs I can show them the same herb and its uses up to five times.'
Participant C	'Trainees who are slow will require that you show them the same thing many times.'
Participant D	'There are different kinds of healers; there are those who have the power to heal, those who have the power to train others and that group that shines when it comes to dancing during celebrations. I am now an old man. I do not do training because it is very demanding; you have to be hands on and show your students everything they need to know practically, that requires time and effort.'
Participant E	'Students get most of what they know from their ancestors who gave them the power to heal. Those who depend only on the herbs that were shown to them during training will never grow. Students must become independent and use their maximum powers to heal the people. Traditional healing is a different and unique practice; every healer must have his or her own special herbs as shown by his or her ancestors.'
Participant F	'When it comes to learning about herbs, we go to the wild and are shown different trees and told to collect leaves in others, roots in some and the barks in others. After collecting all the herbs and after all the grinding is done we will spend the next few months learning what each herb does, which ones to mix for some particular illnesses. From that moment, you can classify your herbs according to categories that will work for you.'

**TABLE 2:** How experienced healers transferred their skills and experiences to their trainees.

Participant	Response
Participant A	'This is like in a normal school; if you don't listen you will never know anything. Your attitude will determine how much you end up knowing.'
Participant B	'It mostly depends on the student and how dedicated they are. But with me we learn how to read the bones every day and involve my trainees in everything I do. I show my trainees how different herbs are prepared and for what purpose, then when there are patients I just tell them to prepare a particular herb. I also teach them how to deal with patients and how to respect their craft.'
Participant C	'Some trainees are lazy and others show little interest, but those who are willing to learn will forever ask questions and take interest in what I do. In this job you need to look and learn, everything is practical; I show them everything and make sure they are involved.'
Participant D	'We can all have the same herbs but use them differently because your ancestors will guide you on how and what to add to a particular herb to address certain issues. How I do things is just a guideline and trainees will have to adopt their own way of doing things as they continue in this journey.'
Participant E	'As masters I only show them what I know from there it will all be up to their ancestors to come through for them, that is why as a healer you may have students who are more powerful than you because of their ancestors. What their ancestors tell and show them I don't have the capacity to know or control.'

The other form of knowledge transfer that was occurring was between the inexperienced healers and the experienced healers who have been in the business for many years. During those events, the experienced healers work closely with the inexperienced healers showing them how certain functions are performed so that they may be able to do them independently when they start training their own students.

To supplement the data obtained during observation, the investigator asked the participants during interviews to explain the type of relationship they have with other healers. This was done in an effort to determine if there is some level of working together which may promote knowledge sharing. The responses given are listed in Table 3.

**TABLE 3:** Knowledge sharing among healers.

Participant	Response
Participant A	'Working with other healers is very important.'
Participant B	'If I come across a patient with the sickness I don't know I always consult people I work with to discuss the patient and also advice each other on which herbs to try.'
Participant C	'We share information on herbs and healing related matters.'
Participant D	'When I get a client which I feel I don't understand the type of illness I always consults with other healers mostly seniors in our network. I also refer clients that I am struggling to help to other healers who might have dealt with the illness before.'
Participant E	'Healers work together all the time, if I have a client and urgently need a herb that I do not have, I will simply call someone nearby to bring me the herb and help the patients because as traditional healers we don't send patients away.'
Participant F	'There are specific herbs that you can only find in other parts of the world, we work together with healers from as far as Zimbabwe and Mozambique because they have herbs we don't have and we also have herbs that only grow in our area and we always share!
Participant G	'We always meet as healers at the chief's palace to discuss and share matters of traditional healing and to share some knowledge.'
Participant H	'Healers use different names to sometimes call the same herb, so when I come across a name I don't know I call people in my network to figure out the name which is common to me for that particular herb.'
Participant I	'When one of the healers I work with comes across a bit of information in relation to what we do, we sit down and share the information to improve on what we already do.'

# Methodologies employed to transfer knowledge

The second objective of this study was to identify the methodologies employed by traditional healers to transfer knowledge. During interviews, participants were asked to share the type of methodologies they employed to transfer knowledge and the following were some of the main responses recorded:

- Trainees are mostly advised to observe what the experienced healers are doing and learn from them.
- We mostly tell our trainees what to do and make sure they repeat until they can do things on their own.
- I tell my students what to do and observe as they do to see how well they do.
- My master just showed me the way, but I am the one who
  walks it through the help of the spirits, they tell me
  everything I need to do.

The investigator also wanted to know how common was knowledge sharing among healers because knowledge sharing goes hand in hand with knowledge transfer. The responses recorded are shown in Table 4.

In an effort to determine which methods were used by senior and experienced healers to transfer their knowledge of traditional healing with the new inexperienced healers, some of the key responses were recorded and are listed in Table 5.

# **Discussions**

Szulanski et al. (2016) are of the view that for tacit knowledge to be transferred there should be interaction between source and recipient, at a social level and communication should be very personal. Traditional healers share personal experiences among themselves during socialisation.

**TABLE 4:** Knowledge sharing among healers.

Participant	Response
Participant A	'Healers share information all the time.'
Participant B	'When I come across an herb in a different area which is used for something I always come back to share with those I work closely with especially my trainees and those who were graduated by me.'
Participant C	'You can never learn everything at the same time; some of these things come with experience and from working with other healers.'
Participant D	'Your learning never ends; there is always something to learn from others. As a result knowledge sharing is very common.'
Participant E	'Healers always share information and ideas about different illnesses and how they handled them but there are healers who are secretive who don't want to show others what they using bu mostly they are the ones who are left behind because as a heale there is no way you can know all herbs. As healers as we are together in the wild when one shares what a particular herb is used for, the next will mention uses of another herb we come across and by the end of the day we would have discussed a lot of herbs and some of which you never knew.'
Participant F	'Working with others is very good and will always be to your advantage because you will know of many things you didn't know, but those who are secretive are likely to know fewer herbs.'
Participant G	'If you are not collaborating with others you may walk past different herbs not knowing what they are used for because you might never have heard about them before.'
Participant H	'We sometimes have a traditional healer's conference organised by our leaders and in that conference we share a lot of information. At the conference there are always herbalists from faraway places selling different types of herbs. They mostly explain what each herb is and what each herb is used for which adds on the knowledge we have.'
Participant I	'Some senior healers are just jealous especially of us young healers and never share anything with us, I mostly rely on my ancestors for guidance.'
Participant J	'Knowledge sharing is very common but we mainly get our knowledge from the ancestors through dreams.'
Participant K	'Knowledge sharing is very common among healers but we mostly share what is common and what is out there, if my ancestors were to come to me and instruct me what to do for a particular patient, that will never be shared with anyone because it is a special message for a particular patient. I may maybe inform my mentor and ask for guidance but only when necessary.'
Participant L	'We work together with other healers; this is a joint venture in as much as we all have our personal things we mostly work together as Africans we invite each other when we have events like graduating of students, during those events we share a lot of information.'
Participant M	'I share with people I work with everything I know, I don't mind telling them which herbs I use to treat particular illnesses because in this craft it all comes down to how you use the information and what your spirits are doing for you.'
Participant N	'I show my students all the herbs I use and the ones I have used before, they also get help from the spirits. It's up to them to take it to forward.'

TABLE 5: Methods used by experienced healers to share their experience

Participant	Response
Participant A	'We share the same way we got the information from those who trained us.'
Participant B	'I show them herbs then send them to another area to find the same herbs on their own.'
Participant C	'They should do everything on their own, I just give guidance.'
Participant D	'My ancestors were mostly guiding me on things to which may come in a form of a dream, I will tell my dreams to my mentor and she will give me interpretations telling me what it means and what I should do. My students get guidance from their ancestors; my job is to help them carry out those duties.'
Participant E	'I was told to do things in a particular way and will look at how my mentor did things and try to imitate what he did. The same principle works for my students and I won't change that. I will stick to it.'
Participant F	'The ancestors decide when and what you should know. They mostly give directions through dreams.'
Participant G	'There are different levels during training. The first step is the calling of the ancestors where you take herbs and keep others under your pillow when you sleep. As soon as the ancestors shows their presence, you will start having dreams where you are shown different herbs, when you now ready to heal people the ancestors will show you which herbs to mix to heal a particular illness.'

During those interactions, experienced healers patiently share their experiences with trainees. The experienced healers are sometimes required to repeat the same thing several times to ensure that the trainees learn the correct thing. Dedicated trainees get to get the most out of their masters while those with the wrong attitude end up knowing very little.

The findings further revealed that during training trainees constantly get to learn from healers who were graduated by their master. This knowledge transfer process occurs during informal discussions when these graduates visit their master. The transfer of knowledge also occurs between experienced healers every time there is a meeting or a gathering of some sort. During these interactions, tacit knowledge is mostly transferred because such discussions are personal. Traditional healers in Limpopo can safeguard this knowledge and ensure the survival of the knowledge for future generations by sharing their tacit knowledge through initiation and mentoring.

Methodologies employed to share knowledge included the exchanging of notes, labelling herbs and using different recipes for different concoctions. Those methods encouraged collaboration among healers where different illnesses were discussed or ideas on how to deal with different issues related to traditional healing were shared. Furthermore, herbs that healers use are mostly found from trees that grow in different areas. Some of these trees can only be found in specific parts of the country. To that effect, healers have developed their own networks where there is some level of working together. There are herbs that are known to grow only in mountainous areas and healers who live in areas without mountains will get help from those in those areas and return the favour by sharing knowledge of herbs that grow in their area. This allows healers to combine the knowledge they gained from their colleagues to their knowledge base to form new knowledge. Traditional healers who dealt with a particular problem may exchange ideas and share their experiences and in this way combine their ideas and experiences to create the best solutions for particular problems.

The findings further suggest that the methodologies mostly employed by trainees to acquire knowledge included observations, practically doing things, imitations, following orders from the ancestors and constantly shadowing their masters. This supports the argument made earlier by Szulanski et al. (2016) that tacit knowledge may be transferred through observations, imitation and practice. Even though the drumming and dancing occur almost every day, trainees spend most of their time collecting and grinding herbs, learning how to read the bones and also participating in the practical healing of patients until they fully acquire the necessary knowledge. In addition to the methodologies discussed, healers mentioned continuous learning and the contribution of their ancestors as key methodologies employed to transfer knowledge.

# **Conclusion**

Arthur Danto (1924–2013) is quoted when saying 'when I transfer my knowledge I teach, but when I transfer my belief, I indoctrinate'. Transferring knowledge of traditional healing goes beyond just transferring knowledge, it is also a belief in many African communities. The interactions between healers make it possible for knowledge to be transferred from one individual to the other. In addition to the tacit knowledge that is transferred during training, the study established that collaboration which encourages knowledge transfer is very common among healers.

Healers share and transfer knowledge informally and spontaneously during externalisation. During externalisation, healer's tacit knowledge is externalised, made ready and it becomes easier to share and acquire knowledge. The results suggest that experienced healers share what resides in their minds and at the same time convert their tacit knowledge into explicit knowledge, which is easier to share and acquire.

The findings suggest that the methodologies mostly employed by trainees to acquire knowledge included observations, practically doing things, imitations, following orders from the ancestors and constantly shadowing their masters. The study further established that knowledge transfer happens during collaborations, formal and informal discussions, meetings between healers and when there are events like the trainee's examinations as well as during gatherings. A broader study on the development of a framework to integrate indigenous knowledge of traditional healers into mainstream health system is recommended.

# Acknowledgements

## **Competing interests**

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

### **Authors' contributions**

J.R.M. did the entire study with M.N. as supervisor.

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