The Use of Indigenous Knowledge and Perceptions of Malaria for Improved Control and Elimination of Malaria in the Community of Dan, Limpopo Province, South Africa

By

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DECLARATION

I declare that the thesis hereby submitted to the University of Limpopo, for the degree of Doctor of Philosophy in Anthropology has not previously been submitted by me for a degree at this or any other university: that it is my work in design and in execution, and that all material contained herein has been duly acknowledged,

Mr. MK Malatji 07-10-2022

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DEDICATION

This thesis is especially dedicated to my dearest father, Mr. Makokori Johannes Malatji, if anything, the love and support you have towards education is amazing.

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PREFACE

This study is an African-centred exploratory investigation of the use of African Indigenous Knowledge (AIK) and perceptions of malaria by the African community of Dan Village in Limpopo Province to control and eliminate this pernicious disease. More often than not approaches and programmes designed to control and eliminate malaria are based in Caucasian racist colonial ideology which defines African people as primitive and barbaric; a people who have not managed to generate scientific knowledge to effectively control and eliminate malaria. The racist apartheid government in South Africa, for instance, passed legislation which banned indigenous health practices which they regarded as pre-logical primitive superstition and witchcraft. This racist legislation unfortunately contributed, inter alia, to the development of a deeply entrenched Afrophobia-deep dislike and fear of Africans and their cultural practices in the psyches of South Africans-even among Blacks, particularly those "educated" in Caucasian racist colonial institutions. This fear continues to ferment in the present despite the efforts of the current liberal democratic dispensation to recognise the critical role indigenous health IK can play in improving health delivery in South Africa. Hence developers of malaria control and alimination programmes continue to shun AIK and rely mainly on Caucasian generated medical knowledge to manage health and disease.

This exploratory study seeks to begin to generate foundational African-centred knowledge which researchers can hopefully build on in conducting thorough and detailed descriptive and explanatory investigations. Chapter One which is essentially introductory unpacks the epistemologic location of the study which is framed by the Afrocentric/African-centred paradigm constructed by Molefi Kete Asante, Mambo Ama Mazama, Wade Nobles, and Daudi Ajani ya Azibo to mention a few African deep thinkers. Chapter Two reviews ant critiques relevant literature. In Chapter Three the Afrocentric research methodology deployed in the investigation is unpacked. Chapter Four presents the data generated by purposively selected research participants. In Chapter Five the focus is turns to the analysis and interpretation of the data. The final chapter, Chapter Six, identifies the findings of the study, provides a general conclusion, identifies the principles and coordinates required to construct a tentative African centred model for the control and elimination of malaria, and recommendations which might be of interest to steakholders in this area.

ABSTRACT

This exploratory study is based on the philosophically and metatheoretically sound epistemic position that to avoid category mistakes and transubstantive error in comprehending African phenomena, it is abserlutely necessary to jettison Caucasian paradigms and locate epistemologically in African-centredness. African people have been the "most written about" and yet the "least known and understood" of all the world's people due to category mistakes and transubstantive error which arise from the hegemonic practice and tendency of valuating and evaluating African phenomena with Caucasian paragigms whose essence is anti-African. To avoid such mistakes and error, the Afrocentric paradigm was deployed to make sense of the pivotal necessity and need of utilising AIK and perceptions in the effective control and elimination of malaria in Dan Village which is racially and culturally African. To this end ten (10) African diviners and herbalists and fifteen (15) elderly African women and men were carefully and purposively selected to participate in the exploratory study. An Afrocentric research methodology based on the African spiritual principles of Maat and Nommo was deployed to collect, analyse and interpret data. Deploying the Thematic Content Analysis (TCA) tradition framed epistemologically by the Afrocentric paradigm rooted in the deep structureof African culture, significant African-centred themes were distilled from the data. A significant overarching theme which subsumed all other themes was that the effective control and elimination of malaria can only be realised if programmes for such control and elimination are rooted in and derive from the irrefragable African worldview and survival thrust. This African worldview, it must be noted, derives from African biogenetics and phylogeny. The upshot of this position, which itself is based on epistemologic centering in the reality structure of African people, is that a model for the control and elimination of the pernicious disease of malaria in Dan Village must derive from the deep thought and practice of the *Ba-Pedi* and *Va-Tsonga* ethnic groups. It is on this basis that the basic principles required for the construction of a tentative African-centred model for the control and elimination of malaria were identified and elaborated. This exploratory study thus sought to effect a dicisive break with Eurocentric discourses on the control and elimination of malaria.

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LIST OF ABBREVIATIONS

WHO:	World Health Organization
IKS:	Inidenous Knowledge Systems
LIHRA:	Limpopo Heritage resourse agency
SAHRA:	South African Heritage Resource Authority
DOH:	Department of Health
MAlEra:	Malaria Eadication
IRS:	Indoors Residual Spraying
SANDH:	Saouth African National Department of Health
SP:	Sulphadixine Pyrimethamine
DDT:	Diclorodiphenyltrichloroethane
RBM:	Roll Back Malaria
HMM:	Home Management of Malaria
TM:	Traditional Medicine
CAM:	Complementary and Alternative Medicine
AIK:	African Indigenous Knowledge
ORM:	Own Race Maintanance
ORP:	Own Race Reference
ORB:	Own Race Bias
KEMRI:	Kenya Medical Research Institute

CHAPTER 1

USE OF INDIGENOUS KNOWLEDGE AND PERCEPTIONS ON MALARIA: FORMULATION OF THE PROBLEM AND ORIENTATION OF THE STUDY

1.1. INTRODUCTION

This chapter is primarily introductory. The chapter has, as its core focus, the formulation of the research problem and the orientation of the investigation. A clear and unambiguous formulation of the research problem requires that the problem itself be properly contextualized and hence the inclusion in the chapter of an explanation of the background to the study as well as the motivation for the study. The orientation of this study deals specifically with the purpose, that is, the aim and objectives of the study, as well as the paradigm and theory which frame the entire investigation and research process. The explication of the paradigm and theory seeks to provide a clear epistemic identity to the research process and researcher. This is done to provide clarity on the issue about the positioning of the researcher and research in the field and enterprise of knowledge production as this relates to the effective control and elimination of malaria in Dan village.

As will be explained below, this study is framed by the Afrocentric paradigm and theory. Related issues focused on in the chapter are tied up with the scope, significance, and limitations of the study. It is also important to identify the research tradition deployed in the study. This study is exploratory and not descriptive and explanatory. Exploratory studies are usually conducted on problems that have not received thorough scientific investigation by scholars in the field. In an exploratory study, as Pellerin (2012) an expert Afrocentric methodologist observes, a researcher conducts preliminary data collection and accurately constructs broad notions and features about the disposition of the problem under investigation. The researcher neither provides a detailed portrayal of the key characteristic features of the phenomenon under investigation as in a descriptive study nor provides causal relations among the variables embedded in the problem as in an explanatory study. The goal is to tease out cultural notions and ideas embedded in the uses of indigenous knowledge and perceptions of malaria for the improved control and elimination of this pernicious disease in the African community of Dan in Limpopo Province, South Africa.

1.2. BACKGROUND

Malaria is a global health problem mostly prevalent on the African continent (World Health Organization [WHO], 2012). It is a blood parasite transmitted to people from the bite of an anopheles mosquito that kills at least one million people in sub-Saharan Africa every year, leading to human suffering and economic losses (Vinay & Nyato, 2014). Early detection, containment, and prevention of malaria constitute one of the four technical elements of the global malaria control strategy. Failure to immediately detect and control epidemics may result in unacceptably high morbidity and mortality rates (Macherera & Chimbari, 2016). The World Health Organization Global Malaria Programme is responsible for malaria control and elimination through preventive practices such as insecticide nets and indoor spraying (WHO, 2012).

Malaria remains one of the diseases responsible for the greatest cause of morbidity and mortality worldwide (Breman, et al., 2004). In 2011, 3.3 billion people were estimated to be at risk of malarial illnesses. Moreover, 80 percent of malaria cases and 90 percent of mortality were estimated to occur in the African region (WHO, 2012). A high mortality and morbidity rate of malaria is basically in the high transmission regions of sub-Saharan Africa. Most of the incidents are amongst children under the age of five years and pregnant women in endemic areas (Amek, et al., 2012; WHO, 2009). In this instance, malaria remains the world's most important tropical parasitic disease, and one of the major public health challenges in sub-Saharan Africa (Abellana, et al., 2008; Roca-Felter, et al., 2009; Rowe, et al., 2006).

Over ten years, the total number of reported malaria cases decreased markedly from 64 622 in 2000 to 8 066 in 2010 in South Africa. The largest decrease was noted in KZN, with this province reporting the lowest number of cases in 2010. Although case numbers in Limpopo declined from 9 487 in 2000 to 4 215 in 2010, this province has become the largest contributor to malaria incidence of the three endemic provinces. Similar to malaria case numbers, malaria-related mortality decreased during the period, from 459 deaths in 2000 to 87 deaths in 2010 in South Africa. Again, the province associated with the greatest decline in malaria-associated deaths was KZN, while the highest number of deaths in 2010 was reported in Limpopo (Maharaj et al., 2013). The current study explores indigenous knowledge and perceptions of malaria, its etiology, and indigenous curative and preventive practices in Dan's rural community in Mopani District Municipality of Limpopo Province. The study also examines the potential to improve control and elimination of malaria. This type of inquiry could help

consider cultural medical practices in the development of malaria control and elimination programs as suggested by (Maslove et al., 2009).

The South African Malaria Programme has made significant strides in decreasing the number of malaria cases in the last 10 years. Malaria cases decreased by 85 percent in 2010 compared to theyear 2000 (9669 vs 64622 cases). Malaria deaths also decreased by 80 percent (453 to 87) for the same reporting period. In 2007, the African Union and the Southern Africa Development Community identified South Africa as one of the candidate countries for malaria elimination- defined as zero local malaria transmission in a specific geographical area (WHO 2007). A Malaria Programme Review was carried out in 2009 which indicated that most malaria districts were at the pre-elimination stage (<5 cases /1000 population at risk), hence the National Department of Health was re-orientating its program from one of control to elimination. From the finding of the review, it was noted that only two districts were in the control phase of the WHO's (2007) malaria elimination continuum (>5 malaria cases /1000 population at risk) and two were in pre-elimination whilst the rest are in the prevention of re-introduction phase of malaria.

The National Department of Health subsequently drafted a Malaria Elimination Strategy for South Africa. The goal of the strategic plan was to reach malaria elimination by 2018 in South Africa and to prevent the reintroduction of malaria into the country. This plan was not successful. Based on the strategic plan several guidelines were required to be drafted to ensure that the strategic plan could be optimally implemented. This Surveillance guideline is one among several guidelines that have been identified for development by the National Department of Health, to guide provincial and district malaria teams on all aspects of malaria surveillance. 'Surveillance' is defined as the continuous collection, collation, analysis, and interpretation of data on a systematic and ongoing basis, together with the feedback and timely dissemination ofinformation to those who need it for action (WHO, 2011).

A Monitoring and Evaluation Plan was developed to track indicators for the Malaria EliminationStrategy for South Africa. The plan has a specific objective to track the surveillance activities towards elimination. The plan includes output indicators for surveillance relating to the notification of all malaria cases in both public and private health facilities within 24 hours. An indicator for investigating each case and reporting on it within 72 hours to the provincial

and national level, stratification of malaria according to case classification, and an indicator to track the malaria foci identified. The surveillance guidelines are intended to guide both public and private sectors on all aspects for implementation of surveillance as an intervention. The guidelines will also identify the human resource and financial needs, and the operational issues associated with ensuring optimal surveillance. These guidelines were informed by the National Malaria Elimination Strategy Monitoring and Evaluation (M&E) Guidelines, the Epidemiological Approach to Malaria (WHO 2011), A Research for Malaria Eradication (malERA, 2011), and the PHC-reengineering document for the National Department of Health,2011.

Dohan-Moss et al., (2018) observe that South Africa's malaria-affected areas include the low altitude border regions of Limpopo, Mpumalanga, and KwaZulu-Natal Provinces. These regions typically experience active malaria transmission, especially during the peak malaria season that spans the summer months of November to April. Malaria incidence in 2018 (18 638 cases) decreased by approximately half of that recorded in 2017 (+/- 31 000 cases) but was still substantially higher than that of 2016 (9 478 cases). Limpopo and Mpumalanga provinces were most affected, especially the Vhembe, Mopani (Limpopo) and Ehlanzeni (Mpumalanga) districts. Each of South Africa's malaria-endemic provinces has developed well-coordinated malaria control operations including routine vector control which is primarily based on the application of indoor residual insecticide spraying (IRS) and, to a lesser extent, larval source management. Although IRS has proven efficacy spanning many decades, residual malaria transmission continues and is likely caused by outdoor feeding and resting. Anopheles vector mosquitoes that are unaffected by indoor applications of insecticide. In addition, populations of the major malaria vector species, Anopheles funestus and An. arabiensis, have developed resistance to insecticides, especially in the eastern part of Limpopo Province. The pyrethroid resistance phenotype in An. arabiensis in this region is however of low intensity currently and is not considered to be operationally significant at this stage, unlike the pyrethroid-carbamate resistance profile in An. funestus which is of high intensity is highly significant epidemiologically and was at least partly causative of the malaria epidemic experienced in South Africa during the period 1996 to 2000 (SANDH, 2000; Brooke et al., 2013, Burke et al., 2017, Dondalo et al., 2017; Venter et al., 2017).

1.3. RESEARCH PROBLEM

The problem under investigation in this research is centred on the failure to incorporate Indigenous Knowledge (IK) and perceptions in programmes designed to control and eliminate malaria in Dan village. Control and elimination of malaria in South Africa require effective strategies to reduce local malaria transmission to zero. Granado et al., (2011) attest that these strategies should involve the local community knowledge systems about malaria. Societal values, indigenous knowledge, perceptions, and practices are the main attributes of community perceptions and practices of malaria prevention and treatment. These factors involve the local terminology, symptoms, and beliefs about the cause of malaria, as well as prevention and cure. These types of perceptions influence biomedical health care practices as they provide pathways on symptom recognition, perceived disease seriousness, utilization of services, and eventual health outcomes (Granado et al., 2011).

A wide range of vector control and intervention programmes have been put in place all over the world, including South Africa (Blumberg & Frean, 2007; Mabaso, et al., 2004). However, malaria persists in being a global disease burden, more especially in sub-Saharan Africa (Maharaj, 2008). This includes South Africa and the study location, the Dan village in particular. The intervention programmess put in place fail to address the problem of malaria because they do not speak to the norms, values, perceptions, and indigenous knowledge of the local communities (Mabaso, et al., 2004). Resistance to insecticides and anti-malaria drugs are the main concern of the global community for malaria elimination efforts. These aspects do not accommodate the IK and perceptions of the local communities. This makes malaria a major threat to public health and economic development of countries mainly in sub-Saharan Africa (Griffin, et al., 2010). Local communities tend to adopt health practices better when such practices resonate with their indigenous knowledge and perceptions and have a high efficacy method of tackling malaria in local African communities. It is important to include the world-view and indigenous practices of the local people in plans to control and eliminate malaria.

South Africa is at the southern fringe of sub-Saharan African countries which continue to experience malaria transmission. Approximately 95 percent of malaria infections found in South Africa result from a parasite *Plasmodium falciparum*, with the Anopheles mosquito being a major malaria vector (South African National Department of Health, 2007). More or less than 10 percent of the population resides in malaria-endemic areas and is at risk of contracting the disease (Moonasar, et al., 2012). There is no partial immunity in persons living

within malaria areas of South Africa due to low-intensity seasonal malaria transmission (Department of Health, 2011). In South Africa malaria is considered seasonal and unstable (South African National Department of Health, 2007), with transmission limited to warm and rainy summer months from September to May (Gerritsen, et al., 2008). According to Blumberg and Frean (2007), malaria is endemic in the low-altitude areas of South Africa along the border shared with Mozambique and Zimbabwe whereby transmission is mainly taking place in three provinces namely: Limpopo, Mpumalanga, and KwaZulu-Natal. Over the past years, malaria incidence in South Africa has radically decreased (Maharaj, 2008) verifying that malaria control has been successful in reducing malaria. However, it remains a serious public health challenge in the northern and eastern parts of the country (Jupp, 2005). According to a study by Gerritsen, et al. (2008), over the seasons between 1998 and 2007 there was a dramatic decrease in malaria incidence rate in Limpopo Province. Subsequently, in 2010 Limpopo Province had the highest malaria transmission in South Africa which is greater than or equal to 1 case per 1 000 population, that is 4% of the total population of the country (World Health Organisation, 2011).

1.4. MOTIVATION FOR THE STUDY

The Dan community falls within Mopani District Municipality in Limpopo Province. The area experiences many malaria cases with resultant death-related cases. It is also a community that still practices indigenous mechanisms in understanding, preventing, and curing illnesses. The researcher observes that IKS is under threat of being distorted or even getting extinct over time if the information is not documented, managed, and preserved for future use by African centred scholars rooted in indigenous African traditions.

The researcher was born and raised in the Mohlaba-Cross Village, a village which lies very close to Dan village. Growing up, the researcher has seen the problem of malaria disturb the peace and health of the indigenous people of the Dan community. The researcher has witnessed a lot of outsiders who came from colonial academies to attempt to resolve the challenge of malaria in the community. The researcher would in many instances hear the indigenous community members of the Dan community complain about the perceptions imposed on them by the Eurocentric colonial academies. The researcher took note of the complaints raised by the indigenous members of the community. Most of the complaints were around how the Eurocentric methods of understanding and treating diseases imposed on them by the outsiders

who usually came to their place did not resonate with their belief systems as African. As a result of not incorporating the IK and perceptions of indigenous communities, the country has been fighting a losing battle in the community to solve the problem of malaria. This has motivated the researcher to conduct a study that seeks to address the problem.

The human and economic costs associated with the declining quality of life, consultations, treatment, hospitalization, and other events related to malaria are enormous and often lead to low productivity and loss of income (WHO, 2012). Children aged less than 5 years and pregnant women are the people most vulnerable to being infected and eventually dying because of malaria. In certain cases, such the same group is at the time found to be suffering serious consequences of the disease, especially in sections where transmission is intense (WHO, 2005). Small children are the most vulnerable because they have not acquired immunity to the disease (Doolan et al., 2009). While maternal susceptibility to malaria infection during pregnancy may be related to the psychological immunosuppression that occurs during gestation (Manendez, 1995).

Malaria is not just a personal problem to the researcher and community members that stay in the community of Dan village only. This is a global crisis, as a result, it is very important that the world joins hands in the fight to eliminate and eradicate malaria. The researcher understands that any initiative that has the potential to assist in the fight of either preventing and/or treating malaria should be given the space and respect it deserves. As such, indigenous knowledge and perceptions towards the prevention and treatment of malaria deserve a lot of respect and as a result, it becomes very important to document such knowledge. Human beings usually trust programs and processes which resonate with their worldview. AIK is rooted in the worldview of the *Ba-Pedi* and *Vha-Tsonga*. AIK thus resonates with the cultural realities of the African people of Dan village.

The researcher was also interested in looking into other methods (western medicine) of preventing and treating malaria against the use of indigenous medicine in the treatment of malaria. The WHO (2012), says that the Roll Back Malaria (RBM) program was initiated in 1998 by the WHO to make available several key evidence-based and cost-effective malaria control interventions that include home management of malaria (HMM) with emphasis on early and appropriate treatment of malaria particularly children under five years old (WHO, 2001;

Attaran et al., 2004). The RBM target through HMM was to ensure at least 60 percent of mothers and children under five years have access to information on HMM and affordable antimalarial drugs for effective malaria treatment by 2005 and 2010 respectively to achieve the goal to halve malaria morbidity and mortality worldwide by 2010 and further reduce the burden by 50 percent in 2015 (Nabarro & Tyler 1998; TDRNews, 1999). This is expected to contribute to attaining the Millenium Development Goal (MDG) of halting malaria and beginning to reverse the incidence of malaria and other major diseases by the target date of 2015 (United Nations, 2000; Teklehaimanot et al., 2005)

Documenting indigenous knowledge and perceptions of communities such as the community of Dan village is not limited to assisting in the fight against malaria only. Such documentation also speaks to the preservation and management of IK of a particular group of people as cultural heritage. This serves as motivation in that it is very important to document IK to avoid knowledge erosion anytime in the future. The researcher also wants to document the different types of indigenous medicinal plants used in the prevention and treatment of malaria. Such information would include the preparation and administering of the indigenous plant-derived medicine.

Despite numerous studies carried out to bring out a rational scientific plan about the use of plants by the local indigenous communities (Adjanojoun et al., 1989; Agassounon-Djikpo-Tchibozo et al., 2001; Hermans et al., 2004; Bero et al., 2009; Allabi et al., 2011), there is still a need to carry out investigations to have a database as complete as possible on medical plants used for malaria management. This is part of the reason the current study was conducted.

Adeneye et al., (2013) also suggest that most early treatments for fever and uncomplicated malaria occur through self-treatment at home with antimalarial drugs bought from patent medicine sellers. Treatment is rarely sought at health facilities and is most often inappropriate or delayed (Okeke et al 2006; Groodman et al., 2007). Adeneye also argues that about less than 15 percent of the malaria episodes that are treated at home are treated correctly (Muller et al., 2003; Guyatt & Snow. 2004; Koefoed et al., 2004). Most fevers in children are treated with simple fever drugs, such as paracetamol and aspirin, but not with an antimalarial drugs. Even when antimalarials are purchased, they are commonly administered in inappropriate doses (WHO, 2004). Based on this information, part of the reason the researcher selected the study

was to try and document the reasons why local communities will prefer indigenous medicine over the use of antimalarial medication.

1.5.OPERATIONAL DEFINITION OF CONCEPTS

1.5.1 Knowledge and Perception of Malaria

Knowledge of the disease caused by malaria bites (Prince & Nosten, 2014). In the current study, this will refer to the use of IK and perceptions of diviners, herbalists and elderly men and women in the Dan community.

1.5.2 Malaria Prevention

Ways, systems, and methods of combating malaria (WHO, 2010). These will refer to the indigenous knowledge held by the diviners, herbalists and elderly men and women in the Dan community to prevent malaria.

1.5.3 Malaria Control

The reduction of the malaria burden to a level at which it is no longer a public health problem (WHO, 2008). For the current study, malaria control will refer to the indigenous practices used by the members of the Dan community that could be used to reduce the malaria burden.

1.5.4 Malaria Elimination

Interrupting local mosquito-borne malaria transmission in a defined geographical area (WHO, 2008). For the current study, malaria elimination will refer to the indigenous practices used by the members of the Dan community that could be used to eliminate malaria.

1.5.5 Knowledge of Malaria

The ability of a person to have the correct understanding of malaria in terms of the causative agent, mode of transmission, signs and symptoms, treatment, and prevention.

1.5.6 Incidence

The rate of newly diagnosed cases of a disease

1.5.7 Prevalence

The actual number of cases alive with the disease during a period.

1.5.8 Attitudes towards Malaria

Beliefs on susceptibility, seriousness, and threat of malaria

1.5.9 Practice of Malaria Prevention

Routine activities and actions of individuals or groups for prevention of malaria. These include the use of insecticide-treated mosquitoes using insecticides to spray and control/clear mosquito breeding places.

1.5.10 Community

Refers to a group of people living in a particular area and have shared in a particular area and having shared values, cultural patterns, and social problems.

1.5.11 Malaria Management

Refers to the whole process of recognition of the causes, symptoms, and transmission of malaria and seeking health care for its treatment promptly.

1.5.12 AIKS

The culturally-spiritually based knowledge that African people have developed in negotiating in all areas of people activity (Azibo, 2018). AIK is rooted in the African reality structure (2014)

1.5.13 Cultural centeredness

Cultural centredness involves the deployment or use of one's cultural knowledge, values and ideals etc. in negotiating life (Mazama, 2003). In this study, this will refer to the deployment by diviners, herbalists and elderly people in Dan community of their own IK to resolve the problems of health.

1.5.14 Psychological Africanity

Psychological Africanity refers to the self-consciousness of an African as African (Azibo, 2018), and in particular, an orientation which prioritises the sustention, defense, development and preservation of African life and culture. In this study, this will refer to self-consciousness as African of the diviners, herbalists and elderly men and women in the Dan village.

1.5.15 Psychological Misorientation/Cultural Dislocation

Psychological misorientation involves a condition of an African who operates in the world using a cognitive structure composed of non-African believes, values and ideals (Azibo, 2018). In this study it involves the use of non-African knowledge systems as the main means for solving African probems

1.5.16 Worldview

Worldview entails the deep structure of culture and refers to the way a people make sense of their surroundings, and make sense of life and the cosmos (Azibo, 2015). In this study, this refers to the deep structure of the cultures of the *Ba-Pedi* and *Va-Tsonga* diviners, herbalists and elderly men and wome in the community of Dan

1.6 PURPOSE OF STUDY

1.6.1 Aim

The study aims to explore the use of indigenous knowledge and perceptions of malaria for the improved control and elimination of malaria in the community of Dan, Limpopo Province, South Africa.

1.6.2 Objectives

- To identify the broad cultural notions embedded in the views of deviners, herbalists and elders related to the control and elimination of malaria
- To examine the knowledge of the devinineers, herbalists and elderly people related to the symptoms of malaria.
- To examine their knowledge of the indigenous herbs used in the treatment and control of malaria
- To develop a tentative model that can be used for the control and elimination of malaria in the community of Dan.

1.6 The Afrocentric Paradigm and Theory

The community of Dan village, which constitutes the population of the current scientific investigation is African. The community is rooted in the historical, cultural traditions and memories which are overwhelmingly African. This is not to deny the negative impact of White-European supremacist domination on their cultural values and ideals. In fact, such negative impact and the cultural confusion which sometimes confronts the community in its attempts to resolve community problems is a key issue of the investigation.

However, despite the negative racist colonial depredations of the people of Dan village, who define themselves as *Ba-Pedi* and *Vha-Tsonga,* the people continue to subscribe to the deep structure of African cultural realities. This is what structures their fundamental thought and behavior in the process of negotiating life. This fact is of pivotal and critical importance in

selecting a paradigm and theory to frame this study (Asante, 1990, 2007; Ani, 1994; Mazama, 2003; Modupe, 2003).

Keto (1994), a prominent Afrocentric South African scholar, has observed, insightfully, that studies of African issues have been vitiated mainly by the deployment of theories constructed out of alien European cultures which differ fundamentally, in terms of their ontologies, cosmologies, axiologies and epistemologies, from African culture. To overcome this problem, he proposes the construction of centered pluriversal theories which recognize the existence of different cultural realities in the world. This is, in fact, what Molefe Kete Asante and Ama Mazama, to mention only two prominent Afrocentric scholars, have done (Asante, 1980, 1987, 1990, 2007; Mazama, 2003). Asante constructed the theory of Afrocentricity as early as the 1980s.

Mazama (2003) correctly observes that Afrocentricity has developed into a distinct paradigm grounded in the civilizations developed by African people on the continent as well as the African diaspora. The key elements in Afrocentricity are African cultural and epistemological centeredness. This intellectual enterprise posits that to grasp, fully, African thought, behavior, and development it is necessary to grasp African ontology (definition of reality), African cosmology (structure of the universe), and African axiology (value system). These Afrocentric scholars insist that Africans are self-willed actors and agents in control of their minds, bodies, and souls (Asante, 1980, 1990). Africans are not and must not be treated as peripheral dwellers in some else's historical-cultural experiences.

To come to grips with African realities and survival thrust in the past and present, it is absolutely necessary to deploy concepts, ideals and values Africans themselves have developed since the dawn of civilization in Kemet (Ancient Egypt) Nubia, and Meroe. This is the key element of centeredness or centrism in Afrocentricity. In the insightful words of Diop (1974, 1991), Asante (1990) and Carruthers (1999) the classical civilizations of the Nile Valley (Nubia, Meroe, Kemet) are to Africans as Greco-Roman civilization is to Europe. There is cultural unity in Africa created by the dynamic dissemination of Nile Valley concepts. The Nile Valley civilizational complex itself got its inspiration for cultural and intellectual development

from inner Africa (Diop, 1974, 1991; Carruthers, 1999). Africans everywhere share a common cultural and civilizational system at the deeper level as evidenced by their ontology, cosmology, axiology, and epistemology.

Ontologically, reality for Africans appears as a spiritual force that pervades the universe. African people define their being as essentially spiritual (Carruthers, 1984). Parenthetically, the *Bantu* which is the group to which the community of Dan community belongs, define themselves as the people of the spirit. It may be noted that while Africans place a premium on spirituality in their definition of their reality they do not ignore or neglect the material dimension of life and living. However, it is the spiritual dimension that exercises the most potent force in their thought and behavior. The African cosmos appears as an interdependent and interconnected edifice. Africans live in an essentially communal universe. Axiologically, Africans put a premium on positive interpersonal relations rather than on the acquisition of material objects. To be human is to base one's life on the need to establish positive interpersonal relations in the community. Epistemologically or what may be referred to as the grounds for knowledge or how we know what we know, African people deploy the mode of participation or immersion into that which they seek to know. African people do not objectify the universe or seek distancing from that which they want to know. Affect or emotional involvement constitutes an important source of information and knowledge (Ani, 1994; Asante, 1990)

The Afrocentric paradigm and its groundedness in the African reality just described certainly provides an appropriate conceptual framework to guide this exploratory study. However, since the study also explores the critical issue of African personality and personhood or the nature of African human nature as these constructs unpack the response and orientation of African people as they confront the challenges and patterns of survival and the preservation of African culture and life in the areas of health and disease, it is necessary to enrich the theoretical framework by taking on board insight from the latest developments in the theorization of the African personality by African-centred scholar-activists such as Nobles (1986) and Azibo (2014; 2018). The literature on African personality is vast and cannot be meaningfully covered in the study. Aspects of this literature will however be referred to where the African personality construct is deployed to make sense of the unique responses of the *Ba-Pedi* and *Vha-Tsonga* of Dan village to the challenges posed by malaria.

Azibo's (2014; 2015; 2018) work on the metatheory of the African personality is very critical for this study. On the whole Azibo (2018) accepts the early working definition of the African Psychology Institute (1982) which suggested that the African personality was a biogenetically grounded psychological Africanity, a collective and holistic phenomenon comprised of a spiritual core which provided the dynamic synthesis between the I-Me-We nexus of selfhood. This biogenetic groundedness is critical because it is endowed and imbued with natural biogenetic mechanisms and equipment which provide the African self with a collective orientation. The spiritual core of the African personality is the animating principle responsible for the motivational functioning of the African person. The collective/ communal orientation of the African person has a biogenetic basis. When an African person, at the level of self-consciousness, orienteers in a manner that sustains, defends, and develops African culture that person is functioning appropriately according to his/her nature. The person is said to have African consciousness or psychological Africanity. However, when the African, due to the imposition of anti-African ideas and values begins to orienteer in a manner that negates African life and culture, that African is said to be afflicted with the disorder/disease of psychological misorientation. This concept is similar to Asante's (2003) concept of decentredness or cultural dislocation. These are conditions of Africans whose cultures have been damaged through the imposition of the Caucasian worldview. In all cases, sanity and appropriate behavior will only prevail when the African relocates to the African cultural center (Asante, 2003; Mazama, 2003) or regains psychological Africanity or African self-consciousness (Azibo, 2018).

It is, inter alia, grounding in the ontological, cosmological, axiological, and epistemological orientations just described that Afrocentric theory has been constructed and developed. Afrocentricity is a theory about African development as African. The ultimate objective of the theory is the psychic and cultural liberation of African people. This, in short, is the framework most appropriate for research on problems confronted by the Dan community composed mainly of the *Ba-Pedi* and *Vha-Tsonga* who are culturally African.

1.7 Significance of the study

The current study is important in that firstly, it will contribute positively to the available literature on the documentation of indigenous knowledge and perceptions of an African community, as these relate to the prevention and treatment of malaria diseases from an

Afrocentric perspective. There is a lot of indigenous knowledge and perceptions which local communities have, most of which are not documented and are therefore being transmitted from generation to generation through word of mouth. This knowledge, therefore, is at risk of extinction or degratation in future unless there is proper and formal documentation. The current study documents the Indigenous knowledge of malaria prevention and treatment for improved control and elimination in the African community of Dan village. The documentation of such important knowledge in African communities is very important and it guarantees preservation for ease of acces to future generations of African people.

Most of the knowledge recorded in African local communities is reported from a Eurocentric point of view and as a result, in most cases, distort the knowledge of such communities. This study is also significant in that; it records such crucial knowledge of African people of the Dan Village from the worldview perspective of the communities studied. The results presented in the study will assist the researcher to develop a tentative model that will be presented to the Dan village and other communities facing the same challenge of malaria disease outbreaks. As an exploratory study, it provides an African-centred groundwork on which future descriptive and explanatory research may be based.

1.8 SCOPE AND LIMITATIONS OF THE STUDY

Given the research aim and objectives delineated above, the scope of the study entailed two aspects: (i) the identification, documentation of the indigenous knowledge and perceptions of the Dan Community members regarding malaria (both for preventive and treatment), and (ii) indigenous plants used to treat malaria in humans.

The study, however, had a set of limitations inherent in the topic investigated:

b) Not all the diviners, herbalists and elderly community members of the Dan community were free and forthcoming with information, particularly about the use of indigenous methods of the treatment and curing of malaria.

d) There was also the issue of the outbreak of the Coronavirus (COVID-19) during the study and most of the respondents were no longer comfortable with face-to-face meet-ups as the national government was advising people to stay at home and create social distance among people.

e) Qualitative data collection requires that the researcher engage closely with the units of analysis. The execution of the approach proved to be difficult because of COVID-19 stricture and protocols mandated the National Department of Health.

1.9 Chapterisation

This thesis consists of a collection of chapters on several diverse, but inter-related aspects of indigenous knowledge of community members of the Dan Community in the Mopani District Municipality of the Limpopo Province. In all chapters, an introductory section is followed up with a comprehensive discussion of the uses of foens results. The thesis is presented in six chapters. **Chapter One** is introdustory. It focuses on the background of the study, formulation of the research problem, the purpose of the study, the theoretical framework, and definition of concepts, significance and limitations of the study. **Chapter Two** focuses on the review of relevant literature **Chapter Three** discribes the research methodology. **Chapter Four**. Presents the data collected in the investigation. **Chapter Five** analyses and interprets the data presented in the previous chapter. **Chapter Six** identifies the findings of the study, prodives a general conclusion and describes a tentative model which can be used in the control and elimination of malaria in Dan village.

1.10 Conclusion

This chapter was mainly introductory. At the core of this study was the formulation of the research problem and unpacking of the epistemic identity of the entire research process. Afrocentricity, articulated mainly by Molefi Kete Asante and Mambo Ama Mazama was deployed to guide the study. This perspective was enriched through the incorporation of insight derived from recent advances in theorisation of the African personality construct by scholar-activists such as Duadi Ajani ya Azibo. The entire research process was thus African-centred and Afrocentric.

CHAPTER 2
LITERATURE REVIEW: USE OF INDIGENOUS KNOWLEDGE AND PERCEPTIONS ON MALARIA FOR THE CONTROL AND ELIMINATION OF THE DISEASE

2.1 INTRODUCTION

Chapter one focused mainly on the formulation of the research problem and the epistemological identity of the research process and researcher. The problem was formulated as the failure of malaria control and elimination proggrames, in their conceptualisation and design, to incorporate African IK and perceptions on malaria. The epistemological identity of the researcher and the entire research process was characterised as grounded in the metatheory of Afrocentricity, articulated mainly by Asante (1980, 1987, 1990) and Mazama (2003), and enriched by recent advances in African personality theorisation by Azibo (1989, 2014, 2018). In this chapter, identified literature which focuses on the use of IK and perceptions on malaria for the control and elimination of the disease in particular and use of IK and perceptions on the management of health and disrease in general is reviewed and critiqued. The review is also conducted to identify gaps and other absences which this exploratory study, hopefully, can begin to fill. This review and critique, it must be emphasized, does not focus on Eurocentric/Caucasian knowledge and perceptions on malaria and the use of these in the control and elimination of malaria. However, due to the implied and not explicit element of comparison in the title of this study, a broad critical review of Eurocentric/Caucasian knowledges and approaches to AIK will also be provided.

2.2 INDIGENOUS KNOWLEDGE

2.2.1 Definitions

The concept "indigenous knowledge (IK)" has attracted a lot of definitions from a lot of scholars. Masango and Nyasse (2015) have adopted a definition from Amenu (2007) who argues that indigenous knowledge entails knowledge, rules, standards, skills, and mental sets that are held by local people in certain areas. For UNESCO (2009-2014) IK is referred to as the understandings, skills, and philosophies developed by societies with long histories of interaction with their natural surroundings. A similar definition was offered by Mapara (2009) who defines that indigenous systems as a body of knowledge, or bodies of knowledge of indigenous people of particular geographical areas that they have survived on for a very long

period, which are linked to the communities which originate them. Chirimuuta, et al. (2012), supports the definition of IK by Mapara and goes further to observe that inevitably these knowledge systems cover all spheres of life in the people concerned. This means that AIK refers to African ways of knowing which define Africa's worldview and reality structure,

Ellen and Harris (1996) cited by Tharakan (2015) state that indigenous knowledge (IK) and indigenous knowledge systems (IKS) refer to knowledge and knowledge systems that are unique to a given culture of society. IK and IKS are seen as separate and different from the European knowledge systems, which include knowledge generated from universities, research institutions, and private firms. International knowledge is knowledge created from modern scientific systems research and development, which are all part of the global scientific and technological enterprise of human civilization. This knowledge is acquired through formal education and book learning and advanced study, internships, training, and mentoring that essentially ensure that the extant avenues and processes for scientific knowledge creation, affirmation, and dissemination are maintained and continued (Tharakan, 2015)

For Makgopa and Frangton (2016), IKS is a broad concept varying from one society to another. He further explains that coming up with one size fits all is practically impossible. This is explained on the basis that coming up with a solid definition of IK is a difficult task as different scholars tend to have different views and perceptions about IKS as a whole. Domfeh (2007) holds that IKS refers to intricate knowledge systems acquired over generations by communities as they interact with the environment. This means that IKS encompasses spiritual relationships, relationships with the natural environment, use of natural environmental resources reflected within cultural and social values and laws. The recognition of IKS is, therefore, crucial for the economic and cultural empowerment of indigenous people in particular, and the world in general. IKS is human experiences, organized and ordered into accumulated knowledge to utilize in achieving the quality of life and to create a livable environment for both human and other forms of life. IKS is the local knowledge, the knowledge that is unique to a given culture or society (Makgopa, 2016).

IKS has several categories including agricultural, meteorological, ecological, governance, social welfare, peacebuilding, and conflict resolution, medicinal and pharmaceutical, legal and

jurisprudential, architecture, sculpture, textile manufacture, metallurgy, and food technology. There is a cultural context surrounding the practice of these knowledge systems, which include medicinal knowledge (pharmacology, obstetrics), food preservation and conservation, and agricultural practices including animal husbandry, farming, and irrigation to fisheries, metallurgy, and astronomy. IKS also encompasses spiritual relationships, relationships with the natural environment, use of natural environmental resources reflected within cultural and social values and laws. IKS is therefore crucial for the economic and cultural empowerment of indigenous people, and the world in general (Hoppers, 2004).

For Mapara (2009), indigenous knowledge systems refer to a body of knowledge or bodies of knowledge of the indigenous people of particular geographical areas that they have survived on for a very long period. These bodies of knowledge are linked directly to the community which originates them. These indigenous knowledge systems are the sum of facts that are known or learned from experience or acquired through observation and study handed down from generation to generation. These types of knowledge systems cover all spheres of life of the people concerned. Ngara (2007) attests that AIK is the African way of knowing which defines the African worldview and ways of knowing.

2.2.2 Historical Background and Context

Ngara, (2007) argues that IKS has stood stubborn to the destructive barrages of colonization. The European colonial adventure in Africa imposed foreign and alien knowledge systems on African communities. Ngara, further claims that this was important for the colonist to dislocate the African from self, that is, from its own culture, language, history, food, and institutions. This cultural dislocation found ostensible expression in the geographical reorganization done through renaming. The imperialists rode on a charade of smoke and mirrors and embarked on renaming the toponymical landscape as if the land did not have names before they came.

Rankoana et al. (2015), states that the use of indigenous knowledge and practices in health care was first recognized by the World Health Assembly in 1978 when it urged the member states to utilize traditional medical practices in primary health care. Lama (2000) cited by Rankoana et al. (2015) states that indigenous knowledge is recently regarded as an important commodity in global health development.

2.3 INDIGENOUS PRACTICES IN HEALTH

2.3.1 Indigenous Practices

The World Health Organisation in the Health for All Declarations (1978) highlighted the need to include local communities, their traditions, and practices in primary health care. The inclusion of local communities meant that their indigenous medical practices could be used to achieve primary health care goals because the indigenous system of health care and healing practices have had to meet the needs of local communities over many centuries and continue to do so (Lama 2000). Two major assertions were made about the potential use of traditional medicine in primary health care. Keleher (2004) observes that to make primary health care readily accessible and acceptable in the local communities, community participation would very important. Von Wolputte and Devisch (2002) reaffirm that community involvement could enable communities to deal with their health problems in the most suitable ways, and community leaders could make rational decisions concerning primary health care and ensure appropriate support for health projects (Rankoan et al. 2015).

Indigenous knowledge of health care rests on the application of traditional medicine to meet primary health care. Ethno-medical practices form the basis for indigenous health care systems. The practices are derived from the knowledge of the use of specific plants and animal materials (Saray 2001) for protective, preventive, and curative health care. Knowledge of indigenous plant-derived medicine is the oldest form of health care known to humans and the art of herbal healing is as ancient as human history. Traditional herbal medicine continued to play a significant role in the remedial, prevention, and protection of life-threatening diseases such as malaria, tuberculosis, and HIV/AIDS in developing countries, though no adequate scientific evidence has been documented about the safety, quality, and efficacy of the medicines (MRC 2008).

Du Toi (1998) and Marecik (2007) attest that indigenous knowledge of health care is not only accomplished through the administration of herbal medicine. Indigenous knowledge about the causes of disease is an important element that could be useful towards the achievement of primary health care needs. The knowledge provides varieties of factors responsible for disease and treatment that involves remedial, protective, and preventive care. Onu (1996) adds that at a community level, beliefs about the cause of a disease are intimately related to magic, science, and religion. In addition to the disease etiology, primary health care could be enhanced by

people's explanatory models of disease which formed from cultural symbols, experiences, and expectations associated with categories of disease (Patel 1995). The models reveal sickness labeling and cultural idioms to experience disease and decisions for treatment. In addition to these belief systems, the indigenous dietary systems proved to have health potential. Marecik (2007) and the World Bank (2004) ascertained that traditional vegetables and fruits provide an important daily nutrient intake concerning vitamins, calcium, iron, zinc, protein, carbohydrates, and beta-carotene.

2.3.2 Indigenous Knowledge and Health

Cross-cultural research has shown that perception of good and bad health, along with health threatsand problems are culturally constructed. Different ethnic groups and cultures recognize different illnesses, symptoms and causes and have developed different health-care systems and treatment strategies. According to Cohen and Armeagos (1984), Inhorn and Brown (1990) diseases also variy among cultures. Because of the small numbers of traditional and ancient foragers, mobility and relative isolation from other groups, our ancestors lacked most of the epidemic infectious diseases that affected agrarian and urban societies.

Africans have recognized that the air we breathe, the water we drink and the food we eat, are all swarming with millions of micro-organisms called germs but contended that if germs cause diseases in relation to their population, the whole human race together with the animal and vegetable kingdoms would have been exterminated long before now (Aja, 1999). In addition, Aja stated that since the germ theory has failed to account for some diseases, some of the factors that can cause diseases are sorcery, breach of taboos, spirit intrusion, diseased objects, ghosts of the dead and acts of the gods. In fact, the causes of diseases are due mainly to transgression of natural laws as expounded in traditional African metaphysics. These laws are constantly violated in ignorance and sometime deliberately. The African believes that there is inherent ontological harmony in the created universe and any attempt to upset the harmony, constitutes a diseased state. The attempt could be human or non-human, hence a disease could be physical or metaphysical. In traditional medicine, attempt is therefore made to look for both the physical and metaphysical causes of decease, hence the traditional healers have appealed to both scientific and metaphysical means in an attempt to achieve a comprehensive cure of any malady.

2.3.3 African Theories in Disease Causation

The kind and incidence of disease vary among societies and cultures interpret and treat illness differently. Standards for sick and healthy bodies are cultural constructions that vary in time and space (Martin 1992). Still, all societies have what Foster and Anderson (1978) called "disease-theory system" to identify, classify and explain illness. According to Foster and Anderson (1978), there are three basic theories about the causes of illness; personalistic, naturalistic and emotionalistic. Personalistic disease theories blame illness on agents (often malicious) such as sorcerers, witches, ghosts or ancestral spirits while the naturalistic disease theories explain illness in impersonal terms. One example is Western medicine or bio-medicine which aims to link illness to scientifically demonstrated agents that bear no personal malice toward their victims. Thus, Western medicine attributes illness to organisms (e.g. bacteria, viruses, fungi or parasites), accidents or toxic materials. Other naturalistic ethno-medical systems blame poor health on unbalanced body fluids. People believe their health suffers when they eat or drink hot or cold substances together or under inappropriate conditions. Emotional disease theories assume that emotional experiences cause illness.

2.3.4 Understanding Illness

According to Mechanic (1968), the term illness is used in two ways by analysts who study issues concerning health and illness. He stated that illness refers to a limited scientific concept or to any condition that causes or might usefully cause an individual to concern his or herself with its symptoms and seek for help. For Smith (1998), the perception by a person that he or she is not well as well as illness, are subjective sensations which may have physical or psychological causes. He concluded that, illness is also sometimes used as a synonym for disease or disorder.

Ubrurhe (2000) however stressed that the definition of disease is fraught with many difficulties consequent on the standpoint and purpose of its usage. He sees it as a subject or clinical/social need for help, which is based on a loss of tuned cooperation of physical, psychic or psychophysical functional elements of the organism. He argues that in the disease, there is a functional disturbance where harmony is replaced by contradiction and cooperation by discordance. The symptoms were due to the change or extinguishing of the regulatory processes in quantity or quality. Diseases in the words of Idler (1979) is an abstract biological-

medial conception of pathological abnormalities in peoples' bodies. This is indicated by certain abnormal signs and symptoms which can be observed, measured, recorded, classified and analyzed according to clinical standards of normality (Mechanic 1968; Coe-Rodney, 1970). In the same token, chronic ailment may also be responded to differently by people of different social status and age. The aged might perceive ailment at old age as normal in the same way as mild ill-health is accepted as a normal part of life even when it has biological underpinnings and consequently not induced illness behaviour amongst many groups of people in society (Coke & Owumi, 1996).

Similarly, Idler (1979) sees illness as the human experience of disease which is social. This state is indicated by personal feelings of pain, discomfort and so on and may lead to behavioural changes. These changes may or may not preclude objective disease reality but rooted within a social context. The above contention is succinctly contextualised by Low (1982) thus; that illness as are given socially recognizable meanings. That is, they are made into symptoms and socially significant outcome and consequently, adequate classification on causation and therapy are designed within the socio- cultural context for its management. Read (1966) observed that in African systems, there are three groups of illness: trivial or everyday complaints treated by home remedies, European disease-that is disease that respond to western scientific therapy and African disease-those not likely to be understood or treated successfully by western medicine.

This observation according to Oke and Owumi (1996) is true of many ethnic groups in Nigeria. Erinosho (1976) and Oke (1995) working among Yorubas and Owumi (1989) among the Okpe people of Delta State noted that illness etiology could be traced to three basic factors, viz: natural, supernatural and mystical. Illness is not only a personal affair, it also arouses a wide variety of feelings in the sick person and in those close to him as they engage in a search for treatment, which becomes an immediate problem (Onu 1999).

For the patient according to Onu (1999), a serious illness carries with it the underlying fear of death or permanent disability and constitutes a crisis which requires cooperative efforts both from family members and from health care providers (physical or spiritual). Maclean (1979)

observed that there are many ways in which reactions to illness resemble one another in societies which otherwise seem widely dissimilar. Maclean further alluded to the fact that regardless of the demonstrated greater pharmacological efficacy of one form of therapy than another, merely to embark upon a treatment regime which is acceptable to all one's relatives and friends, supplies the satisfaction which comes from social conformity, Scholars such as Gluckman (1966), Evans Pritchard (1937) and Marwick (1965) who have written extensively about African society, agree that belief systems as part of the structural components are causally related to illness. On the other hand illness behaviour as distinct from health behaviour according to Oke and Owumi (1996) and Mechanic (1968) refers to how illness is evaluated, perceived and acted upon by people who experienced discomfort and pains.

It is also the consciousness of the state of health and effort made to relieve one of the associated discomfort and pains experienced. The utility of these concepts of disease and illness are considered in the light of the social determinants of health services utilization and health status evaluation within a cultural context. Diseases and illness are eventualities that are ubiquitous among members of social groups. For example in developing societies where the level of disease is comparatively high, one finds that diseases and their stern implications are important objects of concern and discussion. Since disease is a recurring phenomenon people have explicit beliefs about its causes and mechanisms. When viewed in their totality, these medical beliefs constitute a layman's view about diseases. Such a view is used by medical practitioners and the lay populace to explain occurrence of disease and also to validate treatment (Fabrega 1978).

2.3.5 Traditional Medical Practice and Development

In African traditional civilizations, the healer occupied a special place within the community. However, Andah (1992) observed that these civilizations have been ravaged in recent times by incessant warfare, slave trade, colonization and now, by European technical development combined with the social phenomena created by independence. As a result, they have all, except in the remotest areas, lost their originality. Thus one is actually searching for the vestiges. Nigeria and indeed black Africa have been witnessing the gradual disappearance of professional healers as well as a decline of their knowledge.

Okaba and Atemie (1997) in their comparative discourse on the orthodox and indigenous medical practices of the peoples of Africa, however, disagreed and emphasized that indigenous medicine which was neglected for a long time is now brought into focus as its demand for the treatment of some ailments has become so high in contemporary time. They further stated that the shortcoming of the western style of medical practices, no doubt, has also helped in the resurgence of African indigenous medicine. For Okaba and Atemie, the issue of integrating both practices has become so critical and thus, raises a fundamental question of what should be the pattern of integration and the mechanism for controlling the emergent system.

These scholars further contended that a proper understanding of the socio-cultural context under which both practices operate requires a thorough examination of the structure and cultural changes inherent in African health care institutions.

The above position is further echoed by Lambo (1970) that if African perspectives have been supporting the cause of medical herbalism in African countries, many lives and money would have been saved. The less Africans are dependent on European health care systems, the more Africans will gain international recognition. Africans continue to preach this, not because they are willing to boost herbal profession but because we want our government to realize that there is much to gain from herbal drugs and thus put to an end the scandalous waste of thousands of pounds spent yearly on importing foreign drugs, many of which do not agree with African blood. For a proper utilisation of African indigenous medical traditions in African technological development, several things are required. One needs to find out, first, what these traditions are; how they affect the individual with regard to the medical systems presently accessible; how the present societal adjustments have modified and are modifying these systems and what role the sociological background of each ethnic group plays vis-à-vis the problems of maintenance of the stability or transformation of these medical systems (Andah 1992).

A great exponent of traditional medical science in Nigeria, Mbiti (2015), has succinctly pointed out the fact that, contrary to popular thinking, our traditional medicine is often based

on very close observation of nature and a real capacity for understanding empirical relations. Our traditional medicine men are often knowledgeable about parts of plants or animals, in particular, the human body and of organic and inorganic substances which have in them characteristics corresponding to what the Western man may call the properties of matter. Examples are properties of herbs, knowledge of application of water, heat and sun therapies. The sap of special plants is known to have purgative qualities, the heart of some animals such as that of the lion and the leopard is known to have fortifying properties. The traditional doctors also have the ability to heal psychological ailments through administering guilt confessions and judicious fasting. They also cure blood diseases and nervous disorders through the extraction of impure blood.

From the foregoing viewpoints, can traditional medical practice in Africa cope with the challenges of today's health problems? Can it successfully ward off the mounting opposition against its substance? Are the African governments and rulers sufficiently informed about the uses of indigenous medical practice?

Traditional healing has its roots in ancient times. Its systems and practices vary according to geography and culture, but because the different cultures do share a consciousness of the world and have in common a characteristic perception of life and health, it makes it possible to describe their overriding philosophy (Lambo, 1974). However, because of the empirical nature of traditional healing, it has not taken advantage of the advances in science and technology (Anfom, 1986). It has, therefore, by and large remained stagnant and has been overtaken by modern, orthodox scientific medicine. In the developed world, traditional medicine has practically disappeared, whilst in the developing countries where experience and lessons exist, its influence is being gradually eroded by modern practice. Nevertheless, a greater proportion of people in these societies, especially those who live in the rural areas still depend on it entirely. There is every likelihood that they will continue to do so for a long time to come. It has therefore been the avowed aim of mainstream health delivery systems to include traditional medical practitioners as members of the health team. Also, there has been the growing need to encourage practitioners of modern medicine to cast away their understandable prejudices in order to get to know more about the traditional healing system. In this way, they would help the traditional practitioners to fit into the national health system.

For the traditionalist, he/she has come to believe that the environment consists of two parts, the physical world, which is seen, and the supernatural or spiritual world, which is unseen. According to Mbiti (2015), although unseen, the supernatural world exerts a powerful influence over the natural or visible world and also is responsible for all that goes on in the physical world. Man believed, and still does, that when a person dies he lives the spiritual world and assumes supernatural power, which enables him to influence and protect the living, sometimes punishing them for errors of commission or omission. Lambo (1978) writing on psychotherapy in Africa, says that the basis of most African value systems is the concept of unity of life and time, phenomena that are regarded as opposites in the West exist on a single continuum in Africa. He states further that African thought draws no sharp distinction between animate and inanimate, natural and supernatural, material and mental, conscious and unconscious and that all things exist in dynamic correspondence, whether they are visible or not. For him the past, present and future blend in harmony; the world does not change between one's dreams and the daylight. Essential to this view of the world is the belief that there is a continuous communion between the dead and the living.

Anfom (1986) argues that since man believes that there was a divine control of the universe and that it is possible to contact this divine to find explanation for what had happened and information on what was happening or what was about (or likely) to happen, a technique of divination therefore came into being. There were the seers and oracles, which were regularly consulted by the public on a wide range of problems. These problems included those pertaining to health and disease.

According to Nukunya et al. (1974), the remedial course of action is decided by divination, a fact that makes the position of diviners very crucial in questions relating to health and diseases. Some of the diviners were able not only to assume the reasons for a particular illness but also suggest a remedy. Indeed, some have considerable wealth of knowledge about animals and flora with medicinal properties and could claim to have been the first doctors. Some of them claim the knowledge comes to them through visions and dreams. Among many non-western societies, the man who cures illnesses is looked upon more as a magician than a doctor. These doctors were also priests and practiced strictly according to rules handed down by their forebears. They seldom departed from the rules lest they become liable to punishment

by death should a patient die. Knowledge about healing therefore became stagnant, treatment became more empirical and shrouded in charms and superstitions (Nukunya, 1974).

2.3.6 Indigenous Healing

Traditional healing refers to the African's perception of health and how he/she goes about healing. Modern healing and medicine has its origins in traditional healing and medicine. The latter therefore existed long before the application of science and technology to medicinal practice. The traditional healing system is however closely bound to the culture of people; and rather an assorted collection of indigenous, unorthodox, and folk medical practices and procedures loosely bound together by a common bond of empiricism and or non-scientific approach to the whole problem of healing or health care. (Anfom, 1986). It is therefore not easy to define the traditional healing system. But a group of experts from WHO sub-region of Africa meeting in Brazzaville in 1976 attempted to do so and came up with the following definition:

Traditional African medicine or healing system might be considered to be the sum total of practices, measures, ingredients and procedures of all kinds, whether material or not, which from time immemorial has enabled the African to guard against disease, to alleviate this suffering and to cure himself and the traditional healer is seen as a person who is recognized by the community in which he lives as competent to provide health care by using vegetable, animal and mineral substances and certain other methods based on the social, cultural and religious background as well as on the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social well-being and the causation of disease and disability" (Anfom, 1986:1)

This system can also be defined as "the sum total of all the knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental, and social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing" (Anfom, 1986). In either definitions, the references to, or emphasis on, culture is indeed very evident and clear.

Before the advent of western science, medicinal practice as applied to human beings, animals

and plants was probably very similar in all parts of the world. The art is closely bound to and integrated with human culture, and because most of the developing world tend to cling on to ancient beliefs and customs and has chosen the empirical rather than the scientific approach in these areas the practice of traditional healing has stagnated and has not developed much throughout the ages.

In Africa, ill health is whatever endangers better life, therefore, healing in traditional African societies is the process of restoring life to its fullness. It has to do with the spiritual, social and mental well-being of an individual especially the harmony of the total human body. Hence the concept of healing is closely tied to the African perception of the universe and concept of man. For instance, according to Emefa (1987), the effect of African therapies does not so much lie in the drug administered as in the fact that they try to heal the whole man within the context of his/her worldview, to be healthy requires averting the wealth of gods or spirits making rain, purifying steams or habitations, improving sex potency or fecundity or the fertility or fields and crops-in short, it is bound up with the whole interpretation of life. Nwata (1988) further buttressing this assertion says that human life is believed to be of prime value and every other thing is expected to serve its realization.

It is the belief in Africa that man does not inhabit the world alone but with spiritual beings that are endowed with life as well. These beings also play a contributory role in determining the good health or otherwise of the human beings. Furthermore, the African believes that man has his spiritual as well as corporeal component. Thus in the words of Aywards (1979) *Health and healing are the most important values in traditional African religion, connected as they are with the fundamental theme of life, sickness for the African is a diminutive of life, a threat posed to life. Petition for healing is probably the most common subject of prayer.* Then also Ezeanyi (1989) says that: *Since life is such a valuable gift, it is clear that any means by which it can be saved or prolonged when it is threatened is of paramount importance. To the African, healing is one of those vital processes.* With much more specificity, Ejizu (1980) argues that Igbo perception of disease is holistic; hence their approach is multidimensional and integrative. The greatest strength of their approach is that they approach at several levels at once. Therefore, the practice of medicine in Africa is consistent with Africa philosophy and thought about the universe.

2.3.7 African Disease Perception

Across the African continent, sick people go to acknowledged diviners and healers, they are often called witch doctors in the West. In order to discover the nature of their illness in almost every instance, the explanation involves a deity or an ancestral spirit. But this is only one aspect of the diagnosis because the explanation given by the diviner is also grounded in natural phenomena (Anfom, 1986). As anthropologist Horton (1967) observes the diviner who diagnoses the intervention of a spiritual agency is also expected to give some acceptable account of what moved the agency inquestion to intervene. And this account very commonly involves reference to some event in the world of visible, tangible happenings. Thus if a diviner diagnoses the action of witchcraft influence or lethal medicine spirits, It is usual for him to add something about the human hatreds, jealousies, and misdeeds that have brought such agencies into play (Anfom, 1986), or, if he diagnoses the wrath of an ancestor, it is usual for him to point to the human breach of kinship morality which has called down this wrath

The causes of illness are not simply attributed to the unknown or dropped into the laps of the gods. Causes are always of social events. A study of the Ndembu people of central Africa revealed that diviners believe a patient will not get better until all the groups interrelations have been brought to light and exposed to ritual treatment (Deflem, 1991). Herbert and Margarete (1981) citing Lambo in his work with the Yoruba Culture found that supernatural forces are regarded as the agents and consequences of human will. Sickness is the natural effect of some social mistake- breaching a taboo or breaking a kinship rule.

African concepts of health and illness, like those of life and death, are intertwined. Health is not regarded as an isolated phenomenon but a sign that a person is living in peace and harmony with his neighbours, that he is keeping the laws of the gods and the tribe. The practice of medicine is more than the administration of drugs and potions. It encompasses all activities-personal and communal that are directed toward the promotion of human well-being". Thus Anigbo (2005) captures it all when he says that for many Igbo scholars, traditional Medicare systems border on the restoration of body equilibrium to be in tune with the natural forces

This African worldview of duality underlies all the thinking of the African, hence the system of health and healing. Ailment therefore has various dimensions in traditional African society

and whatever inhibits good health is considered as a major problem to grapple with. The diagnosis of African health according to Anfom (1986) therefore can be grouped into two main causes. First, natural, physiological causes of ailments: this refers to common diseases like fever and malaria. This is where illness is explained in impersonal systemic terms. The intrusion of heat or cold into or their loss from the body upsets its basic equilibrium. Second, if the fever or malaria becomes persistent then the question of its cause becomes a problem; the question no longer becomes what but whom. When the question of "who" comes in then the diagnosis of the ailment has moved to the spiritual, supernatural and mystic realm.

2.3.8 African Healing Methods

According to Forster's (1992) typology, therefore, if the sickness is natural or physiological, herbs are used, andif spiritual, it starts with divination and proceeds to treatment. Some herbs are ordinary and may be used whilst some are also believed to be especially spiritual. Herbalists do not only use the herbs physically but sometimes divine and consult the gods and ancestors since the African herbalist believes that it is the SupremeBeing who heals and all powers come from him.

Healing therefore is the ability to harness this spiritual herbs or items to treat. Many Africans believe that life forces are manifested in everything. Common ailments, such as headaches or coughs are considered to be diseases with natural causes. Their symptoms are treated at the household level, without resorting to magical practices. However, when a common ailment persists recourse is sought to divination in combination with herbalism. African herbal medicines are applied to every part of thebody in every conceivable way. There are oral forms, enemas, fumes to be inhaled, vaginal preparations, fluids administered into the urinal tract, preparation for theskin, and various lotions and drops for the eye, ear and nose. For the African, the spirit or power is the essence of every living creature, natural event or inanimate object. These life forces have their own personalities and cosmic place. Consequently, the preservation or restoration of health is impossible without them. Unlike a doctor trained in western medicine, the traditional African healer looks for the cause of the patient's misfortune in relation to the patient and his social, natural and spiritual environment (Smet, 1999).

Traditionally, Africans use herbal and animals products as medicines, intoxicants and poisons in the struggle for survival and in their religious experiences. A healer's power is not determined by the number of medicinal plants he or she knows, but by the ability to apply an understanding of the intricate relation between the patient and the world around him or her. The healing process, in cases where the causes are classified as spiritual or supernatural starts with divination (Anform, 1986). Various forms of divination like interpreting the movements of a small metal ring hung on a thread and dangled before the patient, interpreting the position in which cowrie's shells and broken pieces of metals and wood thrown randomly on the ground fall, examine the marks left on sand by an animal attracted by a bait and strange footprints. Interpretation of gestures or utterances (however unintelligible) made by possessed persons in trance, and water gazing in which the diviner communicates with the appropriate spirit whose imagehe sees reflected in a pot or water. According to Anform, (1986) divination is so integral to the healing process. Three reasons account for divination; firstly, to knowwhat is in store for the client, secondly to seek cure and thirdly for prophylaxis. The same person, who has the power to deal with the spiritual realm, often practices divination and healing. It is not surprising then that diviners are generally listed as the most important traditional African healers (Anfom, 1986).

Traditional healing and medicine, like its western medicine counterpart, has its peculiar problems. Commenting on the problems of traditional healing and medicine, Ofodile, (as cited by Anfom, 1986) writing in the Daily Times of Nigeria" condemned the harmful practices of traditional healers and suggested some form of effective control over them. Chief J. O. Lambo, President of the Nigeria Association of Medical herbalists in a rejoinder accused Dr. Ofodile of displaying a "colonial mentality" and pointed out that a lot of harm was being done in hospitals too, and that it is not uncommon for patients to die there. For him death will come when it will, it is sheer hypocrisy to assign the cause of a death to a particular art. According to him the span in Nigeria was longer before the white man came than at present. He further stated that Dr. Ofodile must have been nursed by traditional medicine when he was young because all African mothers are used to it (Anfom, 1986).

To the western eye, such lingering beliefs in ritual and magic seem antiquated and possibly

harmful obstacles in the path of modern medicine. But the fact is that African cultures have developed indigenous forms of psychotherapy that are highly effective because they are woven in to the social fabric (Lambo, 1978). Although many African therapists are adopting western therapeutic methods, few Africans are simply substituting new methods for traditional modes of treatment. Instead they have attempted to combine the two for maximum effectiveness.

But there has been a tendency in Western medical journals to play down such expertise of traditional healers by focusing on the risks of traditional African medicines. Though there is a genuine case for concern, it is unfair to pass judgment on African healing simply on the basis of its worst results. Below are some major shortcomings associated with the African healing systems.

2.3.9 Psychological Aspects of Healing in African Societies

The African traditional psychological aspects of healing have been demonized, while the religious ones have found expression in Western-type Christianity and in African Independent Churches. As earlier noted, since the advent of Christianity and colonialism in Africa, African psychological healing, which involves promoting the mental and emotional well-being of the individual, has been discredited. Those who dare consult experts of African psychological healing are branded satanic (Mumo 2009). Yet African psychological healing is developed in an African environment to address specific problems. Some Africans are afflicted by certain crises that can only be addressed using this approach. These afflictions include barrenness, mental disturbances, misfortunes and effects of witchcraft and sorcery in humans, combined with unproductive farms and animals (Mumo, 2009).

According to Mpolo and Kalu (1983), life in Africa is viewed in its totality. Health is associated with goodness, blessings, beauty, and all else that is positively valued in lif. Wholeness of life in Africa is therefore a religious dynamic that informs all occurrences, and is used to interpret all events (Mpolo & Kalu 1983). Mpolo and Kalu also observe that Healthy living includes not only the absence of disease, but also the presence of good relations with all as well as positive abundant living that is seen in having visible well-being symbolized by bodily strength, wealth and people especially children. When Africans talk of well- being, they mean a state of being in good relations with both the physical and spiritual

worlds. Africans believe that hidden causes can have demonstrable effects (Mumo, 2009). Thus medicine in Africa is conceived to have not only a physical meaning, but also metaphysical and spiritual significance (Lugwuanya, 2000).

In contemporary Africa, psychological healing has been expressed in faith healing (Ndun'gu, 1994). Since the advent of the missionary enterprise and modernisation, faith-healing has been carried out both in rural and urban settings. The use of medicine by missionaries attracted many Africans to Christianity. Western medicine was used as a tool of evangelisation. The Africans were attracted to the missionary's medical services where some form of spiritual healing was used. The early African evangelists used preaching and spiritual healing to attract thousands to Christianity. For example, Simon Kimbangu in Congo used prophetic and healing ministries to eradicate witchcraft, wicked spirits and bad medicine (Ngewa, 1998). Through the use of healing, Kimbangu removed the cause of suffering among his people (Best, 1975). Similarly, the "Akurinu" Churches in Kenya have practised faith healing since they were started. Their followers are not allowed to seek treatment in hospitals (Ndun'gu, 1994). In addition, many newly formed Churches in Africa promise healing as a prominent aspect of their ministry. To effect faith healing African preachers make use of the name of Jesus, the Holy Spirit, water and specially prepared oils.

2.3.10 Medicine-men and Healing in Contemporary African Societies

African medicine-men have continued to practice their trade in spite of the changes that have taken place in the continent. In most African villages or administrative locations, there is medicine-man who is knowledgeable in some aspects of healing. Africans regularly consult these medicine-men to get answers on health and life issues. Many Africans also combine modern drugs with traditional medicines (Mumo, 2009).

Despite the discrediting of African medicine-men, they remain a key pillar in the healing process in the continent. Condemned, disregarded or unappreciated, they continue to do what they know best. Those who approach them include both the high and low. The medicine-men do not pretend to compete with modern medicine; rather, they supplement modern health services throughout Africa. In Kenya, for example, there has been collaboration between the

herbalists and Kenya Medical Research Institute (KEMRI). Some of the African herbs have been analysed in modern laboratories and certified to cure certain ailments. African herbs are also being dispensed in liquid, tablet or powder form in well packaged containers. Some traditional medicine-men are doing extensive research and coming up with new medicines. Others have embraced modern marketing strategies and are advertising their herbs through the mass media. Vernacular FM stations scattered throughout the continent have also been effectively used to market African herbs. Some of the medicine-men engage in live radio and

Many times Africans consult medicine-men when other forms of treatment have not achieved desired results. For example, when they repeatedly experience misfortunes in their lives, they consult medicine-men. According to Africans, these problems do not occur by accident, but are caused by certain forces, including human agents through magic and witchcraft. They believe that medicine-men have the ability to explain the causes of these misfortunes and to prescribe appropriate antidotes. Thus medicine-men who deal with the psychological aspects of ill-health are to be found in villages and urban centres.

However, in contemporary Africa, holistic healing is besieged by a number of challenges. First, in recent times, some individuals who are not gifted in healing have infiltrated the field of medicine-men. A number advertise on billboards about the efficacy of their healing, with some claiming to come from different African countries. This has challenged the practice because it is difficult to determine who is genuine and who is not.

Second, the west continues to dominate Africa in numerous areas, not least in commerce. As a result, Africans have been turned into unreflective consumers of western industrial and cultural products. Thus medical products from western countries have been promoted as being the most effective. This has impaired the promotion of African healing products (Mumo 2009).

Third, although as alluded earlier there has been some collaboration between African medicine-men and Western-type medical research institutions, very little systematic study of

African traditional healing has been carried out. Hence it is difficult to ascertain the efficacy of most of the African medicines.

Fourth, some of the African medicine-men are not genuine, having joined the profession because of a desire for quick money. Others are involved in unorthodox methods, where they are alleged to mix African herbs with some chemicals produced in the West, bringing into question the safety of the herbs they dispense. Yet it is noteworthy that even some of the pastors involved in faith-healing are questionable, alleging to cure all ailments.

Fifth, Christianity continues to be a challenge to the practice of African traditional healing. Missionaries and Churches promote western medicine, which at times is seen as being more effective. The churches encourage their followers to consult modern medicine. Since a large number of Africans are Christians, they are socialized to appreciate modern medicine. This discourages the promotion of African medicine. The prejudices, which were initially associated with missionaries, are now propagated by African Christians.

2.3.11 Traditional Medicine

Despite the challenges that African traditional medicine is facing, there are areas in which it can collaborate with modern medicine. First, some of the African traditional herbs are known to boost body immunity, and hence to contribute to good health. As such, health institutions should collaborate more vigorously with traditional healers. Second, the psychological aspects of healing, some of which are also employed by religious faith healing, can be accommodated in modern healing. Ross observes: Religious belief is expected to reduce psychological distress especially depression, anxiety and related psychological symptoms. Religion is thought to comfort, relieve pain and suffering, make life worth living (Ross1990).

Thus the comfort, encouragement and explanation of the causes of suffering given by African medicine-men should be appreciated instead of being condemned. Third, African medicine-men involve members of society in the healing process by allowing them to participate in the rituals that they perform. The western tendency to view treatment as an individual's affair should be avoided, and the communal aspect associated with African holistic healing

incorporated into modern healing processes. Traditional medicine (TM), variously known as ethno-medicine, folk medicine, native healing, or complementary and alternative medicine (CAM), is the oldest form of health care system that has stood the test of time. It is an ancient and culture-bound method of healing that humans have used to cope and deal with various diseases that have threatened their existence and survival. Hence, TM is broad and diverse. Consequently, different societies have evolved different forms of indigenous healing methods that are captured under the broad concept of TM, e.g. Chinese, Indian and African traditional medicines. This explains the reason why there is no single universally accepted definition of the term. This notwithstanding, one of the most acceptable definitions of TM has been provided by the World Health Organisation (WHO). According to the World Health Organisation, TM is "the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses" (WHO, 2000). Traditional healer, on the other hand, is "a person who is recognised by the community where he or she lives as someone competent to provide health care by using plant, animal and mineral substances and other methods based on social, cultural and religious practices" (WHO, 2000).

Prior to the introduction of the cosmopolitan medicine, TM used to be the dominant medical system available to millions of people in Africa in both rural and urban communities. Indeed, it was the only source of medical care for a greater proportion of the population (Romero-Daza, 2002). There are strong indications that traditional health care systems are still in use by the majority of the people not only in Africa but across the world. In Africa, the healers are variously addressed as Babalawo, Adahunse or Oniseegun among the Yoruba speaking people of Nigeria; Abia ibok among the Ibibio community of Nigeria; Dibia among the Igbo of Nigeria; Boka among the Hausa speaking people of Nigeria; and Sangoma or Nyanga among South Africans (Cook, 2009). In indigenous African communities, the traditional doctors are well known for treating patient holistically. They (the traditional doctors) usually attempt to reconnect the social and emotional equilibrium of patients based on community rules and relationships (Hillenbrand, 2006) unlike medical doctors who only treat diseases in patients. In many of these communities, traditional healers often act, in part, as an intermediary between the visible and invisible worlds; between the living and the dead or ancestors, sometimes to determine which spirits are at work and how to bring the sick person

back into harmony with the ancestors. However, the arrival of the Europeans marked a significant turning point in the history of this age-long tradition and culture. In this paper, the trends and challenges of African traditional medicine are examined with emphasis on the efforts towards the integration of TM into the mainstream of health care systems.

Discourses about the impact of colonialism in Africa are clouded by a mixture of 'fortune' and 'agony'. Some scholars (such as Curtin, 1989, 1998; Olsson, 2009) are of the opinion that the process of modernisation in Africa is intrinsically connected with foreign intervention particularly in areas of health and democracy. For example, Curtin (1998) argues that the period between 1840 and 1860 marked a significant and rapid innovation in tropical medicine, particularly, the invention of quinine to stem the scourge of malaria in the most endemic region of the world. From this point of view, the institutionalisation of the modern health care system can, therefore, be seen as one of the many 'legacies' of Western encroachment in Africa. On the contrary, there are those who believe that Western invasion was/is a set-back in the process of development in Africa (Achebe, 1958; Afisi, 2009; Offiong, 1980; Rodney, 1972) particularly in 'modes of knowledge production' (Taiwo, 1993). These scholars mention slavery, capitalism, colonialism and imperialism, neo-colonialism and all forms of dominations and exploitations that were/are embedded in these epochs as major stumbling-blocks in the actualisation of indigenous African development. Indeed, the current political and socio-economic crises in Africa are attributed to colonialism and its attributes.

Similarly, while some critics of colonialism have focused on the economic and political impacts, others have shifted attention to the impact of colonialism on indigenous knowledge system (IKS) (Mapara, 2009) especially knowledge of medicine (Feierman, 2002; Konadu, 2008; Millar, 2004; Paul, 1977). Such arguments underscore the negative impact of colonialism on indigenous medicine. It is explained that the introduction of Western medicine and culture gave rise to 'cultural-ideological clash' which had hitherto created an unequal power-relation that practically undermined and stigmatised the traditional health care system in Africa because of the over-riding power of the Western medicine. This became manifested in South Africa during the Apartheid regime. According to Hassim et al. (http://www.alp.org.za): a century of colonialism, cultural imperialism and apartheid in South

Africa have held back the development of African traditional health care in general and medicines in particular. During several centuries of conquest and invasion, European systems of medicine were introduced by colonisers. Pre-existing African systems were stigmatised and marginalised. Indigenous knowledge systems were denied the chance to systematise and develop.

In some extreme cases, TM was out rightly banned. For instance, the South African Medical Association outlawed traditional medical system in South Africa in 1953 (Hassim, et al. n.d). In addition, the Witchcraft Suppression Act of 1957 and the Witchcraft Suppression Amendment Act of 1970 also declared TM unconstitutional thereby disallowing the practitioners from doing their business in South Africa (Hassim et al. n.d.). The ban of TM was partially based on the belief that the conception of disease and illness in Africa was historically embedded in "witchcraft" where, in Western knowledge, witchcraft reinforces "backwardness", "superstition" and "dark continent". However, recent studies have shown that etiologies of illnesses in Africa are viewed from both natural and supernatural perspectives (Bello, 2006; Erinosho, 1998, 2005, 2006; Jegede, 1996; Oke, 1995). The subjugation of TM continued in most African countries even after independence. Indeed, local efforts were initiated to challenge the condemnation and stigmatisation of TM in some African communities during and after colonialism. Erinosho (1998; 2006) reported that the first protest against the marginalisation of TM in Nigeria is dated back to 1922 when a group of native healers insisted that their medicine be legally recognised.

In post independence Africa, concerted efforts have been made to recognise TM as important aspect of health care delivery system in Africa. For instance, in Nigeria, the Federal Government through the Ministry of Health encouraged and authorised the University of Ibadan in 1966 to conduct research into the medicinal properties of local herbs with a view to standardise and regulate TM (WHO, 2001). In 1980s, policies were put in place to accredit and register native healers and regulate their practice. In 1981, the National Council on Health (NCH) unanimously approved the establishment of a National Traditional Healers' Board at the Federal level involving representatives of the Federal and State governments which was to be duplicated at the State levels. Under the present health care reform of the Federal Government of Nigeria, TM is purportedly recognised as an important component of health

care delivery system especially at the primary care level (Federal Ministry of Health (FMoH), 2004). The Federal Government of Nigeria has established the Nigeria Natural Medicine Development Agency (NNMDA) to study, collate, document, develop, preserve and promote Nigerian traditional medicine products and practices and to also fast-track the integration of the TM into the mainstream of modern health care system in line with happenings in China and India (The Sun news online, 2010). However, the lingering mutual distrust between allopathic and traditional practitioners in Africa has continuously hampered and thwarted the process of integration and cooperation between traditional and modern medicines (Nevin 2001) as well as the difficulties in regulating traditional medical practices. On the whole, Western-trained physicians appear unwilling to allow TM and their practitioners included in the official system of medical care in Africa. For instance, Ebomoyi (2009) found out that Nigerian medical students have reservation for the integration of TM into the mainstream of health care provision in the country. This is an indication that not much is being done in medical schools to encourage the teaching of TM as they keep unfolding in some parts of the world.

Although, "passionate ambivalence" towards TM has been noted in Africa (Bello, 2006; Feierman, 2002), TM is still in use in modern day Africa after hundreds of years of its existence without much reported cases of adverse effects (Okigbo and Mmeka, 2006: 83). In countries like Ghana, Mali, Zambia and Nigeria, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicine (WHO, 2002b). Carpentier et al.(1995) discovered an increasing demand for TM in the case of rheumatic and neurological complaints in Burkina- Faso. In Ghana, about 70% of the population depends primarily on TM (Roberts, 2001). About 27 million South Africans (usually the black South Africans) use TM to treat a variety of ailments (Lekotjolo, 2009; Mander, et al. 2007). Makundi et al. (2006) found out that traditional health care has contributed very significantly to the treatment of degedege (convulsions) in rural Tanzania. In some instances, patients use TM simultaneously with modern medicine in order to alleviate sufferings associated with disease and illness. Amira and Okubadejo (2007) reported that a significant number of hypertensive patients receiving conventional treatment at the tertiary health facility in Lagos, Nigeria, also used CAM therapies.

Similarly, the growing demand for TM in Europe, Asia and America has also been documented. It has been revealed that between 40% and 60% of the population in Western Pacific Region use TM to treat various diseases (WHO, 2001). At one time or the other, about 60% of the population in Hong Kong has consulted traditional health practitioners. There are indications that CAM is gaining widespread acceptability in Australia, France and Canada with 46%, 49% and 70% of the population respectively using TM (WHO, 2002a; Amzat and Abdullahi, 2008). In the United Kingdom (UK), almost 40% of the physicians make some alternative referrals (WHO, 2002a). The WHO's regional office for Americas' (AMRO/ PAHO) report demonstrates that 71% and 40% of populations in Chile and Colombia respectively have used TM (Amzat & Abdullahi, 2008).

As a result, WHO has acknowledged the contributions of traditional healers to the overall health delivery particularly in developing countries (see WHO, 2001; 2002a; 2002c). According to the World Health Organisation the native healers have contributed to a broad spectrum of health care needs that include disease prevention, management and treatment of non-communicable diseases as well as mental and gerontological health problems (WHO, 2001). There are also increasing evidences that TM is effective in the management of chronic illnesses (Thorne et al. 2002). In fact, TM is taught as part of school curriculum activities in medical schools in the USA (Wetzel et al. 1998). Perhaps, some important questions to ask are: Why the growing demands for TM across the world? And why the sudden concerns for assessing and evaluating the effectiveness of TM?

2.3.12 Resilience of Traditional Medicine

A number of factors have been identified as responsible for the widespread use of TM and the sudden concern for assessing and evaluating the effectiveness of the medicine across the world. Research has shown that a number of traditional medicines are important and effective therapeutic regimens in the management of a wide spectrum of diseases some of which may not be effectively managed using Western medicines. According to Mander et al. (2007: 190) among South African black population, TM "is thought to be desirable and necessary for treating a range of health problems that Western medicine does not treat adequately". In Nigeria, effective medicinal plants in management of various diseases have been documented (Aiyeola & Bello, 2006; Blench & Dendo, 2006a; 2006b; Fasola, 2001; Obute, 2005;

Ogunshe et al. 2008; Sofowora, 1993; Weintritt, 2007) including those used for the treatment of opportunistic infections associated with HIV/AIDS (Enwereji, 2008). Weintritt (2007) identified at least 522 medicinal species used in the management of numerous ailments in Nigeria. Medicinal values of insects have also been documented in Nigeria (Banjo et al. 2003; Lawal et al. 2003). Banjo et al (2003) found out that among the Ijebu Remos, some insects, when combined with other ingredients, can be used for spiritual protection, preparation of love medicine, management of the eye and ear problems, as well as prevention and control of convulsion in children. In the same vein, arthropods are reportedly used to cure thunderbolt ('magun'), child delivery ('igbebi'), bedwetting ('atole'), yellow fever ('iba apanju') and a host of many other ailments that can not be treated using Western medicines and therapy (Lawal and Banjo, 2007). The table below showcases some African phytomedicinals available in international market.

Furthermore, inadequate accessibility to modern medicines and drugs to treat and manage diseases in middle and low income countries, especially in Africa, may have contributed to the widespread use of TM in these regions especially in poor households. In a recent study by the World Health Organisation and Health Action International (HAI) in 36 low and middle-income countries, drugs were reportedly way beyond the reach of large sections of the populations (Cameron et al. 2008: 6). Therefore, the widespread use of TM in Africa can be attributed to its accessibility. For instance, the ratio of traditional healers to the population in Africa is 1: 500 compared to 1:40 000 medical doctors (see table 2 below for details). Indeed, majority of medical doctors available in Africa are concentrated in urban areas and cities at the expense of rural areas. Therefore, for millions of people in rural areas, native healers remain their health providers.

Besides accessibility to traditional healers, TM provides an avenue through which cultural heritages are preserved and respected. Indeed, TM practice is in line with the socio-cultural and environmental conditions of the people who use it in Africa (Owumi, 2002). TM is sought by Igbo women from Ibiobio indigenous healers in Akwa Ibom State, Nigeria, for i) health conditions that had failed to respond to initial treatment, ii) health conditions stigmatised at communities of origin and iii) health conditions thought to have resulted from supernatural causes (Izugbara, 2005). Okigbo and Mmeka (2006) attribute the use of TM to safety,

acceptability, affordability, compatibility and suitability for the treatment of various diseases particularly chronic ones.

In developed countries, on the other hand, factors responsible for the widespread use of TM are beyond accessibility, affordability and cultural compatibility. According to the World Health Organisation (2002a) anxiety about the adverse effects of chemical drugs, improved access to health information, changing values and reduced tolerance of paternalism are some of the factors responsible for the growing demand for CAM in developed countries

Following the growing demand for TM and the contributions of the medicine to the overall health delivery system particularly in Africa, some authors have suggested that traditional medical system be integrated into the mainstream of health care services to improve accessibility to health care (see Erinosho, 1998, 2005, 2006; Obute, 2005; Odebiyi, 1990; Okigbo and Mmeka, 2006). For example, Obute (2005) asserts that "like all peoples of the world the south-eastern Nigerians have their rich traditional medicine that should be properly organised and formally integrated into the regular healthcare delivery system". This, according to Odebiyi (1990: 341), would improve health care in two folds: enhancement of quality of care and supply of low-cost primary health care. In the same vein, the resolution made at the Regional Committee for Africa, in 2000, recognised the potential of TM for the achievement of universal health coverage in the African Region and suggested accelerated development of local production (WHO, 2002a; 2000c). consequently, the publication of methodologies on research and evaluation of traditional medicine by the World Health Organisation (see WHO, 2000b) and "guidelines for assessing the quality of herbal medicines with reference to contaminants and residues" (see WHO, 2007) were to ensure that people have adequate access to the kinds of information required for effective use of TM and appropriate methodology to be adopted by Member States in their effort to integrate the medicine into the mainstream of health care system.

2.3.13 Medicinal Plants and the Cure of Malaria

The shift in the paradigm and metatheory of health delivery which is evident in the recognition of the efficacy of African indigenous medical knowledge (AIMK) in the promotion of health

including the control and elimination of a wide spectrum of disease has lead to a focus, specifically, on what Africans know about medicinal plants and how they deploy the knowledge to promote health (Rankoana, 2013, 2001; WHO, 2002; Mahwasane, Middleton & Boaduo, 2013; Shilubane, 2008). The World Health Organization (WHO) has provided technical, logistical and financial support to boost research and investigations in this area. In fact a veritable industry centred on the identification of medicinal plants has emerged. Universities in Africa and African academics have joined in the race to find out what their own diviners and herbalists know about medicinal plants. National Research Foundations have invested large ammounts of scare funds to find out what indigenous Africans know about medicinal plants. The disciplines of Medical Anthropology and Ethnomedicine in African universities have been catapulted to the front in this increasingly critical area of research.

The knowledge about what indigenous African healers, diviners, and herbalists know about indigenous medicinal plants has increased due to high level doctoral investigations in South Africa (Rankoana, 2013; Shilubane, 2008). These scholars who have now become experts on medicinal plants have published their findings in national and international journals (See Rankoans 2014, 2001). For each of the medicinal plants they have identified, they have provided botanical, vernacular, and family names. They also provide information about the part of the nedicinal plant and its function/value in medicine. The table below for instance, appears in Rankoana (2014)

Table 2.1: Medicinal plants administered for preventive and protective care by traditional health practitioners

Botanical, vernacular and family names	**Part used**	**Value**
Amaranthus hybridus L.(sebjane)	Root	immunization and charm
Amaranthaceae		
Berchemia discolor (Klotzsch Hemsl.) (monoko) **Rhamnaceae**	Root bark	immunization and charm
Cotyledon orbiculata L.(kheredile)	Leaf	Charm
Crassulaceae		
Drimia robusta Bak (phaya-bašimane)	Bulb and leaf	immunization and charm
Hyacinthaceae		
Siphonochilus aethiopicus (Schweif) B.L. Burt (serokolo) **Zingiberaceae**	Bulb	Immunization

(Sourse: Rankoana, 2014)

In the area of medicinal plants which treat and cure malaria in Ethiopia, Suleman et al., (2018) have identified twenty seven (27) such plants. For each of the medicinal plants they have provided the venecular name, scientific name, family name, voucher number, life form (tree, shrub, herb), parts used, site of growth (domestic, wild), mode of use (fresh, dried), route of administration (oral, topical, inhalation) and number of informants. Similar investigations have been carried out in other African countries: Nigeria (Zakariya et al., 2021), Kenya (Munguti, 1997), Cameroon (Pierre, 2011), Ghana (Adjel, 2018) to mention a few countries.

What emerges in this area, is that African people have developed potent cultural knowledge about plants that can be used to treat and control the pernicious disease of malaria. In most African countries, due either to the unavailability of western drugs, rising prices or counting trust in the efficacy of indigenous cures, African people are increasingly relying on indigenous health knowledge to manage malaria and other health problems. Medicinal plants are used not only for treatment/curative purposes, but also for preventive and immunisation purpose. Some governments-Nigeria, Cameroon- have started deploying the indigenous health system as a parallel system of primary health care. They have however created Western-based mechanisms of quality control in order to ensure health safety.

Indigenous environmental knowledge needed to anticipare the occurance of malaria and control the breeding of mosquitoes is quite extensive particularly in malaria prone areas (Munguti, 1997). Indicators for the occurance of malaria have been identified and interpreted by IK holders. In Zimbabwe, for instance, the most used indicator for predicting the occurance of malaria by IK holders was plant phenology. Other indicators were centred on the movements and behaviours of birds, insects, and animals. The synthesis of knowledge from these predictors provided them with an early warning system which enabled them to initiate preventive regimes which reduced considerably the impact of malaria (Macherera & Chimbari, 1996). Rumutsa (2020) comes to similar conclusions after studying the knowledge of IK holders related to malaria prevention in Limpopo Province in South Africa. The knowledge links between certain behaviour characteristics of the environment and the occurance of malaria which is extensive in Africa, meant that Africans were not hapless victims of malaria before racist colonial invasions. In fact the neglect and inferiorrisation of such knowledge rooted in the Caucasion reality structure constitutes a serious threat to African health in the current neo-colonial environment.

Western/Caucasian science and medical science in particular provide the hegemonic knowledge in the area of control and elimination of malaria in Africa, through the overarching influence of the WHO and Westerm European medical research foundations/associations. Knowledge about mosquitos, malaria disease, the control and elimination of the disease, has virtually displaced African Indigenous Knowledge (Minja & Obrist, 2005). The orientation towards control of nature and humans which is a core characteristic of Caucasian science which is rooted and derive from Caucasian reality structures (Carruthers, 1999) has advanced knowledge of malaria , its treatment, cure and control along certain lines related ultimately, to the dictates of global Caucasian global supremacy. This knowledge has been aggressively imposed on the rest of humanity since the European Renaissance (Carruthers, 1999)

A perusal of Western-based knowledge/literature on the mosquito and malaria informs that the disease is caused by five species of the protozoan parasites belonging to the genus plasmodium (Garg et al., 2017). The human malaria causing species are plasmodium falsiparum, plasmodium malariae, plasmodium vivax, plasmodium ovale, and plasmodium knowlesi. Plasmodium knowlesi which causes malaria in monkeys in South-East Asia, also causes malaria in humans. The biology and the life cycle of the malaria carrying mosquito is now fairly well known in western scientific and medical science circles. This has provided scientists the means to prevent, cure and gain relative control of malaria. Anti-malaria drugs, chemical methods and environmental science approaches to kill the mosquitos itself, are available for use to control and eliminate malaria. Reference here is to chemical sprays in homes and at the breeding sites of the malaria carrying mosquito. Both drugs and chemicals sprays have not completely eradicated malaria and the mosquito due to development of resistence to such drugs amd chemicals (Carg et al., 2017). So the struggle against malaria is perennial.

2.4 An African-Centred/Afrocentric Critique of the Dominant Discourse on African Indigenous Knowledge Systems (AIKS)

The critique of dominant discourses on AIKS is framed by the knowledge and ideation prevalent in African deep thaught generated by Nile Valley thinkers in Kemet (Ancient Egypt) as well as recent deep thinkers such as the late Senegalese multigenius, Diop (1974, 1978, 1991), Asante (1980, 1987, 1990), Karenga (2006), Carrithers (1984, 1999), Nobles (1986), and Azibo (2014, 2015, 2018) who have constructed the Afrocentric paradigm and Afrocentric metatheory. Arguably, Diop stands at the beginning of the articulation of what we refer today as Afrocentric theory and the Afrocentric paradigm. The basic thrust of this paradigm was

unpacked in Chapter One, so it is not necessary to provide details except to emphasise that the paradigm draws its concepts from the irrefragable African worldview or African reality structure/deep structure of African culture (Azibo, 2018).

It is necessary to start with how the experts in the field of IKS define and conceptualise AIK. The following claims are commonly held by experts in the field: (a) AIK is "local" and "geographic site specific" (b) AIK is "subjugated knowledge", (c) AIK is "traditional knowledge" inferior to science and (d) AIK is "transmitted orally" from generation to generation (cf Granier, 1998; Odora-Hoppers, 2002, 2004; Warren , Bronkesha & Slikkeveer, 1993; Semali & Kincheloe, 1999). These claims are problematic. They tend to cloud our understanding of the nature of AIK and prevent us from recognising and realising the full potential of this African knowledge in the struggle to create a liberatory identity. The claims also slow down the development, in African freedom fighters, of a consciousness of victory in the continuing struggle against European supremacist rule and domination (cf Dhliwayo, 2008). Let us remember that one of the major reasons Europe continues to dominate us (Africans) is our continuing use of the epistemic framework she arrogantly and aggressively imposed on us.

First, it is a serious distortion to claim/define AIK as a phenomenon which is "local" and "geographich-site" specific. African historical and cultural experience is replete with short and long distance migration within the African continent since the emergence of homo sapiens sapiens sincein Eastern Africa (Diop 1974, 1978). The Bantu migrations from what today is the Nigeria/Cameroon border to the eastern and southern parts of Africa are now well known to require iny description in this discussion. There has always been a lot of cross-fertilisation of concepts, ideas, and knowledge on the African continent. Williams (1976), Diop (1974, 1989, 1991) and Asante (1980, 1990) who have conducted extensive scientific research on the continent have provided solid and incontrovertible evidence of a common cultural universe in Africa. A common African reality structure (African ontology, cosmology, axiology, logic, teleology etc) exists on the continent. It is this reality structure which accounts for a common African Indigenous Knowledge System (AIKS). To claim cultural unity on the continent at a deeper level does not however imply the absence of diversity on the surface level. The fact that pots or baskets manufactured by the Va-Tsonga and the Ba-Pedi manifest different in shapes does not indicate they do not share a common culture at a deeper level.

We must reemphasise and realise that the African worldview/reality structure/ survival thrust which is irrefragable (Diop, 1991; Asante, 1990, Carruthers, 1999; Azibo, 2018) funtions as a unifying interpretive reference base for African people (Dhliwayo, 2008). Definition of AIK as "local" and "geographic-site specific" blocks an appreciation of this unity. This distorted definition of AIK is a hangover of Eurocentric/Caucasian anthropological studies which tended to focus on small scale organisations which they called "tribes" which were assumed to be isolated and static. This hangover which afflicts our "experts" on AIK must be "put out to pasture" if our understanding of AIK as a continent-wide knowledge phenomenon rooted in an irrefragable African-centred reality structure which has developed since the dawn of the African homo sapiens sapiens has to advance.

The notion that the AIK is "subjugated knowledge" (Semali & Kincheloe, 1999) misinterprets AIK. This notion, in the view of these two scolars, supposedly captures the marginalised relations of AIK to Caucasian science in colonial and neo-colonial situations. This notion is, however, a misinterpretation of the actual situation on the ground in Africa because it ignores the continuing agency and potency of AIK in negotiating life for Africans in our rural communities. Caucasian science may be dominant in the social and economic sectors controlled by Caucasians (capitalist mines, factories, South Africa's iniversities which have not yet been de-Caucasianised), but this is certainly not the case with the vast rural areas where the majority live. If a few elites who are graduates/products of colonial universities negotiate life with Caucasian cognitive structures and are therefore psychologically and culturally misoriented to reality and thus miseducated, this is certainly not the case with the vast majority who continue to deploy AIK. For them AIK is a crucial resource not only for survival but for resistance and cultural empowerment. AIK must be defined, not as "subjugated knowledge" but as live, potent knowledge for resistance and empowerment which exists continent-wide.

The claim that all AIK was/is orally transmitted can only be made by those Africans who are ignorant of the historical and cultural experience of Africans. The claim is absolutely false. Kemet which has always and has been an African country was the first in the world to develop a writing system which the scribes called Mdw Ntr (Dinine Script) and incorrectly called hieroglyphics (sacred inscriptions) by the Greeks. The Africans of that African-built civilisation transmitted their indigenous philosophy, methamatics, and natural and social science from one generation to another through Mdw Ntr (Diop, 1974). Why have our experts missed this? Have they been mislead by the racist Egyptologists who have taken Africans out

of Kemet (Ancient) and Kemet out of Africa currently hidden and stored in Caucasian museums contain AIK Nsibidi, an Efik (Eastern Nigeria) writing system, has existed for centuries and resembles Mdw Ntr (Asante, 1990). There are several other scripts/graphic systems in other parts of Africa which were deployed for AIK transmission. The truth is that while some AIK holders transmitted their knowledge orally, some did so through indigenous graphic systems which were never influenced by Caucasian systems. Some of these systems may have declined and disappeared because of the destructive imposition of a racist anti-African colonial system of Caicasian imperialism on African people.

The claim that AIK is "traditional knowledge" which is inferior to European science is not entirely correct. This claim only represent the arrogant ignorance of Caucasians who have always sought to pedestal their despiritualised and desacralized knowledge in all areas of people activity in persuit of global European supremacy (Welsing, 1991; Azibo, 2017, 2018). There is certainly no doubt that the European scientific revolution which started in the 17th century has provided Caucasians with massive power to dominate nature and non-Europeans. Human comfort has increased relative to some aspects of the past, but the same Western science has precipitated disasters such as the global warming and air pollution. Humanity today is threatened with ecocide which in turn threatens human survival. The fact that African survival is aslo threatened by the effects of scientific paradigms the construction of which they had no hand in its tragic. Where then is the superiority of Western science? Finch iii (1996) has provided us with evidence of the high level of the technical and scientific precision of the African scientists of Kemet whose methamatics and physics built the pyramids. Evidence of Kemetic proficiency in Astronomy abounds. Kemetic scientists were able to predict lunar eclipses. They were able to trace and measure accurately the movements of the "heavenly bodies" which allowed them to produce the calendar we use today. This calendar, a product of AIK, is superior to any system the Caucasian calendrists produced.

It may also be noted that Western science, whose focus has been on the material dimension of the universe, has provided humanity with a despiritualised universe (Ani, 1994). A science based only on the five senses cannot but be inadequate. The consequences of the neglect of the spiritual dimension of reality has led to the moral impoverishment of Western dominated society. Is a science based on the humanistic Maatic principles of truth, justice, order, balance, reciprocity, righteousness, and harmony which is what AIK is, not superior to one based on the domination of nature?

It is not possible to grasp the essence and nature of AIK if we do not know the nature of the African human. If the African human is the producer of AIK, AIK's essence, nature, and purpose can only be explainable in terms of African human beingness and its nature and purpose. AIK involves a spiritual knowingness geared towards the creation of communities based on maat.

2.5 Conclusion

The lack of the African-centred literature on IKS and Western science w have been able to identify does not frame the discourse on health and disease in a manner suggested bythis critique. Discourse on IKS and Western science-including that our experts- is still tied to the "apron strings" of Caucasian paradigms. This exploratory study seeks to be part of the discourses of those African warrior scholars who have headed Fanon's (1963) call to African scholars to leave Europe and centre on Africa.

CHAPTER 3
RESEARCH METHODOLOGY: USE OF INDIGENOUS KNOWLEDGE AND PERCEPTIONS IN CONTROLLING AND ELIMINATING MALARIA

3.1 RESEARCH METHODOLOGY

All research methodologies are worldview-specific (Carroll, 2008). What is being suggested here is that a researcher's worldview determines and constrains the research methodology deployed in a research project. However, when a researcher's worldview is fundamentally different from and antagonistic to the worldview of people who are the subject of research, the research project itself and the knowledge produced become forms and instruments of oppression (Asante, 1980; 1999; Akbar, 1984). Since Afrocentric research is conducted for the benefit of African people and, in particular, for improving and enhancing their life chances, it is incumbent upon the researcher to deploy a methodology whose basic assumptions derive from the irrefragable African worldview. It is necessary to emphasize, as noted in Chapter One, that the African people of the Dan community, have a distinct worldview, evident in their ontological, cosmological, axiological, and epistemological orientations. The assumptions which necessarily structure and constrain the research methodology derive from these Assumptions.

To enhance clarity on issues just discussed, it is necessary to define what is meant by assumptions, worldview, and the relationship between worldview and culture. Dixon (1971) explains that assumptions are statements about phenomena that are accepted as valid without submission to tests of their validity. When, in the African worldview, it is stated that a spiritual force pervades the universe and is responsible for the dynamism characteristic of the universe and that the universe itself is an interdependent and interconnected edifice and thus communal, these are assumptions that are treated as valid without submission to test their validity (Carroll, 2008), Most worldviews, the African worldview included, are based on such assumptions and they act as powerful influences and constraints on a researcher's methodology. A research methodology, in part, refers to the assumptions a researcher brings to a research project, and the sources of these assumptions are the researcher's worldview. This is why worldviews are critical in the process of research and knowledge production (Carroll, 2008; Akbar, 1984). A worldview refers to the way in which a people make sense of their surroundings and make sense of life and of the universe. It is a product of a people's lived experience and constitutes

the lense through which the world of sense perceptions is reduced to describe fact (Carroll, 2008; Ani, 1994)

According to Nobles (1986) culture refers to a general design for living and patterns of interpreting reality. He observes that culture has two levels which can be distinguished; the surface structure which is the general design for living which is made up of a people's customs, habits, behaviours, etc., and the deep structure constituted by the patterns of interpreting reality. The deep structure/worldview is at the core of culture and must be clearly delineated and understood if one has to gain insight into the thought and behavioral modalities of a people. This is why the worldview of people is important in decisions centred on and around the theory and methodology to be deployed in research.

3.1.1 Afrocentric Research Methodology

Having decided to frame the entire research process with Afrocentricity, it was logical that an Afrocentric research methodology be deployed in approaches related to the collection, analysis, and interpretation of data. It is important to restate and emphasize that an Afrocentric methodology is an African culturally specific way of conceptualizing and conducting research on African people, in this case, the Dan community Limpopo Province. It is unwise to deploy Eurocentric research methodologies because Ba-Pedi and Vha-Tsonga of Dan village are not European. They neither define themselves as European nor live life as European. The assumptions which structured the methodology were derived from the worldview of the Ba-Pedi and Vha-Tsonga. It must be pointed out that although there are differences at the surface structure (general design for living) there are no differences at the level of deep structure or in patterns of interpreting reality, that is, in terms of the two group’s ontological, cosmological, axiological and epistemological orientations.

3.1.2 The Afrocentric Research Design

As pointed out in Chapter One, this study is exploratory. The research was conducted on a subject and problem which had previously not received any scientific investigation by scholars in the disciplines of the social sciences. The idea and focus of this exploratory investigation essentially involved preliminary data collection in order to tease out broad cultural notions and practices embedded in the IK and perceptions (Pellerin, 2012; Babbie, 2010). The research was

not designed to provide intimate and detailed descriptions of the phenomena as in descriptive research or identify the cause-effect relations of variables embedded in the phenomena as in explanatory research. The idea was to identify cultural notions which accurately depict their cultural descriptions and perceptions in their perennial attempts to eliminate malaria. The goal was to lay the groundwork for future descriptive and explanatory studies.

3.1.3 New Afrocentric Orientations for Collecting, Analysing, and Interpreting Data

The study deployed new Afrocentric orientations for collecting, analyzing, and interpreting data developed by Asante (1990) and Reviere (2001). These two scholars specify two basic principles that are intrinsic to African culture which determine these new orientations. These are Maat and Nommo (Asante, 1990; Reviere, 2001). Maat is the quest for universal justice, truth, and harmony. Carruthers (1984:56) observes that while "Maat is more often encountered in its ethical context, but as a conceptualization, it transcends the bounds of human interaction and becomes the foundation for cosmic direction". Maat, Africans observe, was coexistent with the creation of the universe. All human's endeavors, without exception, are supposed to be guided by Maat. What this implies is that even this current research exercise is supposed to be guided by Maat. To be specific, in the context of this research, it means the research exercise itself, in harmony with the researcher, being used as a tool in the pursuit of truth and justice. The goal of Maat, and thus of the research exercise, is to create a fairer and just society. This is the orientation that structured the collection, analysis, and interpretation of data.

Furthermore, the goal of the research was to establish and gain truthful knowledge about the problem under investigation so that the people who experience the problem may be empowered to resolve it. The issue about establishing truth in Afrocentric research is problematic as in other modes of research. In Afrocentric research truth is mainly governed by communal/collectivist values and ideals. It is not the researcher alone who determines what the truth about the experience of the people under investigation is, but the actual and aspired interests of the people who are the focus of research (Reviere, 2001). In fact, the participants, as a group and their aspired interests, based on their worldview and other aspects of their culture, constitute the source of truth about their lives. In the case of this study, it is the Dan community that is the source of truth.

Before data was collected and a data collection schedule was created, selected IK holders were consulted for their input regarding the issues and methods of investigation. In Afrocentric research, the power of decision on any aspect of research is shared between the researcher and participants/subjects. The people of Dan village were not treated as passive objects from whom data was/were extracted to be processed somewhere at a certain time without them. On the contrary, the participants were involved in each step of the process, all the way. As recommended by Afrocentric methodologists (Pellerin, 2012; Asante, 1990; Reviere, 2001), there was a communal/collective ownership of the entire research process. As Banks (1992) has also observed regarding the emerging African research methodology, the mind of an intelligent social-scientific researcher is not a well from which springs theory and method whole and well-formed; rather, it is from the aspired interests and priorities of the community of people that a research programme emerges to serve and sustain its survival and welfare. Truth is not some abstract phenomenon but concrete, contextual, subjective, and congruent with the lived experiences and ethos of the people concerned (Reviere, 2001; Pellerin, 2012). Truth is not simply a phenomenon spun out of the mind of the social scientist.

Justice as a crucial element of Maat, required that the researcher, consciously avoid creating, exaggerating, or sustaining divisions within the community but rather strive to create harmonious relationships within the Dan community (Pellerin, 2012). While participants were interviewed (conversation style) separately due to COVID-19 protocols, information/data acquired from one participant was shared with the other. This was done in the spirit of openness of procedure as well to avoid suspicion among participants. This was in line with the observation made by Reviere (2001) that the justness of research depends upon the procedures and openness of its application. Thus, the data collected was shared with all the participants.

Nommo, the other principle identified by Asante (1990), means the "productive power of the word". Basically, what this means is that insightful knowledge can create new relations in the sense of uniting and mobilizing people to act and behave in new ways. In the context of research, such as the current one, the researcher conducted in the community of Dan village, Nommo, “describes the creation of knowledge as a vehicle for the improvement of human relations” (Reviere, 2001:711). The goal of this research was to produce knowledge about the

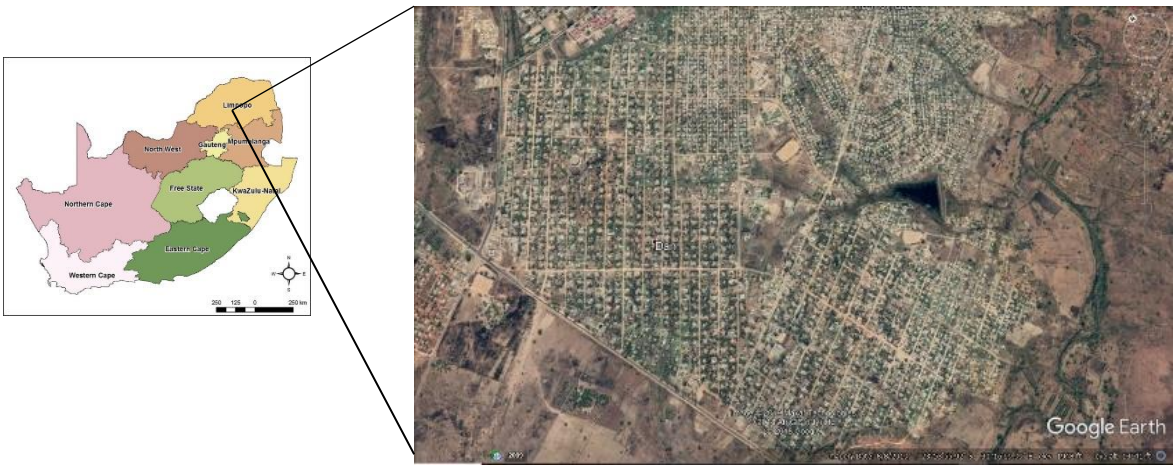
IK practices that would deepen theie victorious consciousness and motivate the actions of the people of Dan village in their efforts to control and eliminate the pernicious disease of malaria.

3.2 STUDY AREA AND POPULATION

3.2.1 Study location

The study was conducted in Dan village (Figure 3.1). Dan Village is found in the Greater Tzaneen Municipality under the Mopani District Municipality in the Limpopo Province. Dan Village is about 120km east of Polokwane (the capital city of the Province)

Figure 3.1: Location of Dan Village in Mopani District Municipality of the Limpopo Province of South Africa



(Source: Google Earth).

3.2.2 Study Population

Table 3.1 Population of the Dan Community

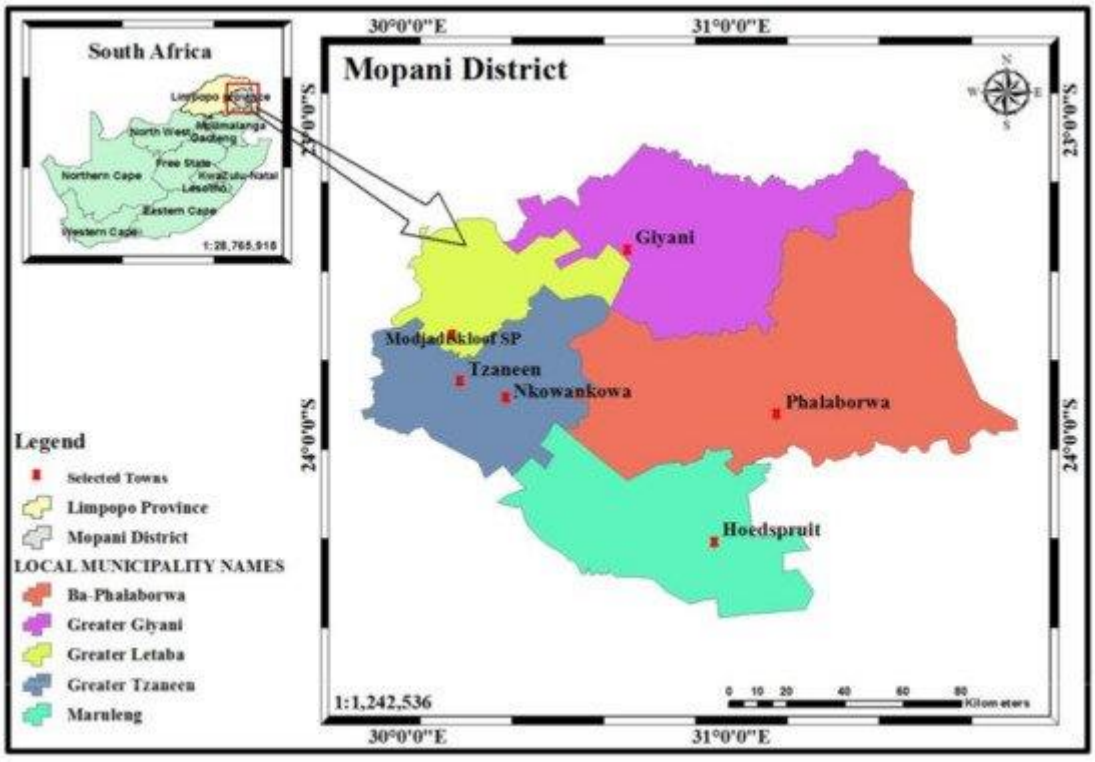
	Male	Female	Grand Total
0 – 4	1355	1368	**2723**
5 – 9	979	974	**1953**
10 – 14	1005	885	**1890**
15 – 19	1078	1048	**2126**
20 – 24	1071	1055	**2126**
25 – 29	988	1037	**2025**
30 – 34	863	834	**1697**
35 – 39	630	762	**1392**
40 – 44	557	568	**1125**
45 – 49	346	479	**825**
50 – 54	265	379	**644**
55 – 59	214	283	**497**
60 – 64	157	244	**401**
65+	292	658	**951**
Grand Total	**9801**	**10574**	**20375**

(Source: Stats SA)

3.2.3 Climate

Mopani District Municipality is a Category C municipality. It is located in Limpopo Province, the northern-most province in South Africa (**Figure 3.2**). The district comprises five local municipalities, namely, Greater Giyani, (district's administrative seat), Maruleng, Greater Letaba, Ba-Phalaborwa, and Greater Tzaneen. The municipality is on longitudes: 29°52′E to 31°52′E and latitudes: 23°0′S to 24°38′S, with 31°E as the central meridian. It covers 13,948.418 ha (10.2%) of the surface area of South Africa

Figure 3.2 Mopani District shows the local municipalities and the selected towns within the context of Limpopo Province and South Africa



(Source: Greater Tzaneen IDP, 2019).

Most parts of the Mopani District receive about 85% of its rainfall in the summer. The rainfall amount varies from the mountainous zones with about 2000 mm/annum to as low as 400 mm/annum in Kruger National Park, while the district's high mountainous zone experiences on the average temperature range of 21–25 °C in the dry low veld areas of Kruger National Park The population of Mopani District is increasingly becoming susceptible to the increasing incidences of extreme climate events of floods, drought, heatwaves, and the spread of climate-sensitive diseases. These are occasioned by high rates of unemployment and poverty, limited access to resources, and a high infrastructure deficit.

3.2.4 Vegetation

Dan community falls under the Greater Tzaneen Municipality which is in the Mopani district municipality. Greater Tzaneen comprises a land area of 3 240 km. The municipal area is characterized by extensive and intensive farming activities (commercial timber, cash crops, tropical and citrus fruit production); mountainous, inaccessible terrain in the west and south, and un-even topography (gentle slopes) to the north and east. There are areas with exceptional natural beauty and considerable untapped tourism potential (Bioregional plan for the Mopani district municipality, 2016).

3.2.5 Population and Sampling

The study population was made up of the African people of Dan Village. Diviners, herbalists and elderly men and women who have been living in the area for at least 20 years and are over the age of seventy constituted the sample. Dan community was selected as the study site given that it falls within the area labeled as malaria risk in Mopani District Municipality.

Purposive sampling was used to select a sample of 25 participants. The 25 participants were made up of 5 diviners, 5 herbalists and 15 elderly males and females in Dan village. Bryman (2012) points out that in criterion purposive sampling the sample units are selected because they have characteristics that will enhance the exploration and understanding of the aim and objectives of the study. The deviners and herbalists are AIK knoelwdge holders. In African culture, elders are deemed to have wide experience and knowledge of the major challenges that confront their communitites and are always consulted for solutions to those challenges (Asante, 2003). A list of the 25 participants was compiled with the assistance of local authority members.

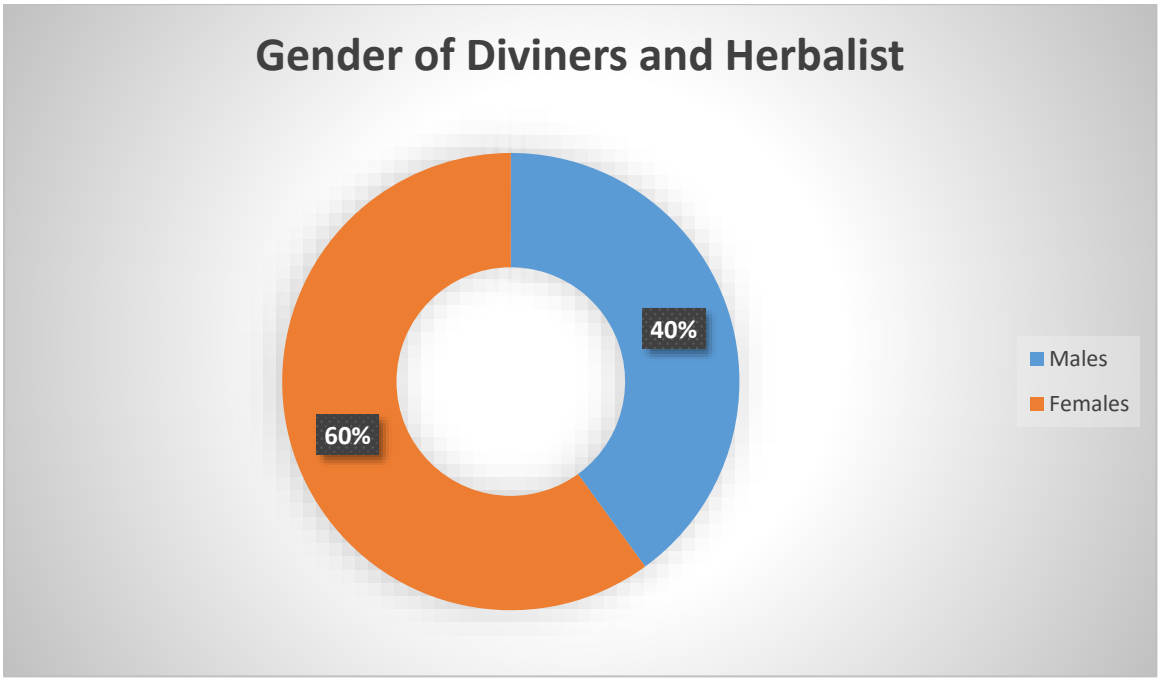
Table 3.2: Information on Participants

Participant number	**Position in the community**
Participant 1	Diviner
Participant 2	Elderly woman
Participant 3	Diviner
Participant 4	Herbalist
Participant 5	Herbalist
Participant 6	Herbalist
Participant 7	Elderly woman
Participant 8	Herbalist
Participant 9	Elderly woman
Participant 10	Elderly man
Participant 11	Diviner
Participant 12	Diviner
Participant 13	Elderly man
Participant 14	Elderly man

Participant 15	Elderly woman
Participant 16	Elderly woman
Participant 17	Diviner
Participant 18	Elderly man
Participant 19	Elderly woman
Participant 20	Herbalist
Participant 21	Elderly woman
Participant 22	Elderly woman
Participant 23	Elderly man
Participant 24	Elderly woman
Participant 25	Elderly man

(Source: Researcher's fieldwork)

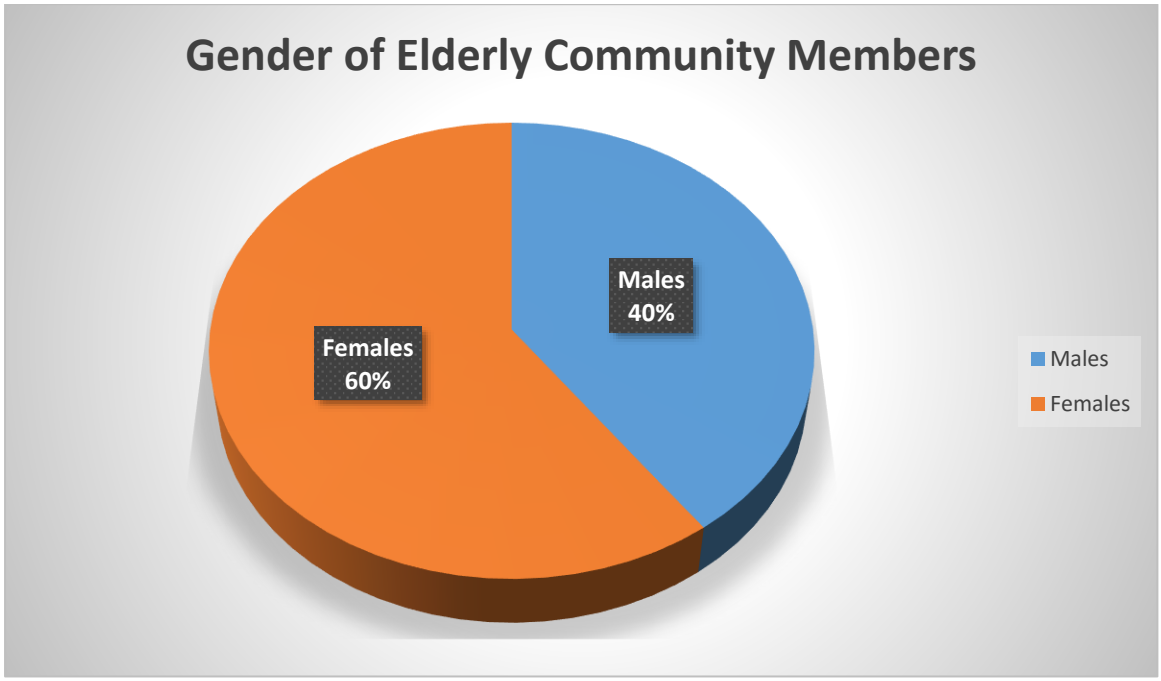
Figure 3.3: Gender of Diviners and Herbalists



(Source: Researcher's fieldwork)

Figure 3.3 indicates the gender of the specialists (diviners and herbalists) that were selected for the sample to the study. Sixty percent of the specialists were female and fourty percent of the specialists were males.

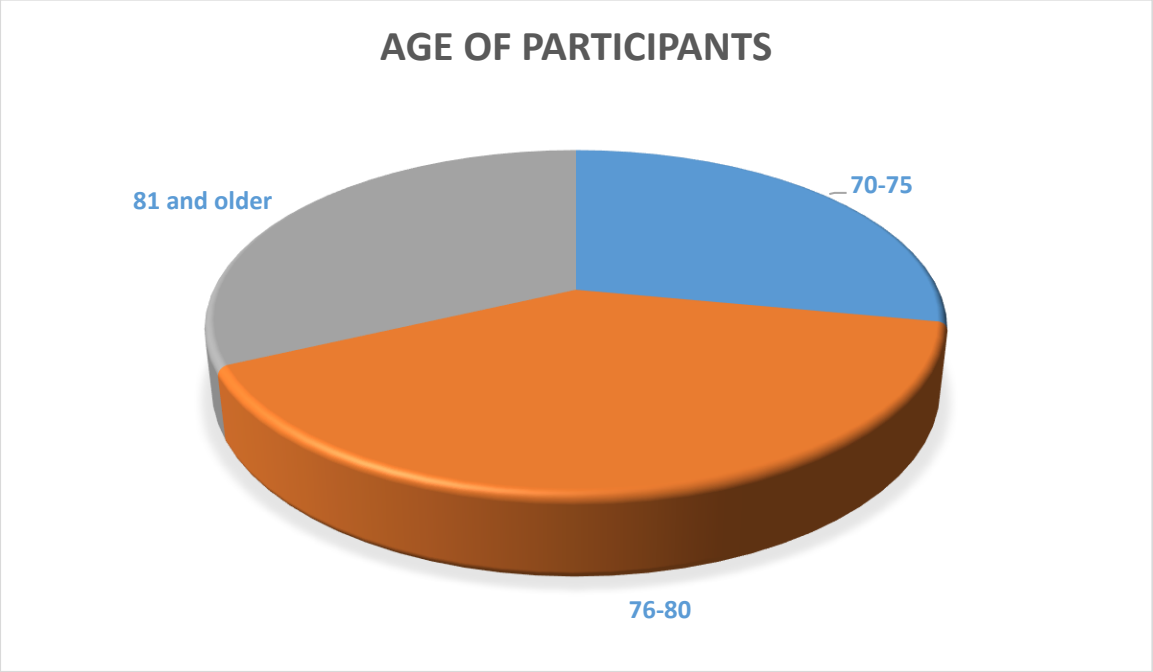
Figure 3.4: Gender of elderly community members



(Source: Researcher's fieldwork)

Sixty percent of the elderly community members were females and fourty percent of the elderly community members were males

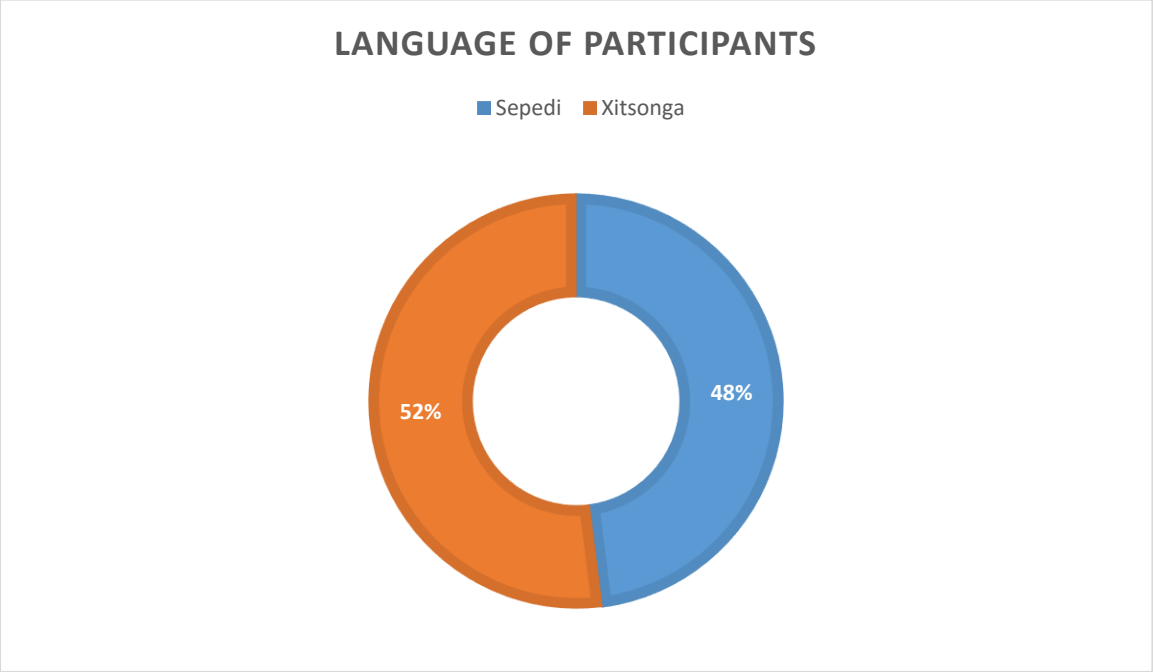
Figure 3.5: Age of participants



(Source: Researcher's fieldwork)

The age group of participants (both the specialist and the elderly citizens in the community ranges from seventy to over eighty years

Figure 3.6 Language of participants



(Sourse: Researcher's Fieldwork)

The community of Dan village is made up of a population that speaks Sepedi of Xitsonga or both. For the sample selected for the study, 52 percent of the respondents were Xitsonga speaking people while 48 percent of the respondedtswere Sepedi speaking.

3.3 Data Collection

3.3.1 Semi-structured interviews

Data was collected using semi-structured interviews. An interview schedule was developed and submitted for validation by community members of Dan village and the School of Social Sciences Senior Degrees and Ethics Committee to ensure that the instrument produces data that is reliable and trustworthy. The interviews were conducted in the local language of the respondents (Appendix B). A tape-recorder was used to record the responses of the participants.

Before starting with the process of primary data collection, the researcher first sought ethical clearance from the Turfloop Research and Ethics Committee (TREC) as standard procedure to be followed by researchers when conducting studies that require direct contact with human beings.

3.3.2 Data Analysis

Thematic Content Analysis (TCA) was used to analyze qualitative data. Braun and Clarke (2006) define TCA as a method used to identify, analyze and report patterns in the data. The process of thematic analysis involved reading through textual data, identifying themes in the data, coding, and interpreting the structure and content of the themes and sub-themes. The following steps were followed:

3.3.2.1 Data transcript

The first step in analyzing interview data collected involved the transcriptions of tapes. Literal statements were processed. Furthermore, significant non-verbal and paralinguistic communications were noted.

3.3.2.2 Listening to the interview records

The researcher listened to the interview tapes several times and read the transcriptions several times as well. This provided a context for the emergence of specific units of meaning and themes. The purpose of this step was to get a sense of the whole interview. After a sense of the whole of the interview as a context was internalized, then the reserarcher was ready to begin the rigorous process of going over every word, phrase, sentence, paragraph, and the noted non-verbal communication aspects in the transcript to elicit the participants' diverse meanings.

3.3.2.3 Delineating units of general relevance to the research questions

This step was the beginning of a critical phase in the explication of data. Once the units of general meaning were noted and established, the researcher addressed the research questions to the units of general meaning to determine whether what the participants said responded to and illuminated the research questions. In this way units of general relavence to the research qiestions were delineated.

3.3.2.4 Clustering units of relevant information

Once the researcher had the list of non-redundant units of relevant meanings, an attempt to bracket the researcher’s presuppositions and stay as true to the phenomenon as possible was made. The researcher also determined if any of the units of relevant meaning naturally clustered together.

3.3.2.5 Determining themes from clusters of meaning

At this stage, the researcher interrogated all the clusters of meaning to determine if one or more central themes expressed the essence of these clusters. The step addressed more of the relevant segments and clusters of meaning.

3.3.2.6 Contextualisation of themes

After general and unique themes were noted, the researcher placed these back within the overall contexts or horizons from which they emerged. The horizon was essential in understanding the phenomenon as the role that the phenomenon plays within the context is one of the determiners of the meaning of the phenomenon. The researcher started writing a composite summary of the interviews accurately capturing the essence of the phenomena that were being investigated.

3.3.2.7 Emerging tthemes

The following themes emerged: embeddedness of the person/patient and healer in the sacred universe; unity of the spiritual and the physical/biological in conceptualising health and disease; ancestral involvement in health and disease; the unity of the physical and spiritual in the indigenous cure of malaria; herbs as embodying the spiritual energy to counter the life threatening *switsongwa-tsongwana* (germa)*;* indigenous knowledge and methods prevention the negative impact of western medicine on indigenous health practices; cooperation with western medicine; Ubuntu-based values in the effective control and elimination of malaria.

3.4 Quality criteria

3.4.1 Ensuring Credibility

Credible study results were ensured by collecting data from Dan community members only. The participants to this investigation comprised diviners, herbalists and elderly males and females in the Dan commun ity who had knowledge about the use of IK to effectively control and eliminate malaria. The participants were selected purposively because the study's interest was IK and perceptions about malaria.

3.4.2 Transferability

The researcher ensured that the context in which the study was conducted was fully described. This included the description of the location of the place, status within the municipality, climate and vegetation. Both the population and sampling were accurately described.

3.4.3 Trustworthiness

The researcher ensured this by audio-recording the interviews as well as taking field notes during the entire data collection process.

3.5 Ethical Considerations

The following ethical aspects were considered:

3.5.1 Informed consent

The participants were fully informed about the nature and objectives of the study. The researcher explained the reasons behind the investigation to the participants and fully outlined the role of the participants in the study. The participants were asked to read and sign the consent form (Appendix B) to confirm their willingness to participate.

3.5.2 Voluntary participation

The researcher did not force any participants to participate. It was the right of the participants to withdraw from participation at any time. No pressure was placed on those who choose not to take part in the study.

3.5.3 No harm

The researcher ensured that the cultural values and ideals of the Vha-Tsonga and Ba-Pedi which the researcher knows very well were not in any way violated, trivialised and disrespected.

3.5.4 Confidentiality and anonymity

The participants' identifying information was not made available to anyone. No names and identity documents were requested during the interview process.

3.5.5 Privacy

Agreements were made with all the participants that the information provided will not be shared with anyone. No one would have access to the information they provided. All the information which was tape recorded is under lock and key in the researchers private office. All the field notes which were made during the investigations are kept safe in the office which is inaccessible to anyone.

3.6 Conclusion and Insight

The research on the use of IK and perceptions on malaria for the purpose of improved control and elimination of the pernicious disease in the Dan community in Limpopo Province deployed an Afrocentric research methodology based on assumptions rooted in the irrefragable African worldview of the Ba-Pedi and Vha-Tsonga. In the light of this culturally specific research approach, some fundamental governing cultural principles guided and structured the collection, analysis, and interpretation of data. The following were the principles that governed the research process:

- The worldview of the people of Dan village is African as manifested in their ontological, cosmological, axiological, and epistemological orientations. It is in fact, this worldview which underpins their IK and perceptions and thus defines what constitutes a problem for them and how the problem or a problematic situation is resolved. Given this cultural reality, the researcher insisted that Maat and Nommo (Asante, 1990) critical cultural notions/principles intrinsic to African culture where ever it is found and must drive the research process.
- The human being- the Mo-Pedi and Mu-Tsonga- is essentially spiritual. This does not, however, mean the neglect of the material dimension or aspect of life; but it is to acknowledge that matter is spirit manifest. This research reflected the importance of the spiritual, the oneness of matter and spirit and the interconnectedness of all things.
- Jettison the traditional Eurocentric criterion of objectivity- creating distance between the researcher and researched- because it creates a dichotomy between the researcher (subject) and researched (object) violating African ontological and cosmological principles of the unity of being.
- Grounding the research in the specific experiences and values of the Dan community. Community participants and by extension the entire Dan community were treated as the ultimate authority in determining what is true and are the final arbiters of the validity of the research on their problem. Community members are necessary for the verification of knowledge claims.
- Co-ownership of the research process and outcomes between the researcher and the community.
- Avoidance of research procedures that create and sustain divisions and antagonism and work to create harmony in the community.

- The final guiding principle involved the avoidance of the pernicious trap of epistemological racism (Scheurich & Young, 1997). Epistemological racism is a category of racism which emerges when researchers of African problems deploy methodologies that have, for instance, developed in the social histories and experiences of Europeans. Instead, epistemological centeredness (Mazama, 2003; Axibo, 2018)) was adopted as an overarching guiding principle of this investigation. This involves deploying methodologies and concepts developed by the Dan community in their efforts to deal with the intractable and pernicious problem of malaria.

CHAPTER 4
DATA PRESENTATION: USE OF IK AND PERCEPTIONS ON MALARIA IN CONTROL AND ELIMINATION OF THE DISEASE

4.1 Introduction

In the previous chapter**,** the methodology including the research design which guided this investigation were described. It was clearly stated in that chapter that an Afrocentric research methodology and an exploratory design guided the investigation. This epistemological position as well as the exploratory nature of the investigation, to a large extent, influenced the researcher's ideation and conceptualisation regarding the nature and quality of the data to be collected. First, the data had to be African –centered. Therefore, the focus was on acquiring data that represented and manifested the patterns of interpreting reality that derive from the worldview/deep structure of the culture of Ba-Pedi and Vha-Tsonga of Dan Village. Thus in searching for data, the researcher had to be wary about and discriminate between alien European intrusions and African indigenous knowledge as they relate to malaria, health, illness, cure/treatment and prevention.

The exploratory dimension of the investigation involved teasing out broad cultural notions, understandings and dispositions embedded in the indigenous knowledge and perceptions of the Ba-Pedi and Vha-Tsonga about malaria and related health issues. The study, it must be emphasized, was neither designed to provide intimate and detailed descriptions of these phenomena nor cause-effect relations between variables embedded in the phenomena. In other words, the investigation was neither descriptive nor explanatory but exploratory. The research sought to acquire culturally African-centred data which would provide a base for future descriptive and explanatory studies.

The data presented in this chapter was acquired from two categories of participants: indigenous professional health care practitioners such as diviners and herbalists and elderly men and women in the Dan community who were deemed to possess cultural knowledge about malaria by virtue of their long experience and residence in Dan village. The researcher was able to access data from ten professional indigenous health care practitioners (five diviners and five herbalists) and fifteen elderly men and women (ten women and five men) over the age of seventy. Refer to Table 1 for information on the profiles of participants.

Two different sets of data are presented. The first set of data collected from the participant professionals on the following issues related to malaria and related health issues: worldview and initiation to indigenous professional practice; spiritualistic energy and spirituality; concept of health, disease and illness; life and death; role of ancestors in health and disease; relationship between the invisible spiritual world and the visible world in health and disease; spiritual causes, cures and prevention, non-spiritual cures and prevention; knowledge of prevention and control impact of western medical knowledge and practices; attitude of the Dan community towards indigenous health practices; co-operation with western knowledge systems; the second set of data collected from the elderly participants focused on the following issues; epidemiology of malaria; perceptions and attitudes towards professional indigenous health care practitioners; consultation preferences; knowledge of prevention; attitudes about the efficacy of co-operation of indigenous knowledge holders and western medical practitioners; and view on the possibility of elimination of malaria.

4.2 Professional Indigenous Health Care Practitioners- Diviners and Herbalists

4.2.1 Worldview and Initiation to Indigenous Professional Practice

The issue about what is entailed in the indigenous worldview of the Ba-Pedi and Vha-Tsonga as this relates to questions about human existence and purpose of life in general and how this worldview relates to questions of health and disease in particular assumed an overarching framework within which participants responded to specific questions on the use of indigenous knowledge and perceptions on malaria in the improved control and elimination of the disease. This is not surprising because a worldview entails the way a people make sense of their surroundings, make sense of their life and of the universe (Ani, 1994; Carroll, 2008). The diviners and herbalists in Dan village expressed a worldview that naturally gave them a sense and meaning of the cultural importance significance of their professional practice in the community. A seventy-year-old *Mo-Pedi* diviner (Participant 1) responded to the cultural importance and significance of the African worldview as follows:

> "*Let me give you my well-considered view. We Africans live in a world that is very sacred… Life itself is not ordinary… it is sacred. A human being is a sacred being brought into this earth by Modimo-God to bring good and harmony in the wirld. I, as a diviner, was given spiritual gifts to bring*

health and harmorny to ensure that any spitual forces that threaten the peace of this community are eliminated. This is the core meaning of my professional practice."

Prompted to elaborate on the issue of harmony and the need to preserve it. He responded in the following way:

"Let me explain what I mean this way. The world/ universe was created by Modimo like an interconnected web… very beautiful… you understand. As such, if you touch one string, the whole web vibrates in harmony. If one string breaks the whole web loses order… becomes disordered… becomes unhealthy. There is interconnection. If a few people in our community fall sick… ill, we as diviners, have to use our spiritual gifts to identify the nature of the problem and restore order and harmony"

An eighty-year-old Xitsonga speaking female herbalist (Participant 6) expressed her worldview and professional practice in terms of *Vumhunu/Ubuntu* African spiritual peoplehood. She had the following to say:

"I was initiated into my profession not simply to treat disease such as the malaria you referred to in your introduction. When you cure malaria… is that not an expression of Vumhunu; The expression of the fact that I view my knowledge of herbal cures as not really mine alone but a gift from God to bring about harmony and a healthy togetherness in the community. I cannot be healthy if you are not. This is not about the money that a patient pays for treatment… sometimes we offer free treatment. This is about our spiritual mandate from Xikwembu-God to ensure communal health and positive interpersonal relations in the

community. Our world was created by God as a communal world. We must preserve it"

The journey to become a professional indigenous healthcare practitioner is also viewed as sacred. A diviner (Participant 12) made reference to spiritual selection:

"The first step to become a diviner is that you need to be selected by the ancestors… selection is on the basis of the way you live life and the ability to help, love and respect people. There are also sacred rituals … spiritual cleansing rituals… rites of passage that one needs to go through before you become a complete healer. A ritual that I went through … eh… my body was washed with the blood of an animal and then water from a sacred stream… Recite a sacred oath of diviners. I was made pure, ready to receive messages from the spiritual world to the living… messages which explain what needs to be done to restore health and harmony within the individual; and the individual and his/her community. Remember that the malaria you are referring to causes disharmony not only in the ill person but also in the family and community"

A respected and trusted *Mo-Pedi* female herbalist (Participant 5) also made reference to the integration of both physical/material and spiritual aspects and dimensions in her journey to become a professional:

"Growing up as a young girl in the village, I never expected that one day I would become a respected herbalist… interestingly I admired the modern nursing profession. From the age of about sixteen… inexplicable afflictions/ailments, and dreams in which some strange woman would call me but would suddenly vanish haunted my life. A diviner we consulted indicated that I had a

spiritual calling to become a herbalist. I was placed under the guidance of a professional herbalist who initiated me into the practice… involving, among other things, I cannot reveal, identification of, processing and application of herbs in treatment… To become a herbalist you have to be familiar with the do's and don'ts of your culture… taboos… regularly propitiating ancestral spirits to stay on course…"

What emerges, considering the above, is that diviners and herbalists in the Dan community are rooted in a distinct African indigenous worldview which provides them with a sense of what is real and knowledge of how to proceed when confronted with problems. They all refer to the sacredness of the universe as well as the African indigenous health care systems' spiritual mandate to bring about health and harmony in the community. Their indigenous knowledge and perceptions of any disease are an integral part of their African indigenous worldview. The indigenous healthcare system is African worldview-specific. The African worldview/reality structure that foundation and parameters within which their identity, function purpose, health and disease are conceptualised and operationalised.

4.2.2 Spiritualistic Energy and Spirituality in Health and Disease

Data was also collected on the specific nature and role/function of African spiritualistic energy/spiritness and spirituality in the indigenous health care system of the *Ba-Pedi* and *Vha-Tsonga* particularly as this health system relates to the effective control and elimination of malaria. The issue pertaining to what is spiritualist energy and spirituality; and how these phenomena were connected to and influenced the indigenous health delivery system in tackling the issue of disease and health in general and malaria, in particular, were the most complex, time-consuming and difficult to explain and grasp. The data presented on these two phenomena are the participants' own summarised views after complex and abstract dialogues on these two phenomena. A *Xitsonga* speaking male diviner (Participant 11) had the following to say on spiritualistic energy/ spirit/ soul:

"What we call life is essentially spirit or spiritualistic energy given to each person by Xikwembu (God). It is a portion of God's own spirit. We all share the same spirit.

Our physical bodies and our thinking/minds are instruments/the means by which the spiritualistic energy achieves… fulfills its desires. Our bodies and thinking have to be in a prime condition to carry out the mandate of the spirit. If our bodies and thinking/minds are weakened and destabilised by the introduction of hostile microorganisms which causes malaria, the spirit itself is weakened… does not function as it should, this is illness. Disease."

An eighty-year-old *Mo-Pedi* female herbalist (Participant 4) expressed a view similar to the above but added the following:

"It is this spirit and energy which makes us feel an inner connection with others… allows and enables us to communicate with our Creator/God and nature. Remember that nature-trees, animals… the environment which surrounds us has this energy also but is weaker… not as powerful as ours. Spirit, body and mind are interconnected. If for some reason, anyone of these is disturbed, the others are also disturbed. A mosquito bite which you referred to, by injecting harmful micro-organisms into your body disturbs the spirit and mind also. This is tantamount to disease, ill-health. My herbs have the energy to counter… and eliminate the harmful organisms and thus restore the spirit and mind to function as mandated by our Divine Creator."

A seventy-five-year-old *Mo-Pedi* diviner (Participant 3), simply described spiritualistic energy as the substance of life. He insisted that without spiritualistic energy, there will be no life:

"Our healing, treatment, curing are in the final analysis our way of ensuring that our patient's spirit is restored to the condition or state in which the patient initially received it from the Creator. In curing malaria we are protecting and

strengthening spiritualistic energy which is the substance of what we call life. Our healing is thus holistic in nature. We view the curing of disease as a form of spiritual healing. This is our core foundation."

In discussion centered on spirituality, there were instances when spiritualistic energy and the latter-spirituality-were conflated. However, a female *Mo-Pedi* diviner (Participant 17) was aware of the distinction between spirit and spirituality:

"Human beings as we have noted are spirit beings… we share the same substance. We are the same. Spirituality emerges out of this… means that we have to care for one another, respect each other, and be our brother's /sister's keeper. The African adage: I am because we are and since we are therefore I am. This is the substance of our spirituality as Africans. I am saying Ubuntu is an expression of our spirituality."

On the connection between health and spirituality she said:

"A community devoid of Ubuntu is unhealthy. A community in which people do not care for each other is not a healthy community. The lack of care… caring for each other means that people no longer experience any inner spiritual connection with each other. This is an expression of lack of health in the community."

Generally, the specialist participants (diviners and herbalists) in Dan village view spiritualistic energy as life itself. A human being is defined by his/her spiritness. The body and mind/thinking/thought are vehicles or instruments by means of which spiritualistic energy fulfills its desires. Anything that disturbs, destabilises the body and mind causes spiritualistic energy unable not to function properly. At its prime. It is important to realise that body, mind and spirit are inseparable. Spirituality, from their perspective emanates from this spiritness and manifests itself at the level of behavior and thought in the form of people who care for

each other and respect each other, and protect each other. Diviners and herbalists by ensuring that diseases are cured, controlled and eliminated; manifest spiritually which is rooted in their spiritness.

4.2.3 Role of Ancestors in Health and Disease

All specialist-participants spoke to the crucial role of ancestors in the creation and establishment of community well-being and health. The presence of ancestral spirits in their daily lives and in all areas of people activity was expressed with such certainty that the notion of their invisibility seemed not to make sense. They spoke about them in a manner that tended to strip off the cover of invisibility and make us see them directing the affairs of the living. A respected *Xitsonga* speaking male diviner (Participant 1) spoke about his relationship with his ancestors this way:

> *"There is nothing of importance that I do or engage in without praying for the direct intervention of the ancestors. I know the ancestors are present always and ready to help me. This is specifically the case in divination sessions. Let me say this: I cannot conceive of life without foregrounding ancestral power, protection and guidance. As I am talking to you now… at this moment… I feel the presence and power of my ancestors. This is why every moment… every day I ensure that my relationships with my ancestors are in prime condition. If I do not do this chaos, disaster and disease will invade my life. The ancestors may even punish me"*

On the question about the relationship between ancestral spirits and disease/illness and in particular malaria, he provides the following explanation:

> "*Ancestors do not direct disease-causing insects… mosquitos, for instance, to bite and inject, micro-organisms into your body. My main focus as a diviner when a patient presents, is first to find out the patients's relationship with his/her ancestors. A person with cordial relations with his/her ancestors is also deemed to be possessed with a*

frame of mind and behaviour which take precautions that the environment in which they live on a daily basis is not infested with mosquitoes. Ancestors, when they are constantly propitiated, revered and respected become happy. They provide you spiritually with that sense/mind to ensure that you protect yourself. But, when there is a lack of recognition, reverence and respect for ancestors, there is a disconnection with ancestral spiritual power. The person thus disconnected loses a sense of balance, is in confusion… does not really care about self and others… does not really bother about their environment which may be infested with disease-carrying mosquitoes, and other insects. A person suffers from this confused and chiaotic frame of mind because he/she is disconnected from ancestral spiritual inspiration."

Asked to comment about the cultural notion of ancestral punishment that may lead to illness, he said the following:

"Ancestors are not vindictive and cruel. They want their children to prosper and live healthy lives free of disease. But, when you disconnect yourself from them through your non-recognition of their spiritual presence and power you deny yourself the benefit of their wisdom and protection. You fall sick… The fault is yours. You bring the punishment of sickness on yourself. They are unable to protect you because you have moved away from their protective spiritual shelter"

The wisdom expressed above by the diviner about the ancestor's role in health and disease was also expressed by herbalists. Typical of the herbalists' view was the position expressed by a male *Xitsonga* speaking herbalist (Participant 8) who had the following to say:

> "*If you do not maintain cordial relations with your ancestors the energy which is present in the herbs is not likely to be effective in eliminating the disease. What is needed is the cooperative and combined presence of ancestral power and the energy in the herbs. Thus when we apply herbs we appeal to the ancestors of the patient to accept the herbs and allow the treatment to proceed"*

What we get from the specialists is the cultural notion of the direct involvement of ancestral power in the promotion of health among the living. We also get the notion that disconnection from the ancestors through failure of the living to propitiate the ancestors to intervene in their daily lives opens the way for disease to invade the lives of the living which leads to illness.

4.2.4 Spiritual and Non-Spiritual Causes of Diseases and Cures

Apart from the notion that the failure of the living to revere the ancestors opens the way for all sorts of diseases, the role of witches and similar evil spirits in ill-health was raised. The question was: does witchcraft have anything to do with the onset of a disease such as malaria? This question turned on the herbalists and diviners providing explanations that centered on the power of witchcraft and other evil forces to disrupt a community's ability and capacity to organize itself for the promotion of healthy behaviour. A typical response to this issue was the view of a female *Mo-Pedi* diviner (Participant 17):

> *"When a community is stable, peaceful and living in accordance with the values and ideals of Ubuntu, this creates a social and cultural shield against disease. Ubuntu promotes patterns of behaviour and social orientations within the community which, among other things, prioritise the protection of health. Witches and their craft negate the values and ideals on which Ubuntu is based. Witchcraft destroys the integrity of a community… promotes hatred, conflict, disharmony. It is in conditions such as these that diseases, including malaria, thrive. Thus witchcraft impacts negatively on a community's capacity to defend itself".*

A female sixty-five-year-old herbalist (Participant 8) added the following:

> *"We as an African people know that mosquitos cause malaria, we know the social and environmental conditions in which mosquitos breed and know how to control and eliminate such conditions. However, what is required to utilise this knowledge is a community that is united and based on care, respect for human life. This unfortunately is what witches and the like evil forces strive to negate. Witches undermine a community's capacity to promote health"*

All the specialist professional indigenous health care practitioners expressed the view that Africans, particularly diviners, have developed spiritual approaches to counter the power of witches. Divination, in which diviners access the spiritual realm to identify witches and neutralise their negative power, is deemed to be the most effective approach. The wearing of amulets and other objects which have been treated and strengthened with spiritual counter-powers are also methods that have been developed. Diviners also made reference to protective/preventive oils and substances deriving from particular animal parts and species of plants which have the power to negate the power of witchcraft. Furthermore, diviners and herbalists made reference to the protective shield of ancestral spiritual power. Witchcraft is powerless in relation to a person under the protective shield of ancestral power.

The non-spiritual treatment and cure of disease involved; mainly, knowledge and application of medicines prepared from particular animal parts and herbs. All herbalists and diviners have knowledge about malaria. Malaria, herbalists noted, can be cured with the energy in plants such as the *Morula-tree, lengana, mosunkwane and Serokolo.*

4.3 Medicinal Plant Species Used in the Prevention and Treatment of Malaria

4.3.1 Indigenous plant-derived medicine administered to cure malaria

The diviners, herbalists and elderly men and women of the Dan village have identified 4 (four) medicinal plants used to prepare indigenous medicine to administer for both malaria prevention and cure. The plants are collected in the nearby wild and are mostly available during the rainy season. The plants are not only known by traditional health care practitioners (diviners and herbalists). Elderly male and females in the community also have knowledge of how to use the mentioned indigenous medicinal plant species in the prevention and treatment of malaria. The plants were identified during transact works with the participants (diviners, herbalists and elderly males and females in the community). Each of the plant's botanical information and use to treat malaria was captured. The plat photos used in this study were captured by the researcher when he was in the field collecting data. The plants were assigned identification numbers and codes as they were identified by participants.

Species 1: Mosunkwane (*Lippia Javanica*)

Species number: MK1

Figure 4.1. Mosunkwane (*Lippia Javanica*)

Mosunkwane is a woody shrub that stands erect. It is also a multi-stemmed plant. The stems of the plants have a square appearance when observed under close observation. In appearance, the leaves look a little bit hairy with certain lines in them that look like veins. When crushed, the leaves of the plant have a very strong smell that is like the smell of lemon. The community members of Dan village see the plant as one of the most aromatic plants found in the area, which is the reason the plant is used for both the prevention and treatment of malaria. The aromatic plant can be found all year round, however it is found in abundance during the rainy season which is from spring to autumn.

The plant species is well known by both the indigenous health care practitioners and community members of the village. This is mainly because of the medicinal value of the plant. Different parts i.e. the leaves, twigs, and sometimes the roots of the plant are used for different reasons and the treatment of different ailments. The strong aroma of the plant is used for the prevention of mosquitoes. The smelly leaves are rubbed against one another to multiply and

increase the smell. The leaves are then placed next to where they sleep. The participants have reported that the smell of the plant is too strong that it prevents mosquitos from flying around them.

The plant is also used to treat symptoms such as fever and vomiting which are strongly associated with malaria. The roots and the leaves are boiled. The boiled water mixed with the leaves and roots of the plant is drunk by victims to treat symptoms such as fever and vomiting. The herb is believed to be very effective in the fight against influenza and measles in addition to malaria. The leaves of the plants can also be burned, the smoke produced from the leaves is also used to prevent mosquito bites

Species 2: *Serokolo* (*Siphonochilus aethiopicis)*

Species number: MK2

Figure 4.2. Serokolo (*Siphonochilus aethiopicis)*

The plant wild ginger is generally a wild plant that has very aromatic roots. The leaves of the plant are normally easily identified and mostly found during spring. The plant is generally very short in height, of about 40 centimetres from the ground. The leaves are generally very light green in colour, lance-shaped, and borne of the end of stem-like leaf bases. The flowers of the plant generally bloom between October and February, during the rainy seasons.

The plant species has a variety of both medicinal and traditional values to the community members of Dan village. For medicinal value, the rhizomes and the roots of the plant species are chewed fresh to treat the following illnesses: malaria, asthma, hysteria, colds, coughs, and flu. The plant is planted at the homes of the community members. The planting in homes protects against lightning and snake attacks.

Species 3: *Lengana (Artemisia afra)*

Species number: MK3

Figure 4.3. *Lengana (Artemisia afra)*

Lengana is in appearance a very thick, bushy, very untidy clump. The plant species will generally have very tall stems that are at times over 2 meters high. The stem of the plant tends to be very thick and woody right at the base and it grows thinner towards the top. The soft

leaves of the plant are finely divided almost looking fern-like. In colour, the plant has two different colours on its leaves. *Lengana* is known by the diviners, herbalists and elderly men and women in the population of the Dan community to be one of the oldest medicinal plants in the community. The plant species is used to treat a variety of illnesses. The following are the ailments treated by *Lengana:* malaria, coughs, colds, fever, and loss of appetite. Most of the ailments that are treated by this plant species share most of the symptoms with malaria. This is one of the reasons this plant is perceived to be one of the most effective plants in the treatment of malaria.

Species 4: *Morula* (*Sclerocarya aethiopicus*)

Species number: MK4

Figure 4.4 *Morula* (*Sclerocarya aethiopicus*)

The *morula* tree is another plant species that is used in the fight against malaria in the community of Dan village. The tree in appearance is a medium to large-sized deciduous tree. The plant has several values for the community members of Dan village. The morula fruits when fresh can be used to brew morula wine and can produce morula nuts when dry. The morula is a tree that is commonly found in the Limpopo Province, mostly in the area of the greater Mopani district municipality. This is the same place where Dan village is located.

The plant species, like other medicinal plant species used in the treatment of malaria, has several uses for the community members. The powdered bark is used by pregnant women to determine the gender of an unborn baby. In cases where the pregnant woman want to have a girl, she will take preparation from the female plant, and to have a boy child she will take the preparation from the male one. A decoction of the bark treats dysentery, diarrhoea, rheumatism and has a prophylactic effect against malaria. The bark is an excellent remedy for haemorrhoids. Roots and bark are also used as laxatives. A drink made from morula leaves is used for the treatment of gonorrhoea. Sometimes one finds a tree with a wound, probably caused by a traditional healer or someone who collected material for medicinal use.

4.4 Knowledge of Malaria as an Illness/Disease

The diviners and herbalists in the Dan village describe and view malaria as one of the most prevalent and pernicious diseases that people in the village contract and suffer. More often than any other disease, the people who fall ill are diagnosed with malaria. In fact, when ill, the first and number one suspect is malaria, particularly during the hot and humid conditions of the rainy season. Both the *Ba-Pedi* and *Va-Tsonga* have names descriptions for the disease which indicate the dread with which the disease is perceived in the village. One *Mu-Tsonga* herbalist, (Participant 5) who suffered from malaria in his youth; before he became a practising herbalist characterised malaria as follows:

> *"Malaria was… has been and continues to be the scourge of the village. The disease has dogged us… pursues us like a cruel curse which refuses to go away…as if we have wronged and been abandoned by Swikwembu (ancestors) and Xikwembu (God). What evil spiritual force is responsible for this scourge? Yes we know that irritating bites of Tinsuna (mosquitoes) injects switsongwa-tsongwana (germs) into our bodies. I, as a herbalist, use the energy embodied in the herbs to both prevent onset of the disease as well as cure it. But the pain of malaria continues to haunt us. The Swikwembu (ancestors) and Xikwembu (God) seem to be saying to us 'your knowledge is not sufficient to combat the dreaded disease'. Is there a dimension of malaria which is hidden*

from us? What key? What spiritual force is needed to open the door of knowledge so that we can be free from this curse?"

A diviner (Participant 3) who was born in the village and is famous because of his ability to expose and resolve mysterious witchcraft cases and has been nicknamed *"mahlo a Modimo"* (the eyes of God) commented on malaria as follows:

"Our badimo (ancestors) and Modimo (God) have gifted us with the knowledge and spiritual power to see many hidden evil forces and combat them… neutralise them…It is however strange that we have not been blessed with the wisdom to eliminate both the Boswina (germs) and its ditwatsi (germs) which cause letadi (malaria). Is this the way Modimo (God) is tellimg us we are not yet in full control of our lives and circumstances? What is it that we must do to eliminate this pernicious illness? Modimo o lapile (God is tired). O lapiswa ke mang? (Who has made God tired?). ke rena?(is it us?) Are kgopeleng bohlale le mogau wa modimo (Let us ask for more knowledge and Gods mercy)

The diviners and herbalists are certainly knowledgeable about the source of malaria. Their language which reflects their culture has names /terms for the mosquito, the disease, and the germs which trigger the disease. However, they also locate these physical/material causes within a spiritual realm. It is within that context that the continuation of the disease despite the accumulated knowledge makes sense. Knowledge of the scourge/curse of malaria acquires meaning at the intersection of the visible material world and the invisible world of the ancestors and God.

4.5 Symptoms of Malaria

The current diviners and herbalists make reference to knowledge about malaria and its symptoms as originating in the experiences and efforts of past generations of ancestor diviners and herbalists. This knowledge which the current diviners and herbalists acquired during their initiation to their profession, is a product of oral transmission. The chain of transmission is from diviner to diviner and from herbalist to herbalist using concepts and a formalised language which encodes the Africa worldview. Specialised terms to describe symptoms have emerged over generations based on meticulous observations of patients as well as intimate diagnostic conversations with clients.

Ba-Pedi participant herbalists and diviners spoke in unison with reference to the following as common symptoms of malaria: *go fiša le go hlaka-hlakana ga mmele* (fever), *go opa ke hlogo ka kudu* (non-stop headache that is like migraine) *go kwa bohloko mmeleng* (joint pains), *go phela o tsenwa ke phefo mmeleng* (feeling cold many times) *go sellega* (nausea), *go hlatša* vomiting, *go tšhologa* (diarrhoea), *go se dume dijo* (loss of appetite), *go felelwa ke maata mmeleng* (body weakness), *go dikuluga* (delirium) and *go fiša kudu mmeleng* (very high body temperature.

Xitsonga speaking diviners and herbalists did not differ from these. Their confirmation of the diagnostic symptoms identified by the *Ba-Pedi* speak to the existence of a fairly standardised/formalised knowledge/understanding of malaria and its symptoms among indigenous health care practitioners

4.6 Knowledge of Prevention and Control of Malaria

Data was also generated on the knowledge of the practical prevention and control of malaria. The issues of prevention and control were interlinked. However, control tended to also be conceptualised in terms of reducing transmission from person to person. This level of conceptualisation brought to the fore the issue of integrity of the collective personality of Dan Village as well as the transpersonal ontology coded in the common deep structure of the culture of the *Ba-Pedi* and *Va-Tsonga*. A seventy-two-year-old *Mo-Pedi* male diviner

(Participant 12) provided responses on questions of prevention and control which were typicall of all the diviner and herbalist participants:

> *"Let us start with prevention… preventing mosquitos from coming into contact with humans… keep them at bay…away. The leaves of mosunkwane wgen rubbed against one another produces a strong oedor which keeps mosquitos at bay. You put them in the room where you sleep… when you sleep… close to your bed or mat. Burning the dry leaves of mosunkwane produces smoke which keeps mosquitos at bay. You can also burn dry cowdung in your compound… at edges of your compound. The smoke keeps mosquitoes away. However, the most effective way is to keep a clean environment… healthy environment. Do not allow accumulations of dirt to get rotten in and near your compound where mosquitoes can breed. Stagnant pools of rainy water must be drained. Keep the grass in and next to your compound short. Breeding places and envoronments must be eliminated."*

A seventy-eight-year-old *Xitsonga*-speaking female herbalist spoke to the importance of predicting the onset of the mosquito-rainy season which allow people to institute malaria prevention measures like those mentioned by the *Mo=Pedi* diviner. She spoke as follows:

> "*We know the mosquito-rainy season is coming when some perculiar changes in the flora emerg. Rare insects appear… wild animals you do not normally encounter begin to appear and move around. The natural universe tells us… communicates to us that the rainy season is on the way… the dreaded malaria disease is coming,,, institute preventive measures… strebghthen your body's resistance to disease… immunity yes… through; inter alia, taking/drinking medicine prepared from boiled*

leaves of mosunkwane, boiled serokolo rhizhomes, boiled powder from the bark of the morula tree… eating nutritious foods including our indigenous morogo (vegetables) to which grow wild. Such morogo which may contain agents to booste immunity makes your body strong and resist malaria."

In the area of control of transmission from person to person, both the diviners and herbalists made reference to prompt treatment with the appearance of malaria symptoms using herbal medicines prepared from medicinal plants identified earlier on.

While the herbalists and diviners viewed the methods of prevention and control just described important, all of them argued thal the most effective power rested with the collective spiritual intergrity of the Dan community. They all agreed with an eighty-year old *Mo-Pedi* female herbalists (Participant 4) who spoke the following wisdom:

"Our African ancestors survived man-made and natural disasters because they subordinated individual survival to the survival of the group/community. They knew that malaria was trabsmitted from person to person and had the potential to overwhelm the entire community/group. One person's malaria was another person's too. Malaria was never treated as a personal problem… an afflicted person who had to be shunned and avoided. The spiritual connection we had … our Ubuntu and /modimo mandated collective survival dictates constituted a powerful weapon in the perennisl struggle against the mosquito. The dynamic unity which inhers in our common source of origin-Modimo is the most powerful barrier to the spread of malaria. Without the weapon of unity we are doomed.

4.7 Impact of Western Medical Practices on Indigenous practices

The data generated on the impact of western medicine on indigenous medicine as it relates to the treatment and cure of malaria is not different from what this study found in the review of literature in Chapter Two. Typical of views expressed on this matter was the explanation provided by an eighty-year-old Mo-Pedi herbalist (Participant 4) who states the following:

> *"The apartheid government passed legislation which labeled our indigenous African practices as witchcraft and superstition. Even though such legislation has been replaced and the new democratic government of the African National Congress (ANC) recognises the critical role indigenous African practices can play in enhancing and boosting the national health delivery system, the damage done to our practice is still with us. Pharmaceutical companies have flooded our village hospitals and clinics with their products. The print and electronic media are awash with their advertisements. They have the financial power which we cannot match. The attitudes and perceptions of some of our African people with regard to indigenous cures and methods of prevention are largely negative. The government must do something to help us".*

4.8 Cooperation with Western Medical Practitioners

All the professional indigenous health care practitioners expressed the importance and necessity of the two systems cooperating and integrating in order to deliver effective services to the Dan community. However, diviners doubted the efficacy of the cooperation given the prevailing negative attitudes of the western medical practitioners towards the indigenous systems. However, a seventy-five-year-old herbalist (Participant 20) expressed strong enthusiasm on the ideas of cooperation:

> "*The cooperation of the two systems is long overdue. We need the knowledge the two systems bring to the health delivery system. Competition between the two systems is counterproductive. We should not just tolerate each other*

but we should also be able to build on each other's strengths."

A seventy-five-year-old *Xitsonga* speaking diviner (Participant 3) spoke for all the five diviners in making the following observations:

"*I think the problem with the western medical practitioners is in their definition of human beingness. They ignore the spiritness of humans. They seem to put emphasis on the biological and mental dimensions of human beingness. For me… I know other diviners feel the same… when a health practitioner ignores the role of the spiritual realm in the management of health and disease very little progress/success will be achieved. We need to tap into the spiritual realm in order to deal effectively with the major problems confronted by human beings. Western medical practitioners claim that we are superstitious and promote witchcraft when we engage the spiritual realm to manage disease and health. How do you work and cooperate with people like these?"*

Another seventy-year-old *Mo-Pedi* diviner (Participant 1) added:

"To completely ignore the spiritual realm is to abandon African culture. You cannot throw away African cultural ideas and ideals and still claim to be promoting the health of the Va-Tsonga and Ba-Pedi of Dan village. Success in the cooperation of the two systems will turn on the acceptance by the western trained doctors and nurses that a human being is essentially a spirit being.

4.9 Elderly Women and Men of Dan Village

4.9.1 Epidemiology of Malaria

All the elderly men and women in Dan village have general knowledge about outbreaks of the malaria fever, how it spreads and how it can be controlled and cured. An eighty-year-old *Xitsonga* speaking woman (Participant 2) who was born and raised in Dan village had this to say:

> "*This area/village is prone to occasional outbreaks of malaria particularly during the rainy seasons when swamps are created because of poor drainage… also long grasses and thick bushes … also, we are close to the Kruger –National Park where it is difficult to manage human health requirements which differ completely with those for animals. However, our people particularly the diviners and herbalists have developed the appropriate cultural knowledge to control malaria. I also have knowledge handed over from the past that draining the swamps and clearing the bushes go a long way in alleviating the situation. The rainy season and the humid conditions which prevail lead to breeding mosquitoes and the spread of malaria. Our ancestors handed to us knowledge of how to predict the onset of malaria through focusing on the environment, including changes in vegetation, the appearance of some rare insects, the movements of animals. The onset of the rainy season is heralded by such changes in the environment. Such changes tell us to get prepared for malaria."*

Another elderly woman (Participant 7) added the following:

> "*Malaria debilitates our people if we ignore what we have always known – keep your environment clean, don't allow accumulations of dirt to get rotten in the open, cover them*

with soil and ashes, seek treatment immediately when malaria symptoms appear

4.9.2 Perceptions and Attitudes towards Malaria control Indigenous Health Knowledge Holders

On the whole most elderly participant residents of Dan village revere herbalists and diviners as their protectors and custodians of their culture. They link closely, the protection and practice of cultural values and ideals to the promotion of health in the community. They, in fact, attribute the outbreak of disease to the breakdown of African cultural norms and values. One elderly man opined (Participant 25):

> "*We no longer treat our lives and environment as sacred. We do not ensure, as before, that we create a clean environment fit for the abode of sacred people. This is particularly the case with our younger generation who are trained in institutions which have no respect for the sacredness of human beingness."*

They insist that the solution to the dilemma of cultural misorientation and confusion which afflicts Dan village is to use diviners and herbalists as models of cultural integrity. They express profound respect for the knowledge diviners and herbalists hold and wish that the current government offers them the necessary protection. They however do not disparage the power of western knowledge. Western knowlwdge, they argue is here to stay but it is not edequate to deal with the problem. IK is a critical ingredient in solving the problem

4.9.3 Consultation Preferences

On the issue of consultation preferences of the fifteen elders if symptoms of malaria emerge there is a mixed bag. Almost half of the ten elderly women pointed out that they would consult herbalists first and then go to a clinic or hospital if the fever worsened. An elderly woman noted (Participant 2):

> "*It is not that we do not trust the power of herbalists and diviners by going to the clinic. We take an*

integrated/combined approach in the treatment of disease… my husband got sick of what was diagnosed to be malaria at the hospital. After he was given a prescription of chloroquine we decided to consult with a diviner to ensure that the spiritual realm is involved in the management of the disease. Doctors and nurses treat but Modimo and badimo heal."

Most elderly men pointed out that it is risky to depend upon one system only. A seventy-year-old resident (Participant 10) observed:

"*The diviners are well equipped with spiritual knowledge and power to heal. The hospital doctors and nurses have their pills. Why not combine African spiritual power and western treatment and cures? This is the best approach. While taking pills we also want the ancestors to have a say. I do not see any conflict in this, these two are systems complement one another. I do not accept the views of church pastors/Christians who claim the diviners work with the devil.*

An elderly woman, (Participant 18) however cautioned about the danger of combining the two systems. She observes that the combination must not under any circumstances involve taking hospital pills and traditional herbs at the same time. She insisted:

"*Take the pill… if there is no improvement this might indicate that the ancestors are involved. Consult the ancestors if hospital medicine is not working*

4.9.4 Cooperation and Integration of the Two Systems

The views of the elderly residents did not differ from those of the herbalists and diviners. An elder (Participant 22) however cautioned that integration must mean the cooperation of equal paetners:

> "*The two must be treated as equal. The general tendency in South Africa of treating things African as inferior must be discontinued. It is not correct and may lead gradually to the destruction and extinction of indigenous health knowledge. African heritage needs protection. This will rescue and restore our humanity after many years of colonial domination."*

As for the possibility of effecting control of malaria and the final elimination of malaria in Dan village, the typical response was as follows (Participant 12):

> "*It is possible if Dan village is reconstructed by our leaders as a community based on the values of Ubuntu. Out identity as an African people must be the key weapon in the fight against this fever."*

4.10 Conclusion

The data which has been presented in the chapter has been conceived as the most appropriate for an exploratory study. The idea was to tease out broad cultural notions and ideas embedded in the indigenous knowledge of the herbalist, diviners and elderly residents as this pertains to the effective control and elimination of the pernicious disease of malaria.

CHAPTER 5
DATA ANALYSIS AND INTERPRETATION: THE USE OF IK AND PERCEPTIONS ON MALARIA FOR THE CONTROL AND ELIMINATION OF THE DISEASE IN THE DAN VILLAGE

5.1 Introduction

This chapter analyses and interprets the data presented in the previous chapter. Before proceeding with the discussion, it is important to re-state that the study was designed as exploratory rather than descriptive and explanatory (Pellerin, 2012; Babbie, 2010). The purpose was to collect and acquire African-centred data in the form of broad notions, cultural dispositions and conceptualisations embedded in the indigenous knowledge and perceptions if the diviners, herbalists, the elders about malaria; and how such IK and perceptions could be deployed for the effective control and elimination of this pernicious disease.

The tradition of the Thematic Content Analysis (TCA) guided the distilling of the themes from the data (Babbie & Mouton, 2012). Both the processing of themes and their interpretation were framed by the New Afrocentric Paradigm constructed by Asante (1980, 1987, 1990), Mazama (2003) Baldwin (1986), Nobles (1986) and Azibo (2018). The study was essentially African-centred and Afrocentric as it deployed concepts derived mainly from the deep structure of the culture and worldview of the Ba-Pedi and Vha-Tsonga of Dan village in Limpopo Province to ideate.

As an exploratory study, the cultural themes which emerged from the thematic content analysis tended to be broad and were necessarily interconnected and overlapping due mainly to the holism and collectivistic thought and thinking of the *Ba-Pedi* and *Vha-Tsonga*. The following were the broad themes which emerged from the analysis: the embeddedness of the person or malaria patient in a sacred universe; health and disease as not purely physical-biological phenomena but socio-cultural and spiritual phenomena; ancestral involvement in health and disease; unity of the material and spiritual in the diagnosis of disease; herbs as embodying energy which counters/ neutralises the agents of disease in the bloodstream; negative impact of apartheid on indigenous knowledge; IK approach to prevention and control still needed the need for cooperation between indigenous knowledge and western medicine; and the need for

the restoration of an *Ubuntu*-based community for the effective control and elimination of malaria.

5.2 Analysis and Interpretation of Emerging Themes

5.2.1 Embeddedness of the Person/ Patient and Healers in a Sacred Universe

All Afrocentric scholars speak to the groundedness of the Afrocentric paradigm in the irrefragable African reality structure or patterns of interpreting reality as expressed in the deep structure of African culture or the African worldview. In the African worldview, the universe- both social and natural appears as a sacred and spiritual phenomenon, as the divine essence or spiritualistic energy is the activating force that is immanent in the universe (Asante, 1980; Nobles, 1986; Azibo, 2018). Everything in the universe shares this divine essence and is therefore sacred and divine: but the human being, compared to other creations, manifests the highest level of development of this divine essence. The human being/person was literally procreated by *Modimo* (God) or *Xikwembu* (God) respectively. To be human is essentially to be a divine spirit.

This view of African beingness or the nature of African human nature (Azibo, 2011, 2018), influenced or determined how Africans viewed and related to each other prior to the intervention of European civilization with its de-spiritualised and desacralized conceptualisation of the universe (Ani, 1994). It must be pointed out that the African's conceptualisation of themselves as spirit beings has fostered the social living correlative dictate of spirituality (Azibo, 2018) encapsulated in the well-known continent-wide African adage/ wisdom: "I am because we are, since we are therefore I am". This has also led to the development of a transpersonal ontology or a collectivist/ communal ethos in African society; what Azibo has perspectively referred to as the "I-Me-We" nexus of self-hood or the self-as-extended notion (Nobles, 1986; Azibo, 2018).

This certainly is the governing approach of the diviners and herbalists of Dan village towards their patients who suffer from malaria and other diseases. The patients are viewed as sacred beings whose problems are not theirs alone. When a patient presents for consultation, the diviners and herbalists in Dan Village view him/her holistically as a suffering soul-mind-body

since these phenomena are inseparable. Patients are also not viewed as "Other" or passive objects to be subjected to treatment without their active emotional and spiritual involvement. We noted in the previous chapter an old *Xitsonga* speaking female herbalist observing that curing a malaria patient was an expression and practice of *Vumhunu/ Ubuntu.* Further, she insisted: "I cannot be healthy if you are not". Curing a malaria patient was in fact a manifestation of her spirituality and the carrying out of a mandate from Xikwembu (God) to ensure the restoration of communal health and positive interpersonal relations in the community. When you cure the body, the soul and mind are also cured. The community is also cured/healed. African indigenous holism dictates the approach to the management of health and disease.

Furthermore: curing a malaria patient, at times without demanding payment was neither simply an act of kindness nor a feeling of pity towards an ill person but an expression of what Azibo (2014, 2018) refers to as an expression of psychological Africanity, an orientation that prioritises the sustaining, developing, and preservation of African life in perpetuity combined with a resolute positioning to counter any threat to human life. The female herbalist may also be said to be expressing the dictates of the first law of nature: "the preservation of those beings with which one shares greater bio-genetic commonality relative to other beings" of perceptively lesser bio-genetic commonality (Azibo, 2018). Surely mosquitoes constitute a threat to life and kind. The treatment of the deadly disease of malaria without asking for payment is a sign of the organismic survival maintenance propensity which states that all organisms including human beings seek to preserve themselves. This is the inhered/innate propensity of all human beings to save and preserve life; a normal natural order of the universe which came into being the first time, that is, with creation (Azibo, 2018).

This African-spiritualistic behaviour of the herbalists/diviners and their Ubuntu-based approach to healing their malaria patients speaks to the continuing strength and resilience of their indigenous African knowledge base or African-centeredness. This does not however mean that the diviners and herbalists have a consciousness that is Afrocentric in the Asantean sense. While Afrocentricity is grounded in the African worldview, as a form of self-consciousness it transcends the worldview construct to embody what is referred to as self-consciousness of victory; living a life of struggle to ensure that African people are free from oppression

(Modupe, 2003; Asante, 1990). The diviners and herbalists in Dan village are imbued with Africanity, and not Afrocentric consciousness. They are African-centred culturally, a fundamental consideration for any programme designed to control and eliminate disease.

5.2.2 Unity of the Spiritual and the Physical-Biological in Conceptualising Health and Disease

The diviners, herbalists and elderly men and women of the Dan community who participated in this investigation have an African holistic conception of health and disease. A healthy person is not simply someone who is free from some ailment or free of a painful body. Disease is also not simply a condition of body dysfunction caused by infectious micro-organisms. A healthy person is a person who functions physically, mentally and spiritually as designed by *Modimo* (God) or *Xikwembu* (God). All the participant diviners and herbalists made reference to a divinely created order in the universe that is enduring. Their deep thought about the natural and social universe is closely related to what in Afrocentric theory and scholarship is known as Maat. The concept Maat as articulated by the Nile valley deep thinkers of Nubia, Meroe and Kemet entailed order, rightness, righteousness, balance, reciprocity, justice and levelness. Asante (1990) observes that Maat is intrinsic to all African societies wherever they are found. *Vumunu/Ubuntu* is an expression of Maat in the socio-cultural area. Maat is an African ethical ideal (Karenga, 2006). Carruthers (1984:52) has however noted that while "Maat is more often encountered in its ethical context, but as a conceptualisation, it transcends the bounds of human interaction and becomes foundation for cosmic direction". To be guided by Maat in all areas of people's activity is to live according to the imperatives of divine law since Maat was coexistent with the Big Bang/ Creation (Asante, 1990).

The issue which is being raised here is that indigenous knowledge holders in Dan village have a Maatic conception of health. The spiritual, mental and physical dimensions of life, which in any case are inseparable, have to function according to the dictates and imperatives of the divine principles of Maat. It can, therefore, be seen that a body debilitated by malaria lacks balance, harmony and levelness and does not function according to the principles of Maat, if the metaphor of the interconnected web cited by one of the indigenous health practitioners is also taken into consideration. We can see how a malaria attack on a few members of an African community will cause disharmony and imbalance in the life of that community. It is in fact this condition of disharmony, imbalance, or lack of Maat which is defined as disease. These are

essentially African cultural definitions of health and disease. They are definitions that derive from and are rooted in the deep structure of African culture and capture African mythic realities.

Any programme for the effective control and elimination of malaria has to incorporate these cultural definitions of health and disease in order to succeed in mobilising the Dan community for action. Maat and its multiple meanings constitute the cultural referential structure needed for a comprehensive grasp of the notions of health and disease among the Ba-Pedi and Vha-Tsonga of Dan village. In conclusion, Maat as a set of spiritual cultural principles defines and constitutes the indigeneity of the knowledge of the Ba-Pedi and Vha-Tsonga as this relates to the management of malaria and related health issues.

5.2.3 Ancestral Involvement in Health and Disease

In the previous chapter, it was noted that participants talked about the presence and involvement of ancestors in health and disease in a manner that belies their invisibility. They clearly captured the African notion of the ancestors as the "living dead". In fact, the African cultural notion of ancestor brings to the fore the real essence of African life and the African conception of the relationship between life and death or the living and the dead. The diviners, in particular, made reference to life as a phenomenon that is infinite and knows no end. Death in their view is merely another form of existence. It is a rite of passage that allows one to attain the status of an ancestor. In dying, one transitions to the spirit world. There is no waterproof separation between the world of the living and the worlds of the dead. There is no dichotomy between the so-called natural and super-natural words. The only difference between the world of the spirit and that of the living is essentially one of the degree of visibility, the spirit world being largely invisible but real. Communication between the two worlds exists; with the living propitiating the ancestors for help to resolve earthly problems, including problems of health and disease (malaria). Ancestors communicate with the living and appear during divination sessions. We noted in the previous chapter how a young woman received a calling to become a herbalist in dreams and how a divination session confirmed her ancestral calling. This communication, it is important to clarify, is made possible through the immaterial/spiritual component of the living.

Mazama (2002), an African deep-thinker, has observed that communication between the world of the living and the living-dead (ancestors) is also underlined through the reincarnation of the living dead in their own families. New-borns are believed to be ancestors who have come back as spiritual entities. Life and death are therefore not regarded as opposites or absolutely different phenomena but are complementary. Life is born out of death and death is a prolongation of life. There are no limits or impenetrable boundaries between life and death. The circle which, according to Mazama (2002) is the African spiritual symbol par excellence, takes its full meaning as it represents the constant renewal of life through death and birth.

It is in the context of knowledge and discourse such as this that the direct presence and involvement of the living- dead in the management of health and disease is conceptualised by the diviners and herbalists. Good health is predicated on the reverence of the ancestors as shown in prayers and ritual remembrances as well as the Ubuntu-based or Maatic behaviour of the living. As long as the living show and demonstrate reverence for the ancestors, the spiritual energy of the ancestors will unfailingly play its role as protective armour or shield against disease-carrying micro-organism/germs and evil forces/such as are believed to sorcerers who cause illness.

One very interesting notion which emerged from discussions with participants is the complete absence of vindictiveness and punitive approaches on the part of the ancestors towards the living who are wayward or who do not revere them. The ancestors do not punish the wayward with disease or illness but merely withdraw their protective spiritual shield from them. It is the wayward themselves who are the source of their own predicament. By breaking taboos and violating the divine principles of Maat, the living deny themselves the cover of the protective energy of the ancestors. The fault is theirs and not the ancestors'. Usually, wrong-doing and behaviour that bring misfortune are revealed in dreams/ nightmares and during divination sessions. A return to the protective shield of the ancestors is made possible by way of family and community rituals. When the wrong-doer reconnects with the living dead, health returns and disease is prevented. Ancestors operate among the living on the basis of the ethical ideals of Maat. They are not cruel. They do no harm but do Maat.

5.2.4 The Unity of the Physical and Spiritual in the Indigenous Cure of Malaria

African people did not wait for Europeans or European invasions to name and categorise diseases based on their causes, symptoms and debilitating impact on health and other health-related issues. It is clear, for instance from studies carried out by Diop (1974, 1991) that the ancient African Nile Valley Civilisational Complex of Nubia, Ethiopia and Kemet (Ancient Egypt) developed the earliest diagnostic systems to help them manage health and disease. These systems were adopted and modified by the Greeks and Romans to lay the foundations of Western medicine (Nobbes, 1986; Finch, 1989). However, the so-called scientific de-spiritualised and de-sacralised language which has come to dominate Western medical theory and practice cannot come to grips with the meanings and realities of African health and disease discourse. For instance, the popular notion of physician, used in the West to refer to doctors or medical practitioners is incapable of grasping the meanings, realities and practices of African diviners and herbalists whose practices transcend the physical or biological dimensions to grasp the unity of the spiritual and the physical which for them constitutes the "real" reality.

Language, it must be remembered, plays an epistemological function in knowledge creation, preservation and dissemination. Indigenous African Knowledge is embedded in African languages. The deployment of African languages, in our case *Sepedi* and *Xitsonga* is considered best practice (Nobles, Baloyi & Sodi, 2016) in grasping the realities of mosquitos, malaria, its symptoms and its cure. What are the *Sepedi* and *Xitsonga* names for mosquitos, malaria, malaria symptoms, and methods of curing malaria? What realities are captured by these names? Before answering these questions, it is important to briefly grasp the nature of the African linguistic universe as expounded by African-centred experts such as Diop (1974), Obenga (1997), Ajamu (1997) and Carruthers (1999).

These experts start by noting that African people since classical times have belonged to the same linguistic universe (Diop, 1974; Obenga, 1887). African deep thinking/ philosophers in Kemet (Ancient Egypt) named/ called their language *Mdw Ntr* (Divine language). By using the term *Mdw Ntr* (the words of God/ divine speech) to explain their language, they saw their language as a mirror that at once reflectsd the divine reality underlying the universe and projected the divine reality inside human beings upon the outside world (Obenga, 1997). Studies conducted by Obenga (1997) indicate that Black Africans conceive of their languages

in this way. How many times have we heard Africans referring to their language as gifts from *Modimo* (God) or *Xikwembu* (God)? African languages are viewed as divine gifts to communicate the inner desires for peace and harmony within them and project the same desire throughout the entire community. Even African greetings, at the most fundamental level, are calls for peace and health within the person/ individual and the entire community (Nobles, Baloyi &Sodi, 2016). Is the *Sepedi* greeting *Kgotso* (peace) not a call for the same in the community? Language encodes the ontology, axiology, cosmology and epistemology of a people. An imposition of a foreign language such as English is an attempt to undermine African cultural realities in order to establish white racial supremacy. It is an attempt to steal Africa from the mouth of Africans.

Another relevant concept within the context of language is Nommo Ajamu (1997) and Nommo Carruthors (1999) have observed that Nommo represents the African conception of the generative and productive power of the word. In this context, the use of language, one's language, becomes a means of giving potency, authenticity, and agency to one's human experience while simultaneously creating and affirming one's reality. Nommo, in fact, entails correct speech connected to correct action. It is only in this way that one comes to grasp the power of the Word, one's language, in grasping one's cultural realities and doing something about them to realise one's cultural objectives and goals. When the *Vha-Tsonga* talk about *rihanyu* (translated as health) and *vuvabyi* (translated as disease) we cannot assume that these English translations capture fully the meanings and nuances of the *Xitsonga* words. The same is the case when one refers to *swikombiso* (symptoms), *switsongwa-tsongwana* (germs) and *ku-tshunguriwa* (to cure). We cannot be sure that a *Mu-Tsonga* who deploys English words is capturing the essence of Nommo; correct speech connected to correct action. In this researcher's view, Nommo is impossible when the foreign word is deployed – English, French, etc. because language as noted earlier on encods the ontologies, axiologies, cosmologies and epistemologies of the people who have developed those languages. *Ku-tshungula,* for instance, encompasses the idea of deep spiritual cleansing and elimination of the anti-life *switsongwa-tsongwana* that are deposited in the human body by *tinsuna* (mosquitos). Let us repeat that African languages as Obenga (1997) and Carruthers (1999) have noted transcend the material dimension of reality to embrace and mirror the spiritual reality underlying the universe and also seek to project the divine reality inside the African human upon the outside world. African concepts must be deployed in creating programmes to control and eliminate malaria.

5.2.5 Herbs as Embodying the Spiritual Energy to Counter the Life-Threatening *Switsongwa-tsongwana*

The *Ba-Pedi* and *Vha-Tsonga* herbalists observe that the herbs that they know and deploy to cure malaria have spiritual energy that they as herbalists can activate to control, neutralise and eliminate anti-life *switsongwa-tsongwana* (Xitsonga for germs) and *ditwatšši* (Sepedi for germs). The activation of the anti-malarial energy in the herbs is realised spiritually through the use of verbal incantations (words) and set formulas used in the preparation and application of herbs on malaria patients. These indigenous African processes/practices have to be strictly adhered to for the potency of the energy to be realised. Failure to do so on the part of the herbalist renders the energy to lose its potency. Furthermore, appeals to and veneration of one's ancestors also come into play. There is, therefore a cultural need to set right one's relations with one's ancestors in order for the control, neutralisation and elimination of malaria to be initiated and completed. Here again, is the operation of the holism attendant to the cure of malaria and other similar ailments. Herbal treatment/cure in the indigenous African way is not simply a matter of getting into a shop and buying a powder and liquid and drink/ apply as instructed in the paper packaging. This, in fact, constitutes a bastardisation of the indigenous African way.

The notion/idea/belief of diviners and herbalists in Dan village that the dormant energy in the herbs is activated by the use of appropriate incantations and set-formulas is Africa-wide and makes sense in the light of power of Nommo discussed earlier on (Ajamu, 1997). It is believed that spiritualistic energy pervades the universe and everything there is-trees, herbal plants…etc.- and that this energy can be accessed and tapped for use in curing disease through the use of incantations. Not every person in the community is capable of activating this energy. Only the trained diviners and herbalists- have such knowledge and power. We noted in the previous chapter the structured initiation and education of a young woman into herbal practice under the guidance of a more experienced practitioner. Herbal knowledge and practices are completely different from the materialistic and secular science acquired by doctors, nurses and pharmacists in Western medical training institutions. The knowledge and practices acquired by African herbalists constitutes what we may refer to as sacred science (Nobles, 1986). This is not magic or witchcraft.

It is in the context of such sacred knowledge that programmes for the effective control and elimination of malaria must be conceived and implemented. African people are likely to accept

and take up programmes which incorporate knowledge and values which resonate with their cultural realities. Programmes which are completely based on an anti-African European worldview will further dislocate, misorient, and alienate African people and face hostile rejection.

5.2.6 Potency of AIK in the Prevention and Control of Malaeia

The participating diviners and herbalists in Dan Village have knowledge of prevention and control of malaria which synthesises the imperical-tangible aspects of medicine and the spiritual dimension of medicine. They observe, for instance, that while empirical knowledge about preventing human-mosquito contact, the changing behaviour of the fkora and fauna which allows them to predict the mosquito-rainy season, as well as the environmental knowledge required to minimise the breeding of mosquitos is important, it is the restoration, revitalisation, and activation of the affordances of spiritualistic energy of Divine origin inhering in the African human being which are most effective in the perennial struggle against the mosquito and malaria, spiritualistic energy is the elan vital; the energy that powers everything in the universe. It is the force that is responsible for the motivational functioning of the African human being. Spiritualistic energy which, in fact, is the African human essence mandates a collective/communalist orientation in the African human for the survival and preservation of the African human species.

This is what explains the wisdom of the eighty-year old *Mo=Pedi* female herbalist vall for collective unity since, she aegues, one person's malaria is another person's too, and that "without the weapon of unity we [the Dan Village community] are doomed". Coming down with malaria is not viewed individualistically is a personal problem but a collective problem of the entirecommunity. Malaria is transmitted from one person to another. Thus an approach for the prevention and control of malaria which is cost at the level of the community is the best and the most effective approach.

5.2.7 The Negative Impact of Western Medicine on Indigenous Health Practice

The diviners and herbalists of the Dan community are aware of the destructive impact that apartheid colonialism has had on IK as this relates to the control and elimination of malaria. The impact of apartheid legislation and European schooling and mis-education of Africans

have contributed to the cultural and psychological dislocation and mis-orientation of the African people (Asante, 1991; Baldwin, 1980; 1996; Azibo, 2018). Apartheid legislation and the imposition of the European worldview have disorganised the African personality or what Azibo refers to as psychological Africanity (Azibo, 2014; 2018). He points out that most African people suffer from the grossly pathological disorder of psychological misorientation, a condition in which Africans negotiate reality with a cognitive structure composed of European beliefs, ideas, concepts, ideals. The diviners and herbalists in Dan village note that this western imposed cognitive structure, despite the repeal of the anti-IK legislation, continues to undermine the indigenous health system. Furthermore, the diviners and herbalists cannot match the financial clout of the pharmaceutical industry which has flooded the Dan drug market with chloroquine to the detriment of their herbal medicine or therapies. However, only a few in the Dan community continue to trust the cultural medicinal healing efficacy of their herbs. They are currently trying to figure out what it is they can do to seek protection from what they refer to as unfair competition from western medicine. The print and electronic media continue to present the view and image of indigenous knowledge as ineffective and primitive and they do not have the knowledge and means to counter such negativity. This attitude, particularly among the so called educated elite who are usually tasked with creating programmes, must be avoided if progress is to be realised. Diviners, herbalists and the elderly do not reject Western knowledge as such. They reject only that knowledge which dehumanises and deAfricanises them.

5.2.8 Cooperation with Western Medicine

The issue of cooperation with western medicine in the effective control and elimination of malaria in Dan village raised in microcosm some of the major problems African people have faced in the struggle for psychic and cultural liberation. Parenthetically, the struggle for the relocation of African people to their psychic and cultural spaces, as agents, from which they were dislocated through the imposition of the colonial system of imperialism, is the primary objective of the Afrocentric movement (Modupe, 2003; Mazama, 2003; Asante, 1980; 1987; 1990). However, Afrocentricity, unlike Eurocentrism, does not seek to impose its value systems as universal. Afrocentricity promotes the notion of cultural pluralism without hierarchy. In fact, Afrocentricity is a theory about African development as African (Modupe, 2003). Afrocentricity does not seek domination, exclusion and hegemony but believes in the right of people to develop based on their cultural centres.

It is interesting to note that most of the participant diviners and herbalists as well as elderly women and men are acutely aware of the problem of western hegemony and the marginalisation of indigenous knowledge and practices. An awareness of this marginalisation is encapsulated in the statement by one diviner: "… they believe we belong to a primitive past which does not have any relevance today… the problem is Western education". In fact, because of the situation of the dominance of western medicine, one herbalist doubts the possibility of any meaningful cooperation between the two systems- “Can we be equal partners”?

The diviners and herbalists, in particular, regard themselves as the custodians of African cultural values and insist that cooperation is possible if IK holders themselves create organisational structures that push for the enactment of legislation that protects their knowledge and practices. They, however, complain about the lack of leadership, particularly among the current crop of African politicians who merely pay lip service to the need to preserve African heritage. A diviner also made reference to the problem of some IK holders who have come under the influence of the commercialisation of the entire health system. He has noted that the current craze in South Africa to make money and accumulate wealth is destroying the cultural foundation on which indigenous health systems have been based: the divine mandate from God to serve humanity from pernicious diseases. He observes that the spiritual foundation of the entire indigenous health delivery system is being eroded by the commodification of God's gift to humanity- knowledge.

The need for cooperation between the two systems is an approach that most IK holders strongly believe in. They point to the strength of a system of health delivery based on the diverse values and believes of the people of South Africa. They have come to accept that western medicine is here to stay and they insist that its exploitative tendencies can only be tempered by the resilient strength of African spiritual-communal systems. The IK holders have remained tied to the hope that the antagonism which currently prevails in the health delivery system will be overcome by the African- based notion of the complementarity of duality.

5.2.9 Ubuntu-Based Values in the Effective Control and Elimination of Malaria

The theme about the effective control and elimination of malaria through the deployment of Maatic Ubuntu-based values goes to the heart of the discourse about the spiritness of the African human being or the African personality (Azibo, 2014, 2018) and how this spiritness or soul (Asante, 1980) constitutes the energy that can be activated and mobilised to ensure the collective survival and health of a people. The collective survival thrust of African people based on the transpersonal values of harmony, order, balance and reciprocity are entailed in the first law of nature; that all organisms, including human beings, are equipped with the mechanisms to preserve life. Afrocentric psychologist, Azibo (2014, 2018) points out that the collective phenomenon called the African personality is a bio-genetically based psychological Africanity with a spiritual core; a holistic and collective phenomenon that provides the synthesis between the "I-Me-We" nexus of selfhood. The "I" or the "self" is a phenomenon that is anchored to the group. The “self” from an African perspective is an extended phenomenon, and not an isolated phenomenon, which derives its value and identity from the group or community. The "self" comes to realise that its survival is dependent on xenophillic values of reciprocity, balance, harmony and order. This is encapsulated in the African adage: "a person is a person because of other persons". Capturing this African personhood or Ubuntu is the notion of collective Blackness which energises the African survival thrust.

The diviners, herbalists and elders in the Dan community are acutely aware of the threat to African survival posed by the gradual loss of values precipitated by the imposition of the anti-African despiritualised and desacralized ontology of the West. The gradual fragmentation of energy and derailment of the African soul or spiritness precipitated by the imposition of the materialistic values of a racist apartheid colonialism have demobilised the African survival thrust. They are aware of the existence of western-based knowledge and IK which has the potential to control and eliminate malaria. However, they observe that the potential of such knowledge cannot be realised in practice- will remain dormant- as long as the collective/ communal energy embodied in African Ubuntu-based values has not been rescued and restored. They note that you could have warehouses full of chloroquine and gallons of anti-malarial sprays as well as dozens of western-trained doctors and nurses in Dan village; but these resources will not have much impact on malaria if the Ubuntu-based values of the *Ba-Pedi* and *Vha-Tsonga* are not integrated into culturally sensitive programs which resonate with their cultural image and the human interest of the community. Programs that exclude indigenous

knowledge on the nature of African human nature- the African personality construct (Azibo, 2018)- as well as the necessity to rescue, repair and restore African cultural realities, will continue to alienate African people. What is needed, in the Afrocentric sense are programs that are founded on the xenophilic transpersonal ontology of the *Ba-Pedi* and *Vha-Tsonga* of Dan village.

Africans, it has been correctly noted, can only meaningfully advance by methods of their own. However, African deep thinkers such as Azibo (2018) have warned that Africans do not have a monopoly on useful ideas. He, however, insists that ideas from other cultural traditions may be integrated into the African developmental trajectory only if they are not incongruous with the deep structure of African culture and mythic realities.

5.3 Conclusion

It is important to restate that this was an exploratory investigation designed to tease out or solicit broad cultural notions, concepts, dispositions embedded in the African IK and perceptions of African diviners, herbalists and elderly women and men of Dan village as these relate to the effective control and elimination of the pernicious disease of malaria. As an exploratory study, there was no attempt to provide intimate and detailed descriptions of the IK landscape as in descriptive studies or the unpacking of course-effect relations of variables embedded in the IK as in explanatory studies (Babbie, 2010; Pellerin, 2012). Deploying the thematic content analysis method of analysis and interpretation of data framed by theoretical insights from the Asantian Afrocentric paradigm and African personality theory articulated by Nobles (1986) and Azibo (2018), at least eight broad African-centred cultural themes were identified. It was clear that these cultural themes were rooted in the reality structure/ worldview of the *Ba-Pedi* and *Vha-Tsonga.* It is this African worldview that provided the cultural patterns for interpreting the use of IK and perceptions on malaria for the effective control and elimination of the disease in Dan village.

CHAPTER 6
FINDINGS OF THE STUDY, GENERAL CONCLUSION AND CREATION OF TENTATIVE MODEL FOR CONTROL AND ELIMINATION OF MALARIA

6.1 Introduction

In the previous chapter, significant themes distilled from the data were analysed and interpreted within the framework of the metatheory of Afrocentricity. Insight garnered from the advanced theorisation on African personality by Black, African-centred psychologists such as Azibo (2018) were also taken on board to create a comprehensive African-centred theoretical-cognitive framework to make sense of the identified themes. In this final chapter, the significant findings of the entire exploratory investigation are presented and their implications for future descriptive and explanatory research are briefly discussed. A broad general conclusion focusing on the vital importance of rescuing and deploying African indigenous knowledge in tackling problems which emerge in the delivery of health is offered. The chapter closes with a discussion and creation of a tentative model for the effective control and elimination of the pernicious disease of malaria in Dan village.

As the study was essentially exploratory in design, the findings and conclusion as well as the suggested model are necessarily cast in the form of broad African-centred cultural notions and ideas which capture the possibilities, probabilities, and potentialities embedded in the IK and perceptions of the research participants related to malaria, and how this cultural knowledge can be utilised for the control and elimination of malaria. The findings, general conclusion and model cannot, therefore, be construed as definitive. Further research deploying descriptive and explanatory design is definitely warranted in order to arrive at definitive and cogent findings, conclusion and model.

6.2 Findings

6.2.1 The Epistemological Power of the Metatheories of Afrocentricity and African Personality

Although not openly stated in the aim and objectives of this study, a critical implicit intellectual burden of this study was to demonstrate the epistemological power and the intellectual merit of deploying Afrocentric and African-centred methodologies in conducting research on African

issues and problems. A pioneer in African-centred methodologies, the late John Henrik Clarke, observed that African people are the most written about and least known people in the world (Clarke, 1997). The main reason for this, apart from the deliberate falsification of African anthropology, history, politics and sociology for the purpose of justifying the brutal racist enslavement, colonisation and exploitation of African people, is the continuing hegemony of anti-African Eurocentric paradigms in studies of the Afrispora (Africa and her diaspora). The dominance of such paradigms in African studies is designed to perpetuate white supremacy/racism globally (Welsing, 1991; Diop, 1991; Carruthers, 1999; Asante, 1990; Azibo, 2015). The African voice and agency have been silenced and are hardly ever visible on scholarship related to African issues in South Africa, for instance. Sampson (1993) has reminded African scholars that to have a voice when one is required to speak in the forms allowed by the dominant Eurasian discourse is still not to have a voice, that is, not to have self-determining self-representation. It is, unfortunately, merely to speak as the dominant discourse permits, or speak as one has been constructed by the dominant discourse which essentially involves speaking through its gaze, perspective and standpoint.

Nobles (1986) describes this phenomenon as conceptual incarceration; a condition in which an African scholar deploys definitional systems and cognitive structures which are rooted in and derive from the worldview of the oppressor to ideate. In cases such as this, the African scholar perpetuates the power and interest of the oppressor and unwittingly silences the power and voice of his/her own people. It is to avoid and escape from this imprisonment that Afrocentric and African-centred scholarship has emerged.

The power and merit of Afrocentricity and African-centeredness manifested themselves in their capacity to direct the researcher to come to grips with a distinct quality of thought and practice rooted in the cultural image and human interest of the *Ba-Pedi* and *Va-Tsonga* of Dan village. To capture this distinct quality of thought and practice the researcher had to deploy indigenous concepts and conceptualisation of health and disease in general; and such concepts and conceptualisation as they relate specifically to the effective control and elimination of malaria. It became clear as the research process unfolded that these indigenous concepts and conceptualisations, which in fact constitute African IK, encoded the ontology, cosmology, axiology and epistemology of the African people of Dan village. The concepts used by the

people of Dan village to communicate processes that occur in health delivery did not merely grasp the material/physical dimensions of the processes but immaterial/spiritual dimensions also. For instance, the *Xitsonga* concept *kutshungula* (to cure) represents the process as involving deep and thorough physical and spiritual cleansing to restore order, balance and harmony in the person system of the patient. *Kutshungula* thus grasps the process as a holistic phenomenon.

Azibo (2018) describes African-centeredness as audacious epistemology as a way of grasping its decisive and clean break with Eurocentric epistemology and its rootedness in the irrefragable African reality structure. He points out that its meaning can "… be no more or less than construing, interpreting, negotiating and otherwise acting in the world using the system of conceptual thought generated from the Africa cultural deep structure" (Azibo, 2018:22). Harris (1992) and Azibo (2018) point out that the deployment of such conceptual thought in research is a manifestation of the freedom and literacy of both researcher and research participants. It may be noted in this regard that in Afrocentric scholarship freedom and literacy have special meanings. Freedom means conceptualising the world and reality in a manner which is contiguous with one's historical and cultural traditions while literacy involves the application of freedom in tackling problems in the here and now. To this extent, the diviners, herbalists and elderly men and women who participated in this study, by conceptualising their identity in a manner aligned with the African reality structure, are relatively free and liberated despite the attempted deAfricanisation evident in the apartheid legislation which sought to ban indigenous health practices and knowledge.

6.2.2 The Potency and Power of the Sacred African Worldview in Health and Disease

The overarching finding of this exploratory study is the view and position, held by all participants that the universe is sacred and the Spirit/Energy/Power of the Creator pervades and animates all there is. The universe is a living phenomenon; animated by Creative Energy. Natural, metaphysical, and social events and processes are sacred and governed and structured by Creative Spirit. The diviners, herbalists and elderly men and women thus hold the view about the sacred nature of the universe. They define their human beingness as integral to this sacred nature. The meaning of health and disease, processes embodied in health delivery as well as the IK transmitted to them over generations are manifestations of sacred spirit.

These patterns of interpreting reality which constitute the deep structure of the culture of the *Ba-Pedi* and *Va-Tsonga* is the force that has produced the general design for living: the customs, family life is, the organisation of relations and relationships in community and society in general as well as the methods and practices of promoting good health, and methods and practices of controlling, combating, and eliminating disease. The view and position of all the participants are that while the general design for a living has been weakened through the systematic imposition of the Apartheid/European definitional systems and worldview, the African patterns of interpreting reality, the African worldview or deep structure of the culture has survived and continues to have potency in all areas of people activity including health delivery. Their position, which emerged in discussions centred on the problem of controlling and eliminating malaria, is that success will elude all programmes and plans which marginalise or ignore the worldview of *Ba-Pedi and Va-Tsonga.* In other words, malaria will not be controlled or eliminated as long as the designs and contents of programmes do not integrate the IK, indigenous values and ideals of the *Ba-Pedi and Va-Tsonga* in Dan village. This, in fact, is the overarching finding in this exploratory investigation: the continuing power and potency of the worldview of the *Ba-Pedi and Va-Tsonga* and the necessity of deploying its definitional systems in combating malaria.

6.2.3 Health Delivery Conceptualised and Grounded in the Spiritness and Spirituality of the Healer and Patient

The notion of the spiritness and spirituality of the African person emerged as a central pillar of the IK and the general perceptions of the diviners, herbalists and elderly men and women of Dan village. The diviners and herbalists define their nature and that of their patients in terms of spiritness and spirituality whose source is *Modimo* (God for the *Ba-Pedi) or Xikwembu* (God for the *Va-Tsonga).* The concept *Bantu (Ba-Ntu)* by means of which they define themselves translates to "people of the spirit" or "spirit beings". They observe that all Africans share this spirit on spiritualistic energy literally "given" to them at conception by *Modimo/Xikwembu.*

This view of the nature of African human nature has been defined clearly in the advanced theorisation of the African personality by African-centred psychologists such as Daudi Ajani ya Azibo (Azibo, 2018). He defined African personality as a biogenetically grounded psychological Africanity with a spiritual core; a holistic and collective phenomenon which provides the dynamic synthesis of the I-Me-We nexus of selfhood. The implications of Azibo's position are that the transpersonal ontology of the African personality and the

communal/collectivist orientation of the African person are rooted in and grounded in the biogenetic substratum of the African human. The transpersonal ontology and collectivistic psycho-behavioural modalities concordant with this biogenetic base are natural phenomena and when properly cultivated develop into a self-consciousness that prioritizes the sustension, defense and preservation of African life and culture. The collectivist ethos must ground all programmes meant to help African people. The diviners, herbalists and elderly must be directly involved in the creation of any programme to combat malaria. The practice of relying exclusively on experts who ideate based on the Western regime of truth must come to an end.

It is interesting to note that the herbalists and diviners define their profession which involves the preservation of health and the combating of disease as a "calling" and as something "mandated by *Modimo/Xikwembu.* They are in this way expressing or manifesting psychological Africanity. Ensuring that the community's health is preserved is what constitutes their spirituality.

When a patient presents for consultation their spirituality sets in. A patient is viewed as a sacred spirit-mind-body phenomenon which/who is experiencing pain and internal disharmony. The spirit of the diviner/herbalist connects with the spirit of the malaria sufferer. There is no objectification in this relationship. Curing a patient is in fact healing because it is not simply or only the elimination of the germs which is the target of attention but the restoration of the balance and harmony between body-mind-spirit caused by the illness/disease.

6.2.4 Belief in the Involvement of Ancestors in Health and Disease is Real

The notion of the "living-dead" first of all entails that life is infinite and that the ancestors are present in the lives of the living. Ancestors are those who have transitioned to the spirit world and because of the spirit nature of their existence are capable of communicating with the spirit of the living. For the diviners, herbalists and elderly men and women in Dan village the presence of the ancestors in the lives of the living is real and spiritual energy and power can provide the living with a shield against threats to life including attacks from disease. Their role is essentially protective. They also provide inspiration to the living to lead lives worthy of the sacred beings that the living really are. In the view of the herbalists and diviners, the ancestors do not punish the wayward such as causing the mosquitos to inject malaria-causing germs in

the body. They are neither cruel nor vindictive. They however withdraw their protective shield from those who do not revere them; those who disconnect themselves from the ancestors. This withdrawal of protection opens the way for problems, including disease, to invade the lives of the wayward. The removal of the spiritual protection thus leaves the living vulnerable to misfortune including disease which causes illnesses.

Effective healing of the ill/sick can only unfold/be realised with the spiritual support and cooperation of the ancestors. This is why divination sessions involve, inter alia, the determination of the state of relations between the patient and his/her ancestors and efforts/rituals to restore harmony in broken relations. Furthermore, in the area of herbal healing, the anti-malaria agents/energy in the herbs will be effective to the extent that the support and cooperation of ancestral spirit power is activated. This is why the processes of preparation and application of herbal treatment is accompanied with the propitiation of the ancestors of the patient for help. In the view of the diviners, herbalists and elderly men and women in Dan village, the mediation of the ancestors in all processes involving the control and elimination of disease is imperative. There is no tip-toeing on this matter.

6.2.5 Heritage Knowledge of Malaria, Epidemiology, Control and Elimination Constitutes Sacred Science

The diviners, herbalists and elders, in having consciousness of themselves and defining themselves as a sacred people living and integrated in a sacred universe created by*Modimo/Xikwembu* speak to an epistemology which recognises the material/physical dimension of existence, but that transcends the material to incorporate the spiritual dimension. This is African indigenous knowingness which generates sacred knowledge or sacred science. The knowledge which has been passed on from generation to generation-African heritage knowledge- has been produced/generated by minds which process information from the five senses; and minds which never-the-less are ceased by the extra sensory realisation that what they perceive is spirit manifesting (Frye, C.A, Harpers, C.L Myers, L.J, 2008). In this sense, knowledge is viewed as rational as well as suprarational.

In order to grasp the nature of sacred science as represented in the consciousness of the diviner and herbalists of Dan village, it is necessary to define the notion of science from an African-

centred perspective. Adams 111 (1986) insists that science is the search for unity and wholeness within the totality of human experience. Science is not culturally independent. The holistic/wholistic orientation to the understanding of reality characteristic of the African approach is evident in Adam's definition. Nobles (1979), an African-centred psychologist, also observes that "science is the formal reconstruction or representation of a people's shared set of systematic and the cumulative ideas, beliefs and knowledge stemming from their culture". The indigenous knowledge or science of the diviners and herbalists becomes sacred in the sense that it is a search and representation of the wholism/holism characteristic of the unity between the matter and spirit. As the universe itself is sacred, science or representation of it (universe) must reveal this sacred nature, hence sacred science.

2.2.6 Knowledge of herbs for the control and elimination of malaria

The herbalists and deviners were able to identify four (4) indigenous plants species used to control and eliminate malaria: *Mosunkwane, Lengana, Serokolo* and *Morula.* The knowledge of these plant species was acquired through the traditional/indigenous processes of spiritual initiation. All the herbalists and devininers insist that this knowledge, while imperical, goes beyond the emperical to the spiritual/sacred dimension. Essentially this knowledge is heritage knowledge passed on inter-generationally since time ememmorial. The elderly men and women have also acquired this knowledge. Their knowledge, however, is emperical acquired mainly through their experience in the community.

6.2.6 The Negative Impact of Western Medicine on IK

The acute awareness and understanding of the negative impact of western medicine on IK as it relates to the management of health and disease are evident in the consciousness of all the participants of this exploratory study. They are aware of the colonial-apartheid imposition of a despiritualised and desacralized view of reality which continues to negate their own definitional systems rooted in their understanding of the universe as sacred. They attribute this imposition or negation to western education which actually miseducates\African people about African human beingness. For instance, the spiritness and spirituality of the African play virtually no role in the management of health and disease (malaria) in Western medical establishmentarianism. Apartheid legislation sought to delegitimise and destroy indigenous health practices and delivery systems through legislation which labelled these practices and

systems as pre-logical, superstition and witchcraft. They note that the repeal of the anti-African apartheid legislation and its replacement with legislation which recognises the important role IK can play in the improvement of national health delivery, though positive developments, have not made much headway due to lack of leadership among the political elite who pay mere lip-service to fundamental African aspirations.

The attempted negation of African-centred cultural realities in the area of health and disease has implications for the conceptualisation, development of plans and programmes for the effective control and elimination of malaria. At the societal and community levels, there is certainly a need to combat the reigning colonial view and perception that Western health delivery ideas and practices are superior to African indigenous practices. This must be coupled with proactive societal and community efforts to restore knowledge and confidence in the capacity of IK and health practice to promote health and control and eliminate the disease. However, what happens at the national policy level is important. There is certainly a need to revisit and scrutinise the cultural and ideological foundations which underpin current policy and legislation in the area of IK in general and indigenous health practices in particular. The critical question is whether or not African cultural deep thought in the area of health delivery has been considered in crafting policy and national legislation. An approach which creates synergy between programmes and African values/AIK has the potential to improve the health delivery system.

6.2.7 Need for Cooperation between the Western and Indigenous Health Delivery Systems

The participants recognise the vital need of the two systems to cooperate on the basis of mutual and reciprocal recognition and respect to effectively control and eliminate malaria. They, for instance, recognise the significant role that Western anti-malarial drugs and sprays as well as elements of Western environmental science has played in the control and elimination of malaria. However, they decry the continuing perception which leads to treatment of the Western system as mainstream thus inferiorising the indigenous system. They point out that as long as this perception remains strong meaningful cooperation will continue to be stymied and efforts to control and eliminate malaria will not bear the desired fruit.

The seemingly entrenched perception that the western system is universal and mainstream, is rooted in the dominant logic system in the European/Caucasian worldview. Logic, it is necessary to note, refers "to the canons and criteria of validity in reasoning or how one organises what one knows" (Dixon (1971) cited in Carrol, 2010:115) Among Caucasians the logic is dichotomous (either/or). This orients Caucasians to treat what is different from their cultural creations as oppositional and enemy to theirs and thus to be eliminated or dominated. Apartheid legislation, for instance, sought to eliminate IK through legislation. The current treatment of western medical knowledge as mainstream and not a mere localised Eurostream (Azibo, 2018) is based on either/or logic. The African logic system, on the contrary, is diunital (both/and). Differences are not treated as dichotomous or rigidly oppositional but appositional or complementary dualities. This would appear to be the logic which animates the approach of the diviners and herbalisst to the issue of cooperation. Equitable cooperation between the two systems would produce a powerful health delivery system.

6.2.8 Restoration of Maatic Ubuntu and Nommo as African-Centred Solutions to Malaria

The diviners, herbalists and elders in Dan village take the position that the struggle against malaria is, at the most fundamental level, a socio-cultural issue. It is the nature and quality of human beingness which exists in a society/community which must be the focus of attention for enyone who wants to make a meaningful contribution not only in the area of health but in all areas of people activity. They observe that while herbs, chloroquine and other drugs which cure malaria as well as chemical sprays which kill mosquitos are important and must not be abandoned, it is the nature and quality of human personality which exists in a community which determines whether or not a community will succeed in eliminating malaria. They speak to the current relative disarray and paralysis of the community in the face of serious economic and socio-cultural problems which have perennially engulfed the Dan community. The researcher is, for instance, aware of the paralysis of the community in the face of the anti-social and destabilising activities of a criminal gang nicknamed "*Boko Haram".* Outside security forces had to be called in to stabilise the situation.

The participants in this study attribute this disarray and paralysis to the apartheid colonial erosion and corrosion of Maatic Ubuntu and Nommo which underpinned the thought and behaviour of the African people during the preconquest era. They believe that the rescue and

restoration of Maatic Ubuntu and Nommo will reconstitute an African self-consciousness which will make the *Ba-Pedi and Va-Tsonga* of Dan village to orienteer in a manner that prioritises the sustention, defense, development and preservation of African life and culture with a resolute orientation to counter and neutralise any threat to African life. It is the restoration of this type of African self-consciousness or cultural and psychological Africanity which will win the war against the tiny enemy of health which Ba-Pedi call *Boswina*, Va-Tsonga call tinsuna and Europeans call mosquito.

6.3 General Conclusion

When Adams iii (1986) an African-centred natural scientist, reminds us that philosophers have long noted that science is deeply embedded in human nature and goes on to define science as the search for unity and wholeness within the totality of human experience and when Nobles (1979), a prominent African-centred African-American experimental psychologist, expresses his view that science is the formal reconstruction and representation of a people's shared set of systematic and cumulative ideas, beliefs, and knowledge stemming from their culture, we need to pause and revisit afresh our perceptions and attitudes towards African-Indigenous Knowledge which tend to construe it as of inferior worth compared to Western science. This inferiorrisation of African Indigenous Knowledge comes out clearly in its categorisation as local and ethnic compared to Western Science which is categorised as mainstream (superior) and universal (advanced and superior). Furthermore, African deep thinkers such as Carruthers (1996) and Semaj (1996) have called for the development of an African cultural science after realising the oppressive nature of the so-called mainstream science whose correct and accurate categorisation should be Eurostream (Azibo, 2018) implying a merely local European phenomenon imposed on the rest of the globe by force to entrench European supremacist-racist global hegemony.

If, indeed science is a culturally based search for meaning we begin to appreciate the cultural worth of African Indigenous Knowledge, an African sacred science which has been searching for meaning in a universe which appears to Africans as sacred. Sanity, it appears, will dawn on African scientists when they reject being bamboozled by Western European scientists to follow their lead, and base African efforts in scientific progress on the sacred foundation which has been laid by African Indigenous scientists. The search for unity and wholeness within the

totality of human experience in the area of malaria devastation which is what the herbalists, diviners and elderly women and men in Dan village are doing as revealed in this exploratory investigation, is the beginning of African-scientific wisdom and opens a culturally sacred scientific platform for the effective control and elimination of the pernicious malaria disease.

We will end this section with what is certainly a very sick joke considering what Africans have accomplished since Nubia, Meroe and Kemet:

> "When we classify mankind by colour, the only one of the primary races… which has not made a [single] creative contribution to any of our twenty-one civilisations is the black race… [Harvard Professor Arnold Toynbee, cited Adams, iii, 1986]

As if to assure those Africans who might be traumatised by such sick jokes, Finch (1998), after a meticulous study of the contributions of Black/African scientists of Kemet (Ancient Egypt) opined that these Africans built their civilisation as if they were reading the mind of God. The Havard professor was wide –of the-mark. His was an expression of arrogantignorance

6.4 The Dynamic Pillars of a Tentative African –Centred Model for the Control and Elimination of Malaria

6.4.1 Introduction

Notions such as "dynamic pillars" and "tentative African-centred model" which appear in the subsection title of this final chapter capture and portray what it has been possible for this study to construct as a tool which is capable of guiding anyone committed to creating meaningful African-centred programmes meant for the control and elimination of malaria in an African community such as Dan village in Limpopo Province in the Republic of South Africa. The investigation was exploratory and not descriptive and/or explanatory. The researcher takes the position that exploratory investigations can only produce outcomes, findings, recommendations and proposals which are tentative. It is only when thorough descriptive and explanatory studies on a problem are done that definitive outcomes and proposals can be made. The model is African-centred because it derives its ideation from a conceptual universe which is generated

by the deep structure or worldview and survival thrust of African culture. The deployment of Eurocentric models which are anti-African in their essence is rejected because they are oppressive and incapable of elevating African people. Tip-toeing on this matter is forbidden (Azibo, 2018).

6.4.2 The Symbolism of the Circle and Structure of the Model

Mazama (2002) who has partnered with Molefi Kete Asante in constructing the African-centred Afrocentric paradigm observes that the circle is an African symbol par excellence. The symbol takes its meaning as it represents, inter alia, the interconnectedness and oneness of reality as well as the constant renewal of life through death and birth. Life is infinite; does not end. This concept has been unpacked in previous chapters. It is superfluous to repeat the unpacking here. The figures below (Figure6.1 and Figure 6.2) capture in diagrammatic form this symbolism as well as the structure and nature of the model which is being proposed. It is necessary to note that there are four (Figure 6.1) circles representing the dimensions of reality which define and influence the African. The encapsulating circle which represents the divine spiritual dimension is the source and directing and activating energy that is immanent in everything that is. It represents *Modimo/Xikwembu.* Human nature as well as psycho-behavioural modalities in all areas of African people activity including health and disease come under the direction and influence of the divine. Any programme and its processes and activities must consider this dimension if it has to have meaning and relevance in the lives of African people. The African person is at the centre existing within his/her own spiritual dimension but embedded in the immediate social community spiritual dimension which is connected to the natural environment and ultimately to the all-powerful *Modimo/Xikwembu.* What is expressed at the individual African person level is not individualism but an individuality anchored to the social-community dimension. Again, programmes for the control and elimination of malaria cannot ignore the individual but view and engage the individual as an organism anchored to the social-community dimension of reality.

The significance for the model of the African person being at the centre as well as being represented by a black circle must be unpacked nakedly. The African person being at the centre entails that the model, in its theoretical foundation, must consider the nature of African human nature/African personality. The black circle represents and direct us to consider the role and

function among other factors of the black pigmented biogenetic substance/hormone called melanin in African personality. Melanin and its function has been neglected in Eurocentric theory (Azibo, 2018).

First, locating the African at the centre of the model is a way of indicating that the concepts and ideation which act as building blocks of the model must be rooted in and derive from the historical and lived experience of African people. The model must be ontologically and epistemologically grounded and rooted in African experience and self consciousness. The model must be African-centred in its conceptualisation and construction. The model must not only reflect African thought but must also be conceived as a method and means of restoring the authentic African agency which has been weakened and distorted by apartheid-colonial conquering. This is an inperative. The circle is also symbolic of the African reality structure as explained earlier on.

It may also be noted that the pillars of the model are diagramatically represented as being rooted in and deriving from the African person. The pillars also intersect with the community-social, natural and divine spiritual dimensions. This intersectinality seeks to represent the notion of the interconnectedness of everything there is, the unity of being or the oneness of reality. Furthermore, the notion of pillars brings front and centre the idea that without them the model would not stand or exist as functionally African. The energy the pillars generate represents the power and the African functionality of the model.

Azibo (2011, 2018) observes that melanin is so critical to and pervading of the African biological system that it should be considered a complementary sensory network to the central nervous system. Nobles (1976) has actually dubbed it the essential melanic system. Azibo (2018) likens it to a phylogenetic twin to the central nervous system meaning, like the central nervous system, it has evolved to enhance and ensure the survival of the African human species. The first order function of melanin, particularly neuromelanin, is to transpose spirit/spiritualistic energy from the cosmos/from the Divine (Azibo, 2018) to be utilised by the human being. Melanin is not therefore a waste product. It is an absolutely vital biogenetic mechanism. Humans, African humans in particular, would not exist and function as spirit-based

beings without the transposing role/function of the melanic system or what Azibo (2011, 2018) calls biological blackness.

Azibo (2011, 2018) also observes that the melanic system/biological blackness, apart from its transposing role, refines and enhances the functioning of the autonomic nervous system. The nervous system, for instance, responds to attacks on the body by disease causing micro-organisms, including those which cause malaria, by mobilising its natural defence equipment-antibodies- to protect the health /balance of the body (Akbar, 1996; Buynan, Brown, king & Moore, 2015). It is the melanic system/biological blackness which refines and enhances the nervous system's response in the fight against disease and other life threatening circumstances. Melanin/biological blackness thus plays a critical-role in the body's fight against disease including malaria.

The critical role of melanin/biological blackness in the body's fight against disease implies that there is certainly a racial element in all this which cannot be ignored. Human biological development and growth, in general are influenced, inter alia, by melanin. Stewart (1996) has, for instance, observed that African/Black infants manifest a faster and enhanced psycho-motor-intellectual development compared to white infants because of the presence of melanin/biological blackness in their bodies. Africans, compared to depigmented Whites, have high levels of melanin/biological blackness in their bodies. It is therefore not unreasonable to expect different behavioural responses and attitudes between Blacks/Africans and Whites towards development, health, disease and malaria. The appropriateness and effectiveness of a model for the control and elimination of malaria will be enhanced by factoring in this racial dimension in its construction. It is in fact disingenuous to create a model based on the view that all human beings-Whites and Blacks- are the same in their nature and response to health and disease.

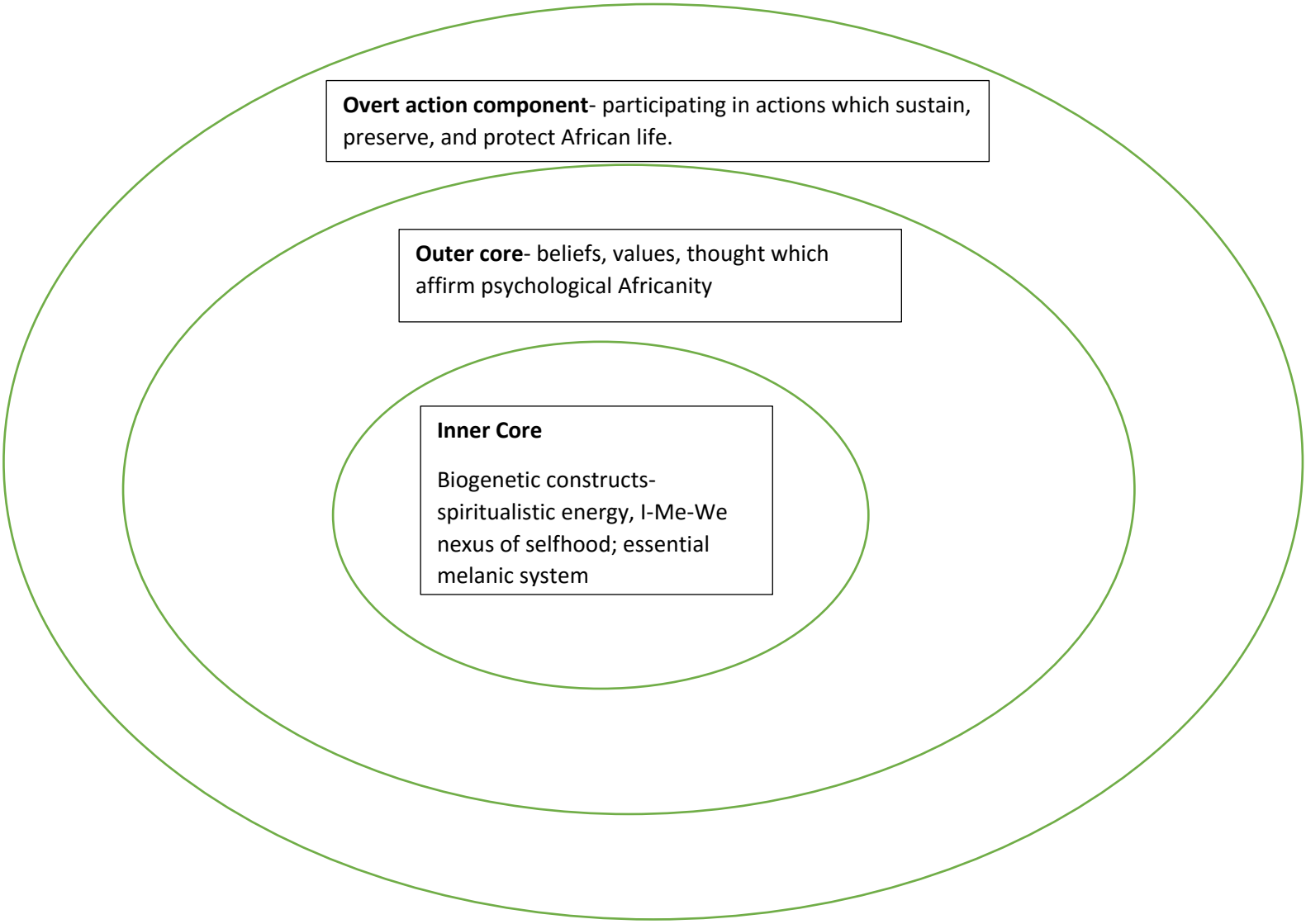
A deeper grasp of the significance of the African being-at-the-centre of the model for the control and elimination of malaria, considering the above, can be realised if Azibo's (2018) African-centred conceived tripartite structure of the nature of African human nature (African personality)is unpacked (Refer to Figure 6.2). The structure is as follows: a) the unconscious

biogenetic level constructs/concepts, b) conscious level constructs/concepts involving mental implicit cognitive behaviour, and c) action level overt behaving. The base of African personality can be seen as spiritualistic energy actualised with rhythm extending self into the racial collective through the essential melanic system. The base imbues African beingness and teleological becomingness (the purposefulness and directedness of the African self). Both African beingness and becomingness encompass and influence mental-implicit/cognitive and overt behavioural phenomena that come along with the biogenetic base. Each of the three levels is correlated with a phylogenetic-based psycho-behavioural propensity. Phylogeny in this case references psycho-behavioural dictates African humans must meet for species survival in all areas of people activity including health delivery. The following are the phylogenetic-based propensities: a) own-race bias (ORB) which correlates with the unconscious biogenetic level entailing a natural, inherited trait or instinct based in species evolution to be predisposed with a positive and survivalist orientation towards organisms with which the person shares biogenetic commonality relative to organisms of perceptively lesser biogenetic commonality, b) own-race preference (ORP) which correlates with the self-conscious mental-implicit/cognitive level entailing a partiality or favourability towards organisms and artifacts associated with these organisms which share perceptively greater biogenetic commonality, and c) own race maintenance (ORM) which correlates with the overt behaving level entailing an inhered imperative of humans for the sustention, defense, preservation, and development of organisms of biogenetic commonality relative to organisms of perceptively different or lesser biogenetic commonality. This involves a positive bias towards the biogenetically common not an anti-bias towards the biogenetically dissimilar.

To provide further clarity to the tripartite structure just described Azibo (2018) refers to ORB as the inner core, ORP as the outter core and ORM as the action component of the African personality. The inner core refers to those bodily parts and mechanisms through which the biogenetic constructs comprising the inner core operate. Such constructs, for instance, are spiritualistic energy, I-Me-We nexus of selfhood, and the essential melanistic system/biological blackness. These constructs are thought of as acting through the inner core-the biogenetic base. The outer core refers to cognition and ideation such as beliefs, values, and attitudes and thought which affirm self-extension or psychological Africanity. The action component refers to the overt manifestation of psychological Africanity meaning actual participation in/doing/engaging

in psychological Africanity beyond cognitating/thinking about it. Figure 6.2 is a diagrammatic clarification of the nature of African human nature from an African-centred perspective,

Figure 6.1 Structure of the Nature of African Human Nature



Source: Adapted from Azibo (2018)

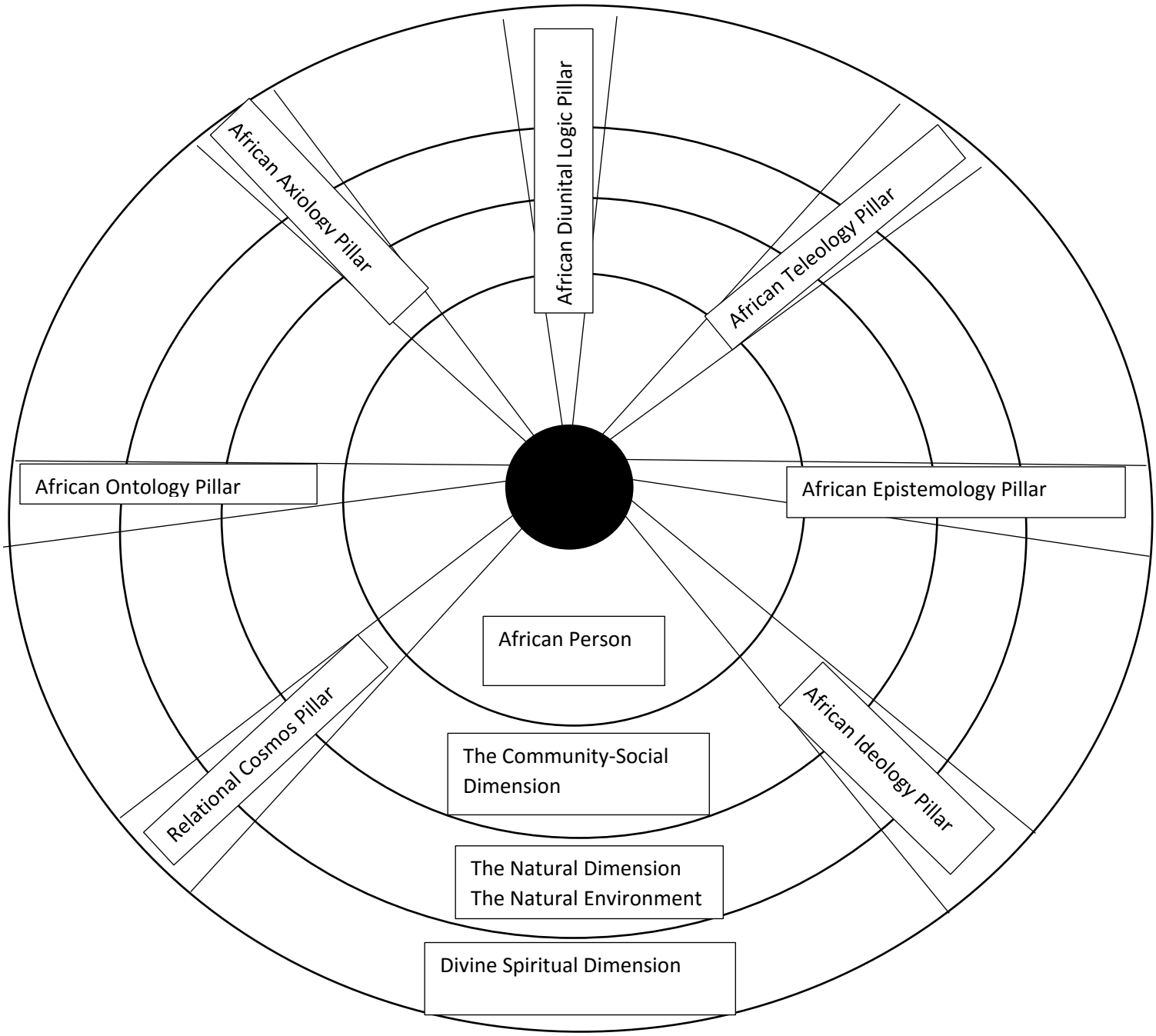
□

The inner core is inalterable and immutable. It comes with genotype. It is the essense of the African person. The inner core is transposed to the outer core under natural and normal circumstances in the form of African–centred beliefs, attitudes, values and thought. However, under conditions of Caucasian conquering and colonialism, mentacide (destruction of the

African mind) and psychological misorientation may result. The overt action component which manifests psychological Africanity under normal conditions may under abnormal conditions (colonial oppression) actually lead to actions which sustain the values and interests of the conqueror.

What is implied, with regard to the nature of the outer and the action component, is that these two levels are vulnerable to distortion via the ecological environment in which the African negotiates life. The development of the two levels cannot be taken for granted. The imposition of alien domination may actually lead to the outer core and action component to contradict the psycho-behavioural survival dictates of phylogeny. This situation must be factored in by creators of development programmes including the programme for the control and elimination of malaria. The creators should should conceive of such programmes as also corrective and restorative. The model for the control and elimination of malaria must be imbued with a corrective and restorative orientation and trajectory.

Figure 6.2 Cultural Pillars and Structure of the Model



It must be noted that the seven pillars (Figure 6.2) represent the tenets of the African reality structure. They are fundamental elements which define the model as African. They represent the way Africans make sense of their surroundings; make sense of life and the universe. All unpolluted Africans make sense of life and the universe guided by these. All African norms, values, ideals, languages, knowledge, political systems, economic systems, as well as assumptions about health, disease, malaria, and mosquitoes derive from and encode these

tenets/pillars. The pillars are central, necessary and sufficient for a programme-its contents, processes and activities- meant to control and eliminate malaria in an African community.

Already in this study, the ontological, diunital logic, axiological and epistemological pillars have been explained. We need to explain the pillars of teleology and ideology. The teleological pillar of African thought entails the sense of directedness and definite purpose which can be understood through the sense of commitment and extended investment which characterises the African notion of self (Carroll, 2008; 2010). The ideological pillar is related to teleology. Rather than focusing on material needs and interests, African ideology focuses mainly on spiritual development. Maat and Nommo discussed earlier on are central features of African ideology. It is necessary to emphasise that these African tenets of the deep structure of African culture must be taken on board in the planning, construction, implementation, monitoring and evaluation of any activity of the programme and the entire programme. It must be noted that African-centeredness produces a model which is dynamic. In an environment which has experienced colonial deAfricanisation and dehumanisation, the model can conscientise African people to reclaim their psycho-cultural integrity and authenticity. The table below (Table 6.1) provides a summary of what is entailed in the pillars and the fundamentality of their difference with Eurocentric approaches.

Table 6.1: Difference between African and European Structure (A Summary)

	African Reality Structure	European Reality Structure
Ontology (Being and reality)	Reality is matter and spirit at once; matter is a manifestation of spirit; unity of being.	Reality is material/matter; only that which is observed by the five senses is real. Nothing beyond the material.
Epistemology (Grounds for knowledge)	Affect-symbolic imagery cognition; immersion; participation; feeling/affect is important; spiritual knowing.	Object-measure cognition; detachment; distancing; suppression of affect/feeling.
Axiology (values)	Highest value is in positive interpersonal relations; Harmony with nature; communalism; cooperation.	Highest value is in the object/acquisition of objects; mastery-over-nature; individualism; competition; separateness.
Cosmology (Structure of the universe)	The universe is an interconnected and interdependent edifice; communal universe.	Independence; separation; disconnectedness of phenomena.
Logic (Criteria of validity in reasoning)	Diunital; both/and logic; something apart and united at the same time; complementarity of duality.	Dichotomous logic; either/or logic; rigid oppositions; dichotomy between matter and spirit.
Teleology (End/purpose)	Sense of directedness; sense of definite ends; sense of definite purpose.	Life for life's sake; knowledge for knowledge's sake.
Ideology	Ideology of liberation; psychic-cultural reclamation; Maat.	Ideology of domination; supremacy; expansion; progress.

(Sourse: Adapted from Azibo (2018) and Carroll (2008, 2010)

It may be noted that programmes/ models of development would necessarily be different. Africans have always resisted or rejected Eurocentric models in solving their problems.

6.4.3 A Summary of the Principles and Coordiates of a Centred African Model for Control and Elimimating malaria

6.4.3.1 Introduction

It is absorlutely important to note that the experiences and practices of the *Ba-Pedi* and *Va-Tsonga* of Dan Village in relation to critical issues of health and diseae are an integral part of their history and culture and therefore part of their identity which ultimately derives from the biogenetic-phylogenetic grounding of their existence. The African identity of the *Ba-Pedi* and *Va-Tsonga* and its biogenetic-phylogenetic groundness must be a central consideration in the construction of a model meant to secure and enhance their life and life changes in all areas of people activity including health delivery. Failure to consider the unique identity of African people in constructing models and programmes meant to help them (Africans) based on the incoherent and nonsensical notion that all human beings are the same in their nature has contributed to the ineffectiveness and eventual collapse of such programmes.

6.4.3.2 Principles and Coordiantes

Azibo (2017, 2018) has reminded us that to understand the nature of African human nature, two parts of this nature must be distinguished-that which is phylogenetic and that which is ontogenetic. The phylogenetic part references the psycho-social-behavioural dictates which Africans must meet for species survival such as procreating, protection, securing health or otherwise securing material existence across all areas of people existence. The ontogenetic part references personal predilections are organised indiosyncratically in an individual as a function of his/her unique developmental history. We must note, though, that whatever an individuals development history may be the ontogenetic part is not preeminent to, but meant to serve the phylogenetic collective part in African-centred deep thought about the nature of African human nature.

The biogenetic substratum of African nature is naturally endowed with or equipped with survival and life mainatenance mechanisms garnered in evolution or phylogeny. The propensity for survival, self-preservation, protection of self against life threatening organisms and environment including disease is innate and naturally endowed and instinctual. The biogenetic level is unconscious; but when transposed to the conscious mental-implicit/ cognitive level and action level behaving, as per structure of the African personality (Azibo, 2018), a survival thrust

in which the African human orienteers in a manner which prioritises the sustension, preservation, protection, and development of African life and culture emerges (Azibo, 2015, 2017, 2018). Furthermore, the African survival thrust unfolds on the basis of and within the parameters of an African worldview and ethos portrayed in Table 6.1.

On the basis of what is known accordent about the nature of African human nature and the quality of thought and practice (AIK) in general and about the *Ba-Pedi* and *Va-Tsonga* of Dan Village in particular, as per this exploratory study, the following minimum pronciples and coodinates must ground a model for the effective control and elimination of malaria on Dan Village:

- The *Ba-Pedi* and *Va-Tsonga* of Dan Village are naturally endowed and innately equipped with the propensity to preserve and protect life; a propensity which is rooted in biogenetics and phylogeny. The propensity to fight against malaria to preserve and protect life is naturally and innately endowed.
- Transposed to the mental-implicit/cognitive level and action behavioural level a survival thrust composed of African-centred ideas, concepts, attitudes and practices (AIK) has emerged. Thus we have African-centred diagnostic and healing practices rooted in the common irrefragable worldview of the *Ba-Pedi* and *Va-Tsonga*. The diagnostic and healing practices related to malaria are African-centred as they combine the spiritual and physical/material dimensions of disease.
- If the innate propensity for collective protection and preservation of life against malaria is no longer evident in the cognitive structures and manifest behavioural modalities of some people in Dan Village, this is because of the imposition on these people of an anti-African Caucasian reality structure. The implication of this is that programmes designed to control and eliminate malaria must also incorporate corrective and restorative elements designed to relocate the dislocated African people to their indigenous cultural values, ideals, and practices (AIKS).
- The AIK that the diviners, herbalists and elderly men and women of Dan Village hold about maaria as well as that Caucasian knowledge which enriches and enhances the power of AIK and is thus not incongruous with that deep structure of African culture must constitute the foundation of any programme for the control and elimination of malaria. All Western methods designed to control malaria such as chemical sprays must be scrutinised and evaluated from an African-centred perspective to ensure that the collateral damage- damage of other innocent life forms- is avoided. It must be

remembred that the African approach to nature is based on the principle of human-nature, unity or harmony while as antagonism/domination over nature is the Caucasian approach (Carruthers, 1999; Baldwin, 1980).

- Cooperation with Western medical establishmentarianism which, according to Szasz (2002) and Welsing (1991), assists the state/government in the social control and domination of the population must be on the basis of equal power in all processes related to the control and elimination of malatia. The notion that the Western constructed medical establishment is mainstream and universal which inferiorises African indigenous indigenous health knowledge and practice must be "put out to pasture". All medical knpwledge and practices are culturally constructed and based (Azibo, 2018). Eurostream-medical knowledge must be viewed as existing side by side with other streams-Afrostream and Asiastream-without hierarchy.
- The creation, implementation, and evaluation of the programmes for the control and elimination of malaria must involve the active participation and ideation of IK holders in Dan Village. The IK holders must be treated as self willed agents in control of their minds and bodies instead of peripheral dwellers in someone else's medical knowledge and practice. Ideally such programmes must be owned by the Dan Village community since it is their life which is at stake and not the life of some western trained doctor or nurse in the national health bureaucracy.
- Describing the proposed model as racial African is legitimate as the people of Dan Village are overwhelmingly racially African. The important implication of this claim is that current Eurasian/White descendants of Dutch and British settler colonialists, invaders, interlopers, immigrants are not covered by this model. However, some scholars might argue that race is not real. They share the quest to denaturalise race as a signifier of human difference and are against the use of race as a paradigm in modern day constructs. They also claim that the use of race as a paradigm leads to racism. These scholars' claims are, unfortunately, wrong. It was noted earlier on that melanin or what Azibo (2011, 2018) calls biological blackness plays an important role in the psycho-cultural and psycho-behavioural modalities of humans. Several scholars' investigations (Diop, 1974; Bradley, 1981, 1992; Finch, 1991; Tarharka, 1979; Welsing, 1991 and others) confirm Azibo's observations. They note that the depigmentation (demelanisation) of the African homo sapiens sapiens, during the Mid-Wurmian Ice Age who had migrated to Eurasian during the WurmI Interstadal led to the creation of

> the Caucasian/White race. This transformation may have accured as early as 50, 000 BCE. Before that there were no Caucasians/Whites on this planet. Welsing (1991) observes that this race is the only one responsible for the development of global racism which has impacted all areas of people activity. Bradley (1981, 1992), himself a Caucasian, has insightfully argued that most of the crises afflicting planet earth todaystem from Caucasian values, behaviours, and psychology which emerged during the Mid-Wurmian Ice Age.

Furthermore, it is incorrect to assume that those, like Azibo, Diop and this researcher, who deploy the category of race to make sense of some critical elements of human behaviour as well as human responses to the environment including disease are racist. Chinweizu (1987) has observed that something can be racial without being racist. For something to be racist, it must not only be racial but also proclaim the superiority of some race over others. Apartheid, for instance, was/is racist. On the contrary the model which is being proposed focuses on psycho-cultural thought and practices (AIK) of African diviners, herbalists and the elderly in relation to the control and elimination of malaria is not racist but only racial. It claims what is legitimately African and secures a correct valuation of it. And whether this model will or will not work for Afrikaners and English settlers in South Africa as well as Indians are questions which can be settled only through practice and research.

Race is real. This must not upset anyone. The state of the art knowledge about the human genome confirms this (Azibo, 2018). The researcher boldly asserts that programmes for the control and elimination of malaria must take on board the cultural and racial realities of people involved and concerned.

6.4.5 Conclusion

> In the animal kingdom, the rule is eat or be eaten. In the human kingdom, the law is define or be defined.
>
> [Thomas Szasz, 2002 cited in Azibo, 2018]

Thomas Szasz (2002) whose work in Psychiatry has exposed the slavery that exists in Western health establishmentarianism in general has correctly observed that a critical part of the

condition of freedom is the ability to define yourself. In African-centred scholarship freedom involves the ability to conceptualise the world in a manner which is contiguous with your historical and cultural traditions and literacy the implementation of that freedom in solving problems in the here and now. This does not, however, mean that ideas and concepts which have emerged in foreign histories and cultural traditions may not be used in African-centred models of development. They may be used only if they are not incongruous with the deep structure of African culture which constitutes the irrefragable foundation of African identity. Any model for the control and elimination of malaria which is constructed on ideation rooted in the anti-African Caucasion reality structure is oppressive and must be rejected because it does not foster freedom and literacy. Tip-toeing on this position is forbidden.

In this chapter, it is clear that there is symmetry between the objectives of the study and the findings. The broad cultural notions which have emerged indicate that the control and elimination of malaria to be successful must be based in the sacred worldview of the people of Dan village. The deviners and herbalists in particular have a deep empirical and spiritual knowledge of the symptoms of malaria. The same is the case with the knowledge of indigenous plant species used for the control and elimination of malaria. The principles of the model which has been developed in this study are rooted in the deep structure of the culture ff the *Ba-Pedi* and *Vha-Tsonga*.

6.5 RECOMMENDATIONS

6.5.1 Future Descriptive and Explanatory Research Warranted

This study was essentially exploratory. This is why the outcomes are cast in the form of broad notions, conceptualisations and dispositions regarding the IK of diviners, herbalists, and elders hold/have about the control and elimination of malaria in the village of Dan. An exploratory study in the view of Babbie (2010) and Pellerin (2012) cannot be expected to come up with definitive outcomes on the problem under investigation and scrutiny. Definitive outcomes can only emerge when descriptive and explanatory social science research traditions are deployed to tackle the problem identified and clearly. This is why the researcher recommends that descriptive and explanatory studies must be carried out.

6.5.2 Creation of a Programme for Control and Elimination of Malaria

Based on the findings of this study, the researcher recommends that creators/constructors of programmes for malaria control and elimination in African communities must utilise relevant elements of both the surface structure and deep structure patterns of interpreting reality (ontology, cosmology, logic, axiology, teleology etc.) of the culture of African people in creating such programmes. Borrowing from those cultures which have oppressed and dehumanised Africans must be treated with extreme caution. African scholars who have studied the culture of the Caucasian oppressor (Ani, 1994; Welsing, 1994; Carruthers, 1999; Diop, 1991; Azibo, 2018) have observed that every major idea and programme which emerges from the mind and culture of the oppressor are designed to consolidate and perpetuate oppression. Africans must advance by methods of their own. Any borrowing from alien cultures must not be incongruous with the deep structure of African culture.

6.5.3 Escape from the Trap of Epistemological Racism

Epistemological racism is a category of racism which emerges when theory, research and practice (TRP) meant to solve African problems (malaria) is derived from Eurasian socio-cultural history. This inevitably leads to category mistakes and transubstantive error. These are errors and mistakes of meaning occurring when the "phenomenon being studied is comprehended with a set of cognitions which do not parametirise it…" (Azibo, 2011:79; also Vide Ryle, 1949). To escape from this pernicious trap, culturally and racially African-centred TRP is required.

6.5.4 A Programme Owned by the User

The actual and aspired interests of diviners, herhalists and elderly women and men of Dan Village relative to health and disease (malaria) must constitute the grounding coordinates of a programme that serves and sustains their survival and welfare including health. The programme must, at the most fundamental level of conceptualisation, implementation, and evaluation be owned by the deviners, herbalists, and elderly, who, in African culture, are custodians of the culture of the *Ba-Pedi* and *Va-Tsonga*. Others (Western-trained doctors, nurses, health practitioners) are advised to work within the cognitive structures generated by these custodians of African spiritual cultural heritage

6.5.5 Re-Thinking the Nature of African Indigenous Knowledge

In the light of the very problematic conceptualisation of AIK by "experts" as knowledge which is "local and geographic-site specific" and "traditional" a conceptualisation which is

Eurocentric and which actually inferiorises it compared to European knowledge-the researcher recommends reconceptualisation from the irrefragable African centre guided by African deep thoughts. When thinking becomes African-centred an audacious epistemology comes to the fore and spirit-based thinking which defines AIK as essentially sacred Afrisporan/PanAfrican science in search for meaning in a universe which presents itself as sacred, steps to the front boldly and without apology.

6.5.6 Revisiting Policy in the AIK sector

The key question is: whose reality structure frames AIK policy? If it is found that an alien reality structure (Caucasian) underpins AIK policy, then reframing from an African centre becomes an urgent necessity. If this is not done South Africans who are racially African will continue to be trapped in unfreedom and illiteracy. And malaria will not be controlled and eliminated in Dan Village.

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APPENDIX A

DATA COLLECTION INSTRUMENT

All interviews were conducted after all cultural protocols have been observed

Indigenous knowledge holders (Diviners, herbalists and healers)

General questions

1. **General questions**

The worldview of an indigenous knowledge holder

i. Can you please describe the cultural steps or processes you experienced to be/qualify as a professional
ii. If the process involved communication with spiritual realm-God, ancestors etc., describe how such communications unfolded.
iii. Were there any facilitators- other people/ cultural objects/materials?
iv. What would you say is the most important aspect of your human-beingness as a professional-spirit, mind, and body? That which drives you; motivates you?
v. Let us talk about the relationship between the invisible spiritual realm and the visible material realm. Which of the two realm has the most power/ influence on your thought and behaviour as a professional?
vi. What is health?
vii. What is illness and disease?
viii. What is death?
ix. Does everyone become an ancestor when they die?
x. Do ancestors promote the health of their family members? How?
xi. Can ancestors cause illness/disease? Under what circumstances? How?
xii. As a professional health care practitioner, what spiritual causes, if any, have you observed or diagnosed in your patients?
xiii. What about non-spiritual causes? Can you provide information about a case with non-spiritual causes you diagnosed?
xiv. How do you identify and apply cures to for your patients, spiritual and non-spiritual?
xv. What do you do to prevent he occurrence and spread of diseases in the community?
xvi. What has been the impact of the spread of western medical practices on IK and your profession>

xvii. What has been the impact of government in your profession during the apartheid and post-apartheid era?

xviii. What would you say is the general attitude of your community members towards indigenous knowledge and health practices?

xix. Are you prepared to work with corporate western world practitioners in promoting the health of your community?

xx. If yes, how can such corporation be organised and operationalised?

2. Indigenous knowledge of the causes of malaria.

i. What is malaria?

ii. What do you know about this disease?

iii. What are the causes of malaria?

iv. How do you diagnose malaria

v. How do you differentiate malaria from other illnesses that share symptoms with malaria?

vi. Can malaria kill a person?

vii. If so, in what are the conditions that in malaria that can lead to death?

3. Methods of malaria transmission.

i. Is malaria infectious?

ii. How does one become infected?

iii. Is malaria contagious?

iv. Explain how long it takes for symptoms to start showing after infection.

v. Can malaria be transmitted from person to person?

vi. If so, explain how?

vii. Which medication do you use to prevent further transmission?

viii. As an indigenous health care practitioner, is there any plant derived medicine that you use to control the transmission of malaria?

ix. If so, name that plant species that are used to control the transmission of malaria.

4. Knowledge of the cure of malaria.

i. Is malaria curable?

ii. Name the mechanisms of curing it.

iii. Which indigenous plant-derived medicine are used for the prevention and cure of malaria?

iv. How is the plant-derived medicine administered?

v. Take us through the preparation methods of the plant-derived medicine.

vi. What is being done in the community to motivate people to seek medical care early for Malaria?

vii. Take me through the financial implications of using medical service for Malaria as compared to the use of indigenous medicine.

viii. Explain who, between men and women, who seeks treatment immediately after presenting malaria symptoms

ix. Where do people prefer to go first when they suspect Malaria

5. **Determine the indigenous practices in the prevention of malaria.**

i. Can malaria attack be prevented?

ii. Explain how malaria prevention is effective in combating the disease

iii. Take me through the indigenous practices in the prevention of malaria

iv. What are the names of plants used in the prevention of malaria

v. Explain how the prevention medicine is prepared

vi. Explain how the prevention medicine administered on patients.

vii. What is being done to preserve the lifespan of the medicinal plants used in the treatment of malaria?

viii. As an indigenous health care practitioner, do you have any harvesting rules in harvesting to ensure preservation of such plants? explain

6. **An outline of the symptoms of malaria**

i. What are the symptoms of malaria?

ii. Explain how you differentiate malaria from other diseases based on symptoms.

iii. Explain how long you seek treatment from the first sign of symptoms.

iv. How is the information around malaria being preserved for the future generation

7. **Determine the potential use of indigenous perceptions, prevention and cure of malaria as part of the interventions to eliminate and control malaria.**

I. From the community knowledge what can be done to eliminate malaria?

II. In your opinion how can the prevention strategies be strengthened to ensure the elimination of malaria?

III. How can the treatment mechanisms be strengthened to ensure the complete elimination of malaria in the community?

IV. What methods of preservation do you suggest can prolong the lifespan of the practices of prevention and treatment?

8. **Elderly residents of Dan village with general cultural knowledge of malaria**

i. Has anyone in the family suffered from malaria in the past years? If so, please share the experience.

ii. Have you heard about malaria before? Where did you hear about it?

iii. What are the main signs and symptoms of malaria?

iv. Do you think malaria can be prevented? If so how?

v. If malaria is not treated, can it kill you? Under what circumstances?

vi. Do you think malaria is still a problem in your area? Please share the experience.

vii. Do you think it is important to seek treatment when suspect that you have been infected with malaria? Why?

viii. Do you think it is important to allow spray operators to spray house structures? Why?

KAROLO YA A

Ditlabela tša dipotšišotherišano go kgoboketša tshedimošo

Dipotšišotherišano ka moka di dirilwe morago ga go latelwa melao ya setšo

Bao ba nago tsebo ka ga tlhago (Didupe le dingaka)

Dipotšišokakaretšo

9. Dipotšišokakaretšo

Ka fao lefase le lebelelago ditsebi tša tlhago

i. Na o ka hlaloša dikgato tša setšo goba tshepedišo yeo o itemogetšego yona gore o fihlelele go ba setsebi
ii. Ge eba tshepedišo e akareditše dikgokaganyo tša semoya le Modimo, badimo bj.bj., bontšha ka mokgwa woo dikgokaganyo tšeo di bilego ka gona.
iii. Na go be go ena le basepediši- batho ba bangwe/ ditlabakelo le didirišwa tša setšo?
iv. A o ka re ke eng yeo e lego kokwane ye bohlokwa yeo e hlohleletšago semoya, bjaša le mmele wa gago?
v. A re boleleng ka tswalano magareng ga lefase la tlhokapono la semoya le la senama la go bonwa. Gare ga mafasemabedi ao, ke lefe leo le nago le maatla goba tlhohleletšo kgopolong le maitshwarong a gago bjalo ka motho wa porofešene?
vi. Kalafo ke eng?
vii. Bolwetši ke eng?
viii. Lehu ke eng?
ix. A e ka ba motho yo mongwe le yo mongwe o ba badimo ge a seno hlokofala?
x. A na badimo ba kaonafatša kalafo ya maloko a malapa a bobona? Bjang?
xi. A na badimo ba kgona go hlola bolwetši? Ka fase ga mabaka afe le gona bjang?
xii. Bjalo ka moalafi wa porofešene, ke ditlholo dife tša semoya tšeo o ilego wa di lemoga gareng ga balwetši ba gago?
xiii. A na ditlholo tšeo e sego tša semoya tšona? Efa tshedimošo ka ga bothata bjoo e sego bja semoya bjoo o ilego wa šogana nabjo.

xiv. Na o hlaola le go šomiša bjang dikalafi go balwetši ba gago, go lebetšwe malwetši a semoya le ao e sego a semoya?
xv. O dira eng go thibela tšwelelo le phatlalalo ya malwetši setšhabeng?
xvi. Ke seabe sefe seo se tlišitšwego ke tirišo ya dikalafi tša Bodikela go tsebo ya setšo le go mošomo wa gago?
xvii. Ke seabe sefe seo mmušo o bilego le sona mošomong wa gago nakong ya pušo ya kgatelelo le ka morago ga yona?
xviii. A o ka re ke mmono wa mohuta mang woo setšhaba sa geno se nago le wona mabapi le tsebo ya setšo le ditlwaelo tša kalafo?
xix. A o ikemišeditše go šomišana mmogo le ditsebi tša lefase la Bodikela go hlabolla kalafo ya setšhaba sa geno?
xx. Ge eba o a dumela, na tšhomišanommogo yeo e ka beakanywa le go tsenywa tirišong bjang?

2. Tsebo ya setšo ka ga ditlholo tša malaria

i. Malaria ke eng?
ii. O tseba eng ka ga bolwetši bjo?
iii. Na ditlholo tša malaria ke dife?
iv. O hlahloba bjang malaria?
v. O fapantšha bjang malaria le malwetši a mangwe ao a nago le dika tša go swana le tša ona (malaria)?
vi. Na malaria a ka bolaya motho?
vii. Ge eba go bjalo, ke diemo dife tša malaria tšeo di ka išago lehung?

3. Mekgwa ya phetetšo ya malaria

i. A na malaria a kgona go fetela?
ii. Na motho a ka fetelwa bjang?
iii. Na malaria a kgona go phatlalala?
iv. Hlaloša gore naa go tšea lebaka le le kaakang gore dika tša phetelo di thome go bonagala
v. Na malaria a ka fetela go tšwa go motho go ya go motho?
vi. Ge eba go bjalo, hlaloša gore bjang?
vii. Ke kalafi efe yeo o e šomišago go thibela diphetelo go ata?
viii. Bjalo ka moalafi wa setšo, na go ka ba go ena le mohlare woo o šomišwago go laola diphetetšo tša malaria?

ix. Ge eba go bjalo, efa mehuta ya mehlare yeo e šomišwago go laola diphetetšo tša malaria.

4. Tsebo ka ga kalafi ya malaria

i. Na malaria a alafega?
ii. Efa mekgwanakgwana ya go a alafa.
iii. Na ke meriana efe yeo e tšwago mehlareng yeo e šomišetšwago go thibela le go alafa malaria?
iv. Meriana yeo e tšwago mehlareng yona e hlotlwa bjang?
v. Re laodišetša ka ga mekgwa ya go šoga meriana yeo e tšwago mehlareng?
vi. Ke eng seo se dirwago mo setšhabeng go hlohleletša batho go tsoma tlhokomelo ya malaria ka bjako?
vii. Laodišang ka ga tshepedišo ya mašeleng ge go šomišwa tirelo ya kalafi go malaria ge go bapetšwa le go šomišwa ga meriana ya setšo
viii. Hlaloša gore na ke bomang magareng ga banna le basadi, bao ba tsomago thušo ya kalafo ka pela ge ba seno tšweletša dika tša malaria
ix. Na batho ba rata go ya kae pele ge ba seno gonona gore ba na le malaria?

5. Tebelelo ya ditlwaelo tša setšo go thibeleng ga malaria

i. Na tlhaselo ya malaria e kgona go thibelega?
ii. Hlaloša ka mokgwa woo thibelo ya malaria e kgathago tema twantšhong ya leuba le (malaria)
iii. Re laodišetšeng ka ga ditlwaelo tša setšo mabapi le thibelo ya malaria
iv. Ke mehlare efe yeo e šomišetšwang go thibela malaria?
v. Hlaloša ka mokgwa woo moriana wa thibelo o hlotlwago ka wona
vi. Hlaloša ka mokgwa woo moriana wa thibelo o šomišwago mo go molwetši
vii. Ke eng seo se dirwago go boloka nakophelo ya mehlarekalafi yeo e šomišwago go alafa malaria?
viii. Bjalo ka moalafi wa setšo, le na le melao ya go rema (mehlare) yeo e šireletšago mehlare yeo? Hlalošang

6. Tebelelo ya dika tša malaria

i. Dika tša malaria ke dife?
ii. Hlaloša ka tsela yeo le kgonago go farologanya dika tša malaria le malwetši a mangwe

iii. Hlaloša gore na le tsoma thušo ya kalafo ka morago ga nako ye kaakang ge le seno lemoga dika tša mathomo tša malaria
iv. Tshedimošo ka ga malaria e bolokelwa bjang moloko woo o tlago?

7. Kahlaahlo ya tšhomišopele ya dikgopolo tša setšo, dithibelo le kalafi ya malaria bjalo ka karolo ya maano a go fediša le go laola malaria

i. Go tšwa go tsebo ya setšhaba, ke eng seo se ka dirwago go fediša malaria?
ii. Go ya ka wena, na maano a thibelo a ka maatlafatšwa bjang go netefatša phedišo ya malaria?
iii. Na mekgwanakgwana ya kalafo e ka maatlafatšwa bjang go netefatša phedišo ya malaria mo setšhabeng?
iv. Ke mekgwa efe ya thibelo yeo o akanyago gore e ka tiišetsa nakophelo ya ditlwaelo tša thibelo le kalafo?

8. Badudibagolo ba motse wa Dan bao ba nago le tsebokakaretšo ya setšo ka ga malaria

i. Na e ka ba go na le yo mongwe ka lelapeng yoo a ilego a swarwa ke malaria mengwageng ya go feta? Ge eba go bjalo, hle re aleleng maitemogelo.
ii. A le ile la kwa ka ga malaria peleng? Le a kwele kae?
iii. A ke dika dife tše dikgolo tša malaria?
iv. A le gopola gore malaria a ka thibelega? Gona a ka thibelega bjang?
v. Ge eba malaria ga a alafege, gona a ka bolaya motho? Ka fase ga ditselana dife?
vi. A le gopola gore malaria e sa le tlhobaboroko motseng wa gabolena? Re abeleng maitemogelo ka kgopelo
vii. A le gopola gore go bohlokwa go tsoma thušo ya kalafo ge motho a gonona gore a ka ba a fetetšwe ke malaria? Gobaneng go le bohlokwa?
viii. A le nagana gore go bohlokwa go dumelela bafothedi ba seporei go fothela dikhutlo tša ngwako? Gobaneng?

XIYENGE XA A
Nongonoko wa mbulavurisano wo hlengeleta vuxokoxoko.

Mimbulavulo hikwayo yi endliwa endzhaku ka loko swilaveko hikwaswo swa ndhavuko swifikeleriwele eka vativi va vutivi bya xintu (Tin'anga, Nyamisoro na Swingoma-tandza).

Swivutiso swo angarela

1. **Swivutiso swo angarela.**

Mavavelo ya misava hi vativi va vutivi bya xintu.

(i) Hlamusela swi laveko swa ndhavuko leswi munhu a faneleka ku swi fikelela ku a va loyi a takoteke eka tirho lowu?

(ii) Loko kuve maendlelo lawa ya katsa mbulavurisano na swikwembu, ximoya kumbe swinwana. Hlamusela hi laha maendlelo lawa ya endlekaka ha kona.

(iii) Xana loko u tokota a kuri na valeteri, vanhu tsena kumbe switirhisiwa swa ndhavuko?

(iv) Tani hi munhu loyi a tokoteke, xana u nga vula ku hi xihi xiphemu xa nkoka eka tsako wa munhu-moya, miehleketo na mirhi? I ncini xiku hlohletelaka hlamulo ya wena?

(v) A hi burisani hi vuxaka bya xiphemu xa ximoya na xa xinyama. Eka swiphemu leswi mbirhi hi xihi xingana matimba kumbe hlohletelo wu kulu eka miehleketo na mahanyelo ya wena tani hi munhu loyi a tokoteke.

(vi) Xana rihanyu I ncini?

(vii) Xana vuvabyi na mavabyi I ncini?

(viii) Xana rifu I ncini?

(ix) Xana unwana na unwana a nga swi kota kuva mukwembu endzaku ka rifu ra yena?

(x) Xana swikwembu swi nga hlohlotela rihanyu eka swirho swa dyangu? Hi ndlela yini?

(xi) Xana swikwembu swi nga vanga vuvabyi kumbe mavabyi ke? Hi kwalaho ka yini? Hi ndlela yini?

(xii) Tani hi munhu loyi a tokoteke eka xiyenge xa mphakelo wa rihanyu, ximoya xinga vanga swinwana ke? Loko swiri kona xana u tshama u vona kumbu ku hlahluva xigulana xa muxaka wa lowo?

(xiii) Xana leswi swinga riku swa ximoya swi vanga yini? Paluxa vuxokoxoko bya leswi vangiwaka hi leswi swi ngariku swa ximoya loko uri karhi u hlahluva.

(xiv) Xana u swi vona na ku tshungula njhani swigulani hi tlhelo ra ximoya na raka ringari ra ximoya?

(xv) Xana u sivela njhani ku tumbuluka na ku hangalaka ka mavabyi etikweni?

(xvi) Xana ku hangalaka ka vutshunguri bya xilungu ku vile na xi ave xa muxaka wihi eka vutivi bya xintu na le ka tirho wa wena.

(xvii) Xana mfumo wu vile na xi ave xa njhani eka tirho wa wena hi karhi wa xihlawuhlawu na lowu hingale ka wona sweswi.

(xviii) Xana u nga ku matitwele ya tiko ra wena hi waha loko swita eka vutivi bya xintu na maendlelo eka timhaka ta rihanyu?

(xix) Xana u ngava u ti yimiserile ku tirhisana na mihlangana ya mabindzu ya xilungu ku hlohlotela timhaka ta rihanyu etikweni ra wena ke?

(xx) Loko hlamulo kuri ina, xana hlanganyelo lowu wu nga kunguhatisiwa ku yni na ku fambisiwa hi ndlela yihi?

2. **Vutivi bya xintu hi swivangelo swa malaria**

(i) Xana malaria I ncini?

(ii) Xana u tiva yini hi vuvabyi lebyi?

(iii) I ncini xi vangaka malaria?

(iv) Xana u ya vonisa ku yini malaria?

(v) Xana u ya hambanisa njhani malaria na mavabyi ya nwana lawa ya nga na swikombiso swo fana?

(vi) Xana malaria ya nga teka vutomi bya munhu?

(vii) Loko hlamulo kuri ina, hi swi hi swipimelo leswi swinga endlaka leswaku malaria ya hetelela ya vangile rifu?

3. **Tindlela leti malaria ya tlulelaka hi tona**

(i) Xana malaria ya tluleteka?

(ii) Xana munhu u tluleteka njhani?

(iii) Xana malaria ya nga tluleteka hiku khumbana na munhu loyi ya nwi khomeke?

(iv) Hlamusela ku swi teka karhi wo tani hi kwihi kuva swi kombiso swa malaria switi kombaka eka loyi ya nwi khomeke.

(v) Xana malaria ya nga tluleteka ku suka munhu unwana kuya eka unwana?

(vi) Loko hlamulo kuri ina, hlamusela ku hindlela yihi?

(vii) U tirhisa mirhi yihi ku sivela tluleto ku ya mahlweni?

(viii) Tani hi mutshunguri wa xintu , xana xi kona ximilana lexinga tirhisiwaka ku endla murhi lowu nga tirhisiwaka ku lawula matluletelo ya malaria?

(ix) Loko hlamulo kuri ina, paluxa swimilana leswinga tirhisiwaka ku lawula tluleko wa malaria?

4. **Vutivi bya matshungulele ya malaria**

(i) Xana malaria ya tshunguleka?

(ii) Paluxa tindlela to ya tshungula?

(iii) Hi swihi swimilana swa xintu leswi tirhisiwaka ku endla mirhi leyi sivelaka no tshungula malaria

(iv) Xana ximilana leswi swa mirhi switirhisiwa njhani?

(v) Hlamusela tindlela leti ximilani xilulamisiwaka ha kona ku endla murhi?

(vi) Xana hi swihi leswi endliwaku etikweni ku hlohlotela vaaka tiko ku kuma ku pfuneka hi tlhelo ra malaria ya nga se tikisa?

(vii) Hlamusela hi laha swiphiqo swa timali swe ngana xi ave eka vutshunguri bya xilungu loko byi ringanisiwa na bya xintu eka malaria?

(viii) Eka vaxinuna na vaxisanti hlamusela ku hi vaha lava ka hlulekaka ku kuma vutshunguri loko va vona swikombiso swa Malaria eka vona

(ix) Xana hikwini laha vanhu va tsakelaka ku sungula vaya kona loko va ehleketelela ku va va khomiwe hi Malaria?

5. **Paluxa maendlelo ya xintu ku sivela Malaria**

(i) Xana ku hlaseriwa hi Malaria swinga siveleka?

(ii) Hlamusela hi hala ku sivela ka malaria swingana nkoka eka ka lwisana na mavabyi lebyi?

(iii) Hlamusela maendlelo ya xintu yaku sivela Malaria?

(iv) Boxa mavito ya swimilani leswi tirhisiwaka ku sivela Malaria?

(v) Hlamusela hi laha murhi wo sivela wu lulamisiwaka ha kona?

(vi) Hlamusela leswi murhi lowu wo sivela wu tirhaka ha kona eka swigulana?

(vii) Xana hi waha matshalatshala lawa ya endliwaka ku hlayisa vukona bya swimilana leswi tirhisiwaka ku endla murhi wa Malaria?

(viii) Tani hi muphakeli wa rihanyu wa xintu, xana kuna milawu ya tshovelo leyi fambisanaka naku hlayisa swimilana leswi?

(6) Andlalo wo swikombiso swa Malaria?

(i) Hi swihi swikombiso swa Malaria

(ii) Hlamusela hi laha Malaria ya hambanaka na ya nwana mavabyi ku ya hi swikombiso?

(iii) Xana vuxokoxoko lebyi fambelemaka na malaria byi hlayisiwa hi ndlela yihi ku ta tirhisiwa hi rixaka leri taka?

(7) Hlamusela ku humelela ka ku tirhisiwa ka maendlelo ya xintu eka ku sivela na ku horisa malaria tani hi xiphemu xo nghenelela eka ku herisa no lawula malaria?

(i) Ku ya hi vutivi bya vaaka tiko ku nga endliwa yini ku herisa malaria

(ii) ku ya hi mavonelo ya wena, xana tindlela to sivela malaria tinga tiyisiwa hi ndlela yihi ku fikelela ku herisa malaria?

(iii) Xana tindlela ta matshungulelo tinga tiyisiwe njhani ku tiyisia ku herisa malaria hi vuenti etikweni?

(iv) Xana hi tihi tindlela ta vuhlayisi leti u ngati tsundzuxaka ku va tipfuna ku engetela vukona bya maendlelo yo sivela naku tshungula?

(8) Vutivi byo angarela bya ndhavuko bya vaduhari vale tikweni ra Dan hi malaria

(i) Xana ku vile ku ngava na loyi karhatiwaka hi malaria eka malembe lawa ya nga hundza endyangwini lowu? Loko swiri tano, hlamusela xiyimo xa kona.

(ii) Xana u tshama utwa hi malaria? U switwile kwihi hi wona?

(iii) Hi swihi swikombiso swi nkulu swa malaria

(iv) U vona onge malaria ya nga siveleka? Loko swiri tano hi ndlela yini?

(v) Loko malaria ya nga tshunguriwi, xana ya nga ku dlaya ke? Hikwalaho ka swivangelo swihi?

(vi) U vona onge malaria ka hari xiphiqo? Hlamusela vutivi bya wena

(viii) U vona onge swina nkoka kuva munhu a lava vutshunguri loko a ehleketelela ku va a khomiwe hi malaria? Hikwalaho ka yini?

(ix) U vona onge swina nkoka ku pfumelela va mufafazelo kuva va fafazela tindlu? Hikwalaho ka yini?

APPENDIX B
CONSENT FORM

I …… voluntarily participate in the project entitled **The use of Indigenous Knowledge and Perception of Malaria for improved Control and Elimination of Malaria in the Community of Dan, Limpopo Province, South Africa.**

Participation in the study is completely voluntary. If you decide not to participate there will be no negative consequences. Be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question. You will be asked to answer questions about the indigenous knowledge and perceptions towards malaria prevention and treatment among the cultures of Limpopo Province.

PARTICIPANT

By signing this form, I agree that I have read and understand the information above and I freely give my consent to participate in this project.

Signatures

Participant……. Date……

Witness…….. Date……

Researcher…… Date……

SEKGOMARETŠWA SA B
CONSENT FORM

Nna ke le ……ke ithaopa go tšea karolo ka gare ga sengwalwa seo hlogotaba ya sona e lego Tšomišo ya tsebo ya setšo/maitemogelo a setšo go fediša le go fokotša bolwetši bja letadi motseng wa Dan, Phorofenseng ya Limpopo nageng ya Aforika Borwa.

Go kgatha tema mo sengwalong se ke boithaopi fela. Ge o ka tšea sephetho sa gore ga o sa nyaka go tšwela pele go tšea karolo, go ka sebe le ditlamorago kgahlanong le wena. Ge o tšea karolo mo sengwalong se, o dumeletšwe go ka emiša go tšea karolo nako efe kappa efe ebile o ka no taboga tše dingwe tša dipotšišo tšeo o sa di kwišišigo gabotse. O tlile go botšišiwa dipotšišo mabapi le maitemogelo a gago gammogo le dikakanyo tša gagomabapi lebolwetši bja letadi go lebeletšwe phedišo le thibelo ya bolwetši bjo phorofensenf ya Limpopo.

Mokgathatema

Ka go saena lengwalo le ke a dumela gore ke badile ebile ke kwešišitše tshedimošo ya ka godimo ebile ke fa tumelelo yaka go tšea karolo.

Mosaeno

Mokgathatema…… Letšašikwedi……
Hlatse…….. Letšatšikgwedi……
Monyakišiši……Letšatšikgwedi……

University of Limpopo
Faculty of Humanities
Executive Dean
Private Bag)(1106, Sovenga, 0727, South Africa
Tel: (015) 268 4895, Fax: (015) 268 3425, Email:Satsope.maoto@ul.ac.za

DATE: 8 August 2019

NAME OF STUDENT: MALATJI, MK
STUDENT NUMBER: [200906113]
DEPARTMENT: PhD - Anthropology
SCHOOL: Social Sciences

FACULTY APPROVAL OF PROPOSAL (PROPOSAL NO. FHDC2019/7/7)

I have pleasure in informing you that your PhD proposal served at the Faculty Higher Degrees ——————— Meeting on 31 July 2019 and your title was approved as follows:

TITLE. THE USE OF INDIGENOUS KNOWLEDGE AND PERCEPTION OF MALARIA FOR A IMPROVED CONTROL AND ELIMINATION OF MALARIA IN THE COMMUNITY OF DAN,LIMPOPO PROVINCE, SOUTH AFRICA

Note the following:

Ethical Clearance	Tick One
In principle the study requires no ethical clearance, but will need a TREC permission letter before proceeding with the study	
Requires ethical clearance (Human) (TREC) (apply online) Proceed with the study only after receipt of ethical clearance certificate	✓
Requires ethical clearance (Animal) (AREC) Proceed with the study only after receipt of ethical clearance certificate	

Yours faithfully

Prof RS Maoto,

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 02 October 2019

PROJECT NUMBER: TREC/346/2019: PG

PROJECT:

Title:	The use of Indigenous Knowledge and Perception of Malaria for improved Control and Elimination of Malaria in the Community of Dan, Limpopo Province, South Africa.
Researcher:	MK Malatji
Supervisor:	Prof SA Rankoana
Co-Supervisor/s:	N/A
School:	Social Science
Degree:	PhD in Anthropology

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

Finding solutions for Africa