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Why patients patronize the services of traditional bone setters: A phenomenological analysis of lived experiences of patients in Volta Region, Ghana

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Abstract: The hospital is a well-organized social system which provides comprehensive healthcare to patients suffering from different diseases and illnesses. It has a well-structured administrative machinery, highly trained professionals/experts in different fields of medicine, and equipped with advanced medical technology. The hospital thus is an institution which provides comprehensive therapeutic services to all its clients including patients with fractures. However, it has been observed that despite the presence of numerous hospitals in the Volta Region of Ghana, many fracture patients continue to patronize the services of Traditional Bone Setters (TBS) in mending their broken bones. Using the qualitative method, this study investigates reasons why patients continue to patronize the services of traditional bone setters in spite of the presence of the hospital. The study reviews the literature by conceptualizing traditional bone setters, the practice of traditional bone setting, and the fundamental factors that undergird the patronage of traditional bone setters in Africa. The study uses the Four A Model as a theoretical framework and phenomenology as a data collection approach. The study finds that three categories of people patronized the services of traditional bone setters. In addition, the study finds the fear of amputation, fear of surgery, skeletal traction, social support system, good review processes, fast healing, and familiarity with the practices of TBSs as factors responsible for the patronage of traditional bone setters. The study concludes that traditional bone setters constitute key stakeholders in the healing of bone fractures in the Volta Region of Ghana and contribute tremendously to primary healthcare.

Keywords – Fracture patients, Ghana, Lived experiences, Phenomenology, Traditional bone setters

1. INTRODUCTION

According to Finch (1994: 1), "the term 'hospital' usually means any institution maintained for the reception, care, and treatment of those in need of medical, surgical or dental attention, being an institution which is not carried on for private gain." Indeed the hospital is a biomedical institution for healthcare, research, and training of medical professionals. It is a well-organized social system which provides holistic and comprehensive care to its clients. It has an organized administrative and bureaucratic machinery, highly trained professionals and experts in different fields of medicine, and advanced medical technology. In terms of expertise, the hospital is equipped with biomedical staff such as clinical nurses, midwives, pharmacists, dietitians, doctors (physicians/surgeons/dentists), physiotherapists, radiologists, speech therapists, laboratory scientists, and psychologists among others. These

trained professionals work together to deliver quality healthcare services to patients and to prolong life. Indeed, people who suffer fractures in Ghana patronize the services of professionals in the hospital to mend their broken bones. This is a result of the hospital's social system which has abundant expertise and medical technology to heal fractures. In spite of this, it has been observed that many fracture patients continue to patronize the services of traditional bone setters in the Volta Region of Ghana in the quest to find therapeutic solutions to their broken bones.

Traditional bone setting is a popular traditional medicine which has attained a level of success compared to modern medicine (Kassaye, 2006). The bone setting is an old medical knowledge which existed in the pre-colonial, colonial, and post-colonial times and has contributed to healthcare delivery and services since the turn of the new millennium (Wedam & Amoah, 2017: 24). Traditional bone setting is very popular among the rural folks and contributes to the treatment of non-acute fractures and dislocations (GSS, 2010; MoH, 2015; Friedman, 2004; Onuminya, 2004; Quansah, Afukaar & Salifu, 2001). This indigenous knowledge spread across many countries in Sub-Saharan Africa such as Ghana, South Africa, Nigeria, Ethiopia, and Togo among others. Due to the relevant roles played by traditional bone setters in providing primary healthcare (Wedam & Amoah, 2017) to their clients, many people in Africa patronize their services. As Thanni (2000) argued, traditional bone setters are caregivers who enjoy higher patronage and confidence than any other group of traditional healers in Africa. Interestingly, it has been observed that in Ghana, about 78 percent of all patients with fractures resort to traditional bone setters for care (Kuubiere et al., 2013). This study interrogates the reasons for the high patronage of the services of traditional bone setters in Ghana, citing evidence from the Volta Region.

The study is guided by two objectives: first, to identify the categories of patients who patronize the services of traditional bone setters in the Volta Region; then to interrogate the factors/reasons that account for the continued patronage of the services of traditional bone setters in Volta Region. Accordingly, this study is organized into three thematic areas. Foremost, it focuses on the literature review. The review engages with the available literature on traditional healers in Africa, who bone setters are, the practice of bone setting in Africa, and the factors responsible for the continued patronage of their services. The study also discusses the *Four A Model* as a theoretical framework to enhance the understanding of health-seeking behaviour in society especially in relation to the patronage of bone setting. Secondly, the study discusses the methods and techniques adopted during fieldwork. Finally, and most importantly are the findings of this study which focus on the categories of patients who patronize the services of traditional bone setters and the factors/reasons that account for the continued patronage of the services of traditional bone setters in the Volta Region of Ghana.

The study finds fear of amputation, fear of surgery and implant of metal objects, concerns of the Plaster of Paris (POP), cost of treatment, the social support system, good review processes, fast healing, and familiarity with the practices of TBSs as factors responsible for the patronage of traditional bone setters. The study argues that certain fears and worldviews that people have constructed regarding the services of the hospital prevent them from patronizing the services of the hospital. Concomitantly, traditional bone setters who use indigenous knowledge, customs, traditions, beliefs, practices, and local technology resonate with the people thereby attracting many patients to patronize their services in mending broken bones. The study concludes that traditional bone setters constitute key stakeholders in the healing of bone fractures in the Volta Region of Ghana and contribute tremendously to primary healthcare. Thus, the government must work out modalities to integrate them into the mainstream healthcare system so that they can complement the services of orthopedists in the hospital.

2. LITERATUR SURVEY

2.1. Who are traditional healers?

Traditional healers are also known as Traditional Medicine Practitioners (TMPs) within the context of Africa. These healers existed long before the emergence of biomedicine (Hoff, 1997). These healers served as the gatekeepers to healthcare and were recognized by their communities (Onuminya, 2004) due to their immense contributions to responding to different illnesses and diseases. The World Health Organization -WHO (1978) defined an African

traditional healer as someone recognized by his own community to have the competence in using plant, animal, and mineral substances to provide health services based on social and cultural backgrounds. Similarly, Aries et al. (2007: 564) confirm that traditional healers are practitioners who are recognized in their communities for having the knowledge and competence to provide healthcare to clients by using herbs, animal, and mineral substances and other socio-cultural and religious processes to heal and promote the social well-being of the community. The African traditional healer was well recognized in the local communities, responding to the needs of both the rich and poor, men and women, children, and other people with different statuses (El Hag & El Hag, 2010: 401).

Scholars such as Thanni (2000) and Onuminya (2004) point out that there are over one million traditional healers in Africa. With this population, Richter (2004) puts the ratio of traditional healers to the general population to approximately 1: 500 while doctors are 1: 40,000. These statistics show that traditional bone setters are likely to have more time to attend to their patients as compared to the doctors in the hospital. Thus, many patients may want to patronize the services of traditional healers for quick and faster healing of their problems. In his studies in South Africa, Truter (2007: 59) argued that the presence of traditional healers, their use of local customs, beliefs, values, and norms to heal, and their cordial relationship with patients and their families attract people to engage in their services. Truter further pointed out that traditional healers use supernatural processes, culture, and customs to respond to the healthcare needs of the local people. These traditional healers include diviners, herbalists, spiritualists, traditional birth attendants, traditional bone setters, animal bite specialists, eye specialists, faith healers, and veterinary healers among others (Truter, 2007; Yusuf, n.d; Bodeker et al., 2007). However, the traditional healer who captures the attention of this study is the bone setter.

2.2. Who are traditional bone setters?

According to Singh et al. (2013: 19) "a traditional bone setter is a traditional practitioner of joint manipulation, who educates himself/herself from tradition and takes up the practice of healing without having had any formal training in accepted medical procedures." Bone setters specialize in managing dislocations, sprains, and simple, and complex fractures that require urgent attention (Osemwenkha, 2000). Kuubiere et al. (2015: 115) maintained that traditional bone setters manage musculo-skeletal injuries but indicated that their practice is sometimes associated with some complications. Dada et al. (2011) also indicated that black powder, splints, plant material, sheanut butter, and manipulation of bones characterize the work of bone setters in Africa. Traditional bone setters also use elaborate rituals to engage with divinities to connect to the healing of fractures (Thanni, 2000). This is done to request approval, guidance, and protection, and accelerate the process of healing of fractures. The services of traditional bone setters are accessible, cheaper, and provide quick results (Singh et al., 2013: 19). This phenomenon accounts for 70 to 80 percent of patronage of their services in Nigeria (Omololu et al., 2008) while 78 percent of Ghanaians who suffer fractures seek the services of these local healers. This health-seeking behaviour makes traditional bone setters key stakeholders in fracture management in Africa.

2.3. The practice and patronage of traditional bone setting

The practice of traditional bone setting is widespread across the world and Africa is no exception (Ogunlusi, Okem, & Oginni, 2007). In Africa, bone setting is a family practice handed over across generations (Dada et al., 2011). This practice is characterized by apprenticeship and observation (Rumum, 2014). The principal and common mode of immobilization is the application of a tight splint at the fracture site (Onuminya, 2014). The splint is produced from bamboo sticks, palm leaf, rattan cane, plywood, and any other hardwood (Eshete, 2005). Bone setting in Africa is embedded with some art, skills, knowledge, methods, and procedures implemented in the healing process (Akurugu, 2011). Bone setters thus provide useful therapeutic solutions to people with fractures. Mume (1973: 10), cited in Peter (2003) described the art of bone setting as follows:

> Bone setting is a specialized aspect of African traditional medicine….Many bone setters are specialists whose only medical interest revolves around orthopedics. The success achieved in the

> area of orthopedics by traditional healers has been so amazing that even the western orthodox medical practitioners have had to acknowledge the fact that traditional bone setters are better…hopeless cases are often referred from the hospitals manned by orthodox physicians to traditional bone setters. Positive results are often achieved by these traditional bone setters.

Aries et al. (2007) observed that there has been a considerable increase in the incidence of fractures in Ghana due to increasing urbanization. They argued that over-dependence on motor vehicles for carrying out daily activities has increased accidents and fractures in Ghana. Unfortunately, orthopedists are few compared to the local healers, thus, many fracture patients resort to the services of traditional bone setters. Wedam and Amoah (2017) suggested that due to the significant contributions of traditional bone setters in the area of primary healthcare, many people in Africa patronize them. WHO (2002) maintained that traditional healers occupy an important place in the Ghanaian healthcare systems and that fractures are often managed by bone setters who are readily available and well-known to their communities. Omonzejele (2003) and Salati & Rather (2009) suggested that traditional bone setters achieve faster results, they are easily accessible, and their services are affordable; for these reasons, many people patronize their services. The challenges with accessing medical services in Ghana also encourage people to take advantage of traditional bone settings (Mensah et al., 2005).

In their study of why patients patronized the services of traditional bone setters in Nigeria, Ogunlusi et al. (2007: 3) asserted that there were middlemen stationed at various hospitals in southeastern Nigeria and recommended patients to traditional bone setters once the opportunity arose. The study found out that 72.4 percent of patients patronized the services of traditional bone setters because they wanted cheaper and quicker services than modern orthopedic treatment. Similarly, Ogunlusi and his colleagues found the high cost of treatment, the cash and carry system, and bureaucratic delivery practices in the hospital as push factors for the patronage of traditional bone setters. From the same angle, Nwachukwu et al. (2011: 24) detailed their findings as to why patients patronized the services of traditional bone setters. They observed that the cost of orthopedic care, the implant of foreign objects, belief in supernatural powers of bone setters, convenience, flexibility with traditional care setting, familiarity with local culture, as well as beliefs of the bone setters, and lack of familiarity with modern orthopedic treatments constitute the reasons why patients patronized the services of traditional bone setters. The above extract points to the fact that certain factors influence people to seek healthcare services from traditional bone setters. Though the factors are many, it must be noted that they may differ from community to community, region to region and country to country. It is on the basis of this that this current study seeks to understand the reasons or factors that influence patients to patronize the services of traditional bone setters in the Volta Region of Ghana.

2.4. Theoretical framework: The Four A Model (FAM)

The *Four A Model* (FAM) is a public health model that seeks to shed more light on the factors that influence the health-seeking behaviour of people in society. This model has been widely used by medical geographers, anthropologists, and epidemiologists in explaining the key factors that influence access to healthcare and treatment. The FAM groups key determinants of health-seeking behaviour into 'Four A' namely: Availability, Accessibility, Affordability, and Acceptability. Hausemann et al. (2003: 14) argued:

> *Availability* refers to the geographical distribution of health facilities and pharmaceuticals; *Accessibility* includes access to transport and roads; *Affordability* relates to cost for the individual, household or family. A distinction is often made between direct, indirect and opportunity costs. *Acceptability* relates to socio-cultural distance. This mainly refers to the characteristics of the health provider – health workers behaviour, gender aspects and excessive bureaucracy etc.

Bagah (1995: 72) argued that the "usefulness of the theory lies in its emphasis on environmental and cognitive elements of behaviour." This model is applicable to this current study in a number of ways. First, traditional bone setters are readily available in the Volta Region of Ghana. They are found in communities such as Mafi Amegakofe, Mafi Kpedzeglo, Mafi Wukpo, Mafi Kpordiwla, Sokpoe, Agave Akplorti, Klefe Achatime, Dodome Dogblome, Gbi

Atabu, Akoefe Avenui and Akatsi Abadzivorkofe among others. Their presence and availability have the potential to influence patronage. Similarly, the availability of numerous herbs in the region facilitates the healing of bone fractures.

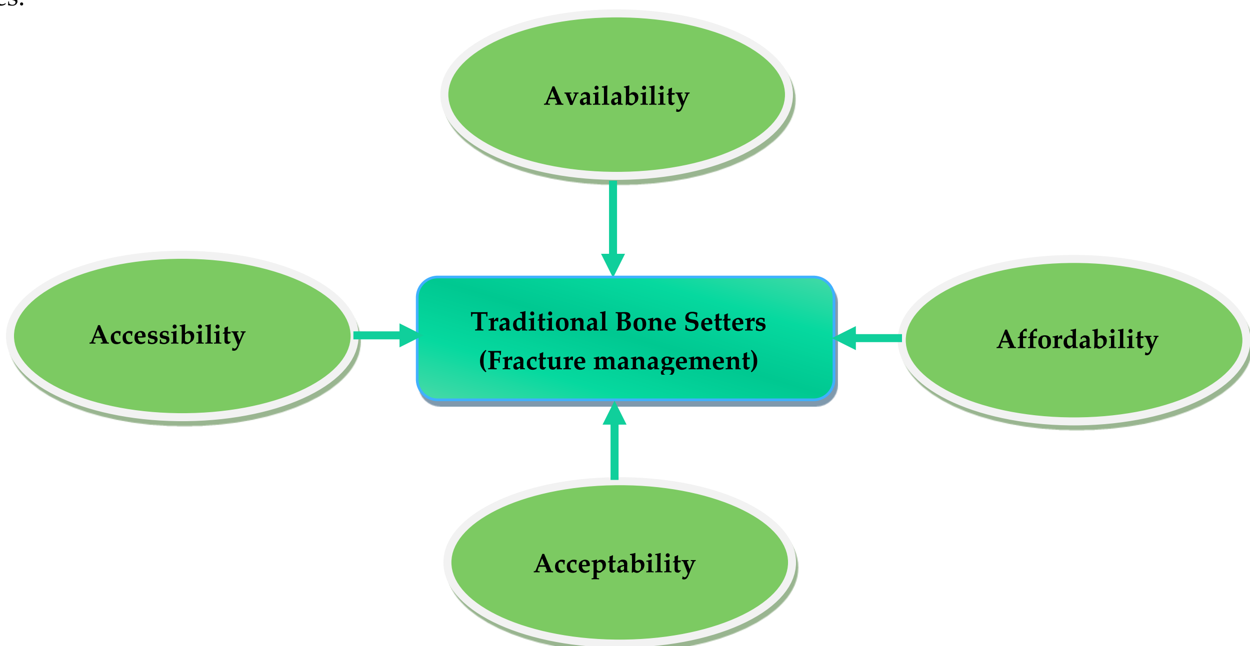

Figure 1: The Four A Model
Source: Author's own construct

Secondly, traditional bone setters in the Volta Region are readily accessible. These healers are closer to the people and there are numerous transport systems that facilitate easy movement to bone treatment centers. The relatively good nature of roads in the region makes it easy for people to travel from far and near to patronize the services of these healers. In addition, their services are affordable compared to the cash and carry system of the hospital. Finally, the practices of traditional bone setters are acceptable to the people as the skills, knowledge, art, methods, processes, and procedures of bone setting resonate with the customs, traditions, belief systems, and culture of the people. Thus, patients are familiar with the practices, unlike the hospital which operates in a different system using scientific knowledge which is far from the comprehension of the patients.

In exploring the relevance of traditional medicine to healthcare delivery in Nigeria, Yusuf (n. d.: 37) echoes the position that traditional medicine is less expensive than modern medicine, it is more accessible to a large proportion of the population, it has wider acceptability among the local people, and finally, the healers provide a congenial atmosphere and environment for healing. These viewpoints synchronise with the *Four A Model* in Nigeria. This study argues that the FAM is applicable in the Volta Region of Ghana, hence, the justification for its use.

3. PROBLEM STATEMENT

The problem that this study seeks to address is the fact that very little research has been conducted into the reasons that underpin the patronage of the services of traditional bone setters in the Volta Region of Ghana. Scholars such as Darimani (2007), Akurugu (2011), Kuubiere et al. (2013), Kuubiere et al. (2015), Aries et al. (2007), Wedam and Amoah (2017), and Hamidu (2018) have conducted various studies into traditional bone setting in Ghana. For instance, Darimani uses photography to document the art and practice of bone setting in Gwollu in the Upper West Region of Ghana. Similarly, Hamidu, Wedam, Amoah, and Akurugu all paid attention to the contributions of traditional bone setters to primary healthcare in the Northern part of Ghana. Kuubiere et al. (2013, 2015) focused on clavicular fractures and patients' preference for traditional bone setters in northern Ghana. First, it is observed that the majority

of these scholars did not pay attention to reasons that influence patients to seek the services of traditional bone setters. The only available scholarship into this domain is Kuubiere et al. (2015) who engaged with data on patients' preference for traditional bone setters in northern Ghana. While Kuubiere et al.'s work is very important to this current study, it is argued that their work is geographically limited to the northern region of Ghana, leaving other parts of the country in academic vacuity. Thus, this study fills this gap by adding new data and insights from the Volta Region of Ghana that is noted to be a host for numerous traditional medicine practitioners including traditional bone setters. This study is very significant as it contributes to the literature in the field of medical anthropology, especially in understanding health-seeking behaviour in the Ewe society.

4. RESEARCH METHODOLOGY

4.1. Design

Based on the ontological and epistemological aspects of research, this study is biased toward the constructivist and interpretivist standpoint (Hlovor & Botchway, 2021). According to Ugwu and Eze (2023: 20), "Qualitative research is concerned with the feelings, ideas, or experiences." To understand the feelings, ideas, or experiences of a group of people, a qualitative study gathers and analyzes non-numeric data (Bhandari, 2022). The approach is motivated by the fact that the researcher is interested in how individuals and groups of people perceive their environment, surroundings, and natural setting (Denzin & Lincoln, 1994). The rationale for using this method is that it provides an in-depth understanding of a social phenomenon, generates authentic data (Berg, 2004), and is flexible (Babbie, 2004) where the researcher is able to implement certain changes in the course of the study. Similarly, Muhoja (2024: 175) confirms that this method "...enables the researcher to gain an in-depth understanding from emic perspective…." and engages with multiple sources of data collection such as interviews, case studies, life stories, visual texts and personal experiences (Denzin & Lincoln, 1994) among others. The reason for using the qualitative method stems from the fact that, unlike in the past when it was largely popular within the social sciences, it is increasingly gaining currency in public health research where researchers explore diverse methodologies to gain insights into local perspectives of communities (Mack et al., 2005: vi). As patients, healers, and other participants are involved in this study, the qualitative method resonates with the study.

4.2. Approach - phenomenology

Regarding approach, the study adopts phenomenology. Phenomenology "…is an intellectual engagement in interpretations and meaning-making that is used to understand the lived world of human beings at a conscious level" (Qutoshi, 2018: 215). This approach aims to "comprehend and characterize a phenomenon's fundamental elements" (Delve & Limpaecher, 2022). Neubauer et al. (2019: 90) argued that phenomenology focuses on the lived experiences of individuals in a society while Havi (2011: 32) suggested that phenomenology "…orders experiences of ill people in order to illuminate this experience and enable healthcare providers to enhance their understanding of it." This approach analyzes and interprets the lived experiences, perceptions, belief systems, and emotions of a group of people and enables researchers to learn about how these individuals perceive these experiences ((Delve & Limpaecher, 2022). Teherani et al. (2015), cited in Neubauaer et al. (2019: 91) maintained that phenomenology describes a phenomenon by exploring it from the perspective of those who have experienced it. This situation is what Kleinman conceptualized as clinical reality. Clinical reality is a situation where lived experiences of sickness and health are enacted in all their existential immediacy; clinical phenomena are socially constructed and the social world is clinically constructed (Kleinman, 1980: 38). Kleinman further pointed out that "clinical reality is a complex of interrelated features including beliefs, expectations, norms, behaviours, and communicative transactions associated with sickness, healthcare seeking, practitioner-patient relationship, therapeutic activities, and evaluation of outcomes" (Kleinman, 1980: 42).

One cannot doubt the fact that this study falls within the scope of phenomenology. The reason is that the study engages with fracture patients and traditional bone setters in order to understand the lived experiences of these

participants regarding bone fractures, treatment methods, patient experiences with practitioners in the hospital, and the various belief systems, opinions, perceptions, and worldviews that influence patients to patronize the services of traditional bone setters in the Volta Region. This will assist the researcher in doing a detailed phenomenological analysis of the lived experiences of patients regarding the reasons underlying their patronage of traditional bone setters.

4.3. Study setting

This study was conducted in the Volta Region of Ghana. Volta Region is located in the southeastern part of Ghana. It shares borders with the Republic of Togo to the East, the Volta River to the West, Oti Region to the North, and the Gulf of Guinea to the South. The people of the Volta Region are an Ewe group of people who are believed to have migrated from the Republic of Togo to their present settlements. The "Voltarians" are divided into three dialectic configurations – *Ewedome*, *Tongu,* and *Anlo*. The people of *Ewedome* are located in the hilly and valley areas of the region, characterized by numerous mountain ranges and thick forests. The *Tongu* people are located along the banks of the Volta River and the plains around Avu and Aŋɔ lagoons while the *Anlo* people inhabit the coast of the Gulf of Guinea, Keta Lagoon, and the estuary of Volta River. These three groups speak Ewe as their language and trace a common migration from *Notsie* in the Republic of Togo.

The people of the Volta Region take pride in indigenous knowledge systems in health and healthcare. For this reason, there exist numerous traditional medicine practitioners who spread across many rural communities. These practitioners include diviners, faith healers, priests and priestesses, traditional birth attendants, traditional bone setters, and herbalists. These healers constitute the gatekeepers of health, diseases, and illnesses within the Ewe society. Traditional bone setters specialize in mending broken bones using indigenous knowledge systems. These healers are found in *Ewedome, Tongu*, and *Anlo* areas. In *Ewedome*, they are found in Gbi Atabu, Kpando Dzogbeshanti, Dodome Dogblome, Klefe Achatime, Akoefe Avenui, and Ziavi Dzogbe among others. In the *Tongu* area, they are found in Dabala Agbogbla, Agave Dzebenu, Agave Akplorti, Sokpoe, Mafi Wukpo, Mafi Kpedzeglo, Mafi Amegakofe and Mafi Kpordiwla. These healers are also found in Akatsi Abadzivorkofe, Wenu, Asadame, Dzodze, and Tamekofe which represent the *Anlo* enclave.

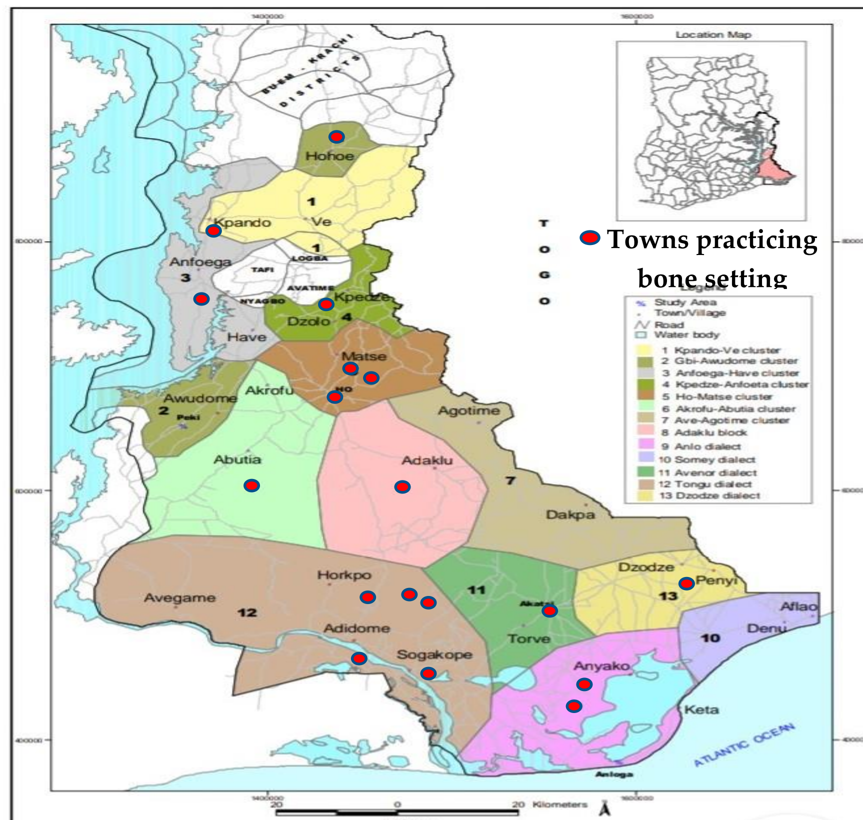

Figure 2: Map showing the Volta Region and the geographical and spatial distribution of bone setters in Eweland
Source: adopted and modified from Ofori (2008: 3)

Regarding the biomedical infrastructure, there exists Ho Teaching Hospital (Ho), Volta Regional Hospital (Hohoe), and numerous district hospitals, mission hospitals, health centers, clinics, and Community Health Planning Services spread across the eighteen districts of the Volta Region. However, only the Ho Teaching Hospital and Saint Anthony's Hospital (Dzodze) are mandated to deal with fracture issues in the Region. All cases of fracture which are presented to the various district hospitals in the region are referred to these two hospitals to manage as they have the expertise and technology.

4.4. Participants

Sixty-four (64) participants were recruited for this study. They include twelve (12) traditional bone setters, fifteen (15) in-patients, fifteen (15) out-patients, four (4) orthopedists, four (4) clinical nurses, four (4) traditional leaders, eight (8) community members and two (2) opinion leaders. These participants were recruited from communities such as *Akoefe Avenui, Klefe Achatime, Ho, Dodome Dogblome, Hohoe, Akatsi, Dzodze, Mafi Wukpo, Mafi Amegakofe, Mafi Kpedzeglo, Sokpoe* and *Tefle*. In-patients in this study refer to patients who were receiving treatment at various bone setting centers during fieldwork while the out-patients refer to patients who had received treatment from traditional bone setters and were discharged to go home and continue with their normal duties. The simple random sampling and purposive sampling techniques (Sharma, 2017) were used to recruit these participants. The in-patients were easily recruited at the bone setting centers while the out-patients were recruited following recommendations from the bone setters. Their locations and contacts were taken and subsequent follow ups were made to recruit them. The biomedical staff were recruited from Ho Teaching Hospital and Saint Anthony's Hospital, Dzodze.

4.5. Data collection and analysis

Three data collection methods were used in this study. These include interviews (Alshenqueeti, 2014: 40), observation (Gorman & Clayton, 2005: 40), and photography (Fairclough, 2018: 108). In-depth interviews were conducted with participants to understand their lived experiences, emotions, perceptions, attitudes, and ideas about bone setting and why they patronized the services of traditional bone setters. Direct observations (Ugwu & Eze, 2023: 20) were conducted on the field where the researcher observed healing practices at various bone setting centers and how patients responded to these practices. Photography was used to supplement data collected through interviews and observations which gave vivid visual texts about practices in various bone setting centers. Data was analyzed using the descriptive method of abstracting and storytelling. This analysis was informed by the narrative approach (Bliss, 2016; Bochner, 2007) which pays attention to life stories, people's experiences, and emotions. This method of analysis is important as this study is a phenomenological research which seeks to gain a deeper understanding of the stories people tell, their life experiences, and meanings (Andrew, Squire & Timboukou, 2013) made from them. This method of analysis informs this study.

4.6. Ethical clearance application

This article is a revised version of chapter five of my doctoral dissertation entitled "*An Ethnographic Study of Traditional Bone Setting among the Ewe of Ghana*" presented to the School of Graduate Studies, University of Ghana, Legon. Indeed, Mollet (2011) argued that research involving human beings is expected to show respect to ethical issues. Madushani (2016: 26) affirmed this position by suggesting that it is becoming important for a researcher to apply for ethical clearance during the conduct of research. Accordingly, this study, which revolved around patients and healers observed rigorous ethical considerations. First, the researcher applied for ethical clearance from the College of Humanities, University of Ghana, Legon. After a rigorous review process by the Ethics Review Committee, an approval was granted under the Ethical Code ECH 272/21-22. Following this approval, the researcher observed ethical principles such as informed consent, anonymity, confidentiality, and voluntary participation. The researcher sought verbal consent from participants before engaging with them. In addition, participants were informed that anytime they felt like disengaging with the study, they were free to do so. All these were done in order to strengthen the ethical framework of the study.

5. DATA ANALYSIS AND DISCUSSIONS

5.1. Categories of patients who patronized the services of traditional bone setters

Data from the field shows that three categories of fracture patients patronized the services of traditional bone setters in the Volta Region. The first group comprises patients who escaped from the hospital without the knowledge and permission of hospital officials. This group of people are patients who were presented to hospital for treatment. However, due to the fact that they were not satisfied with the services provided and were not seeing improvement in their cases, left the hospital to seek treatment with traditional bone setters. These patients normally arranged with their families without the knowledge of the hospital staff and the slightest opportunity they got, they escaped from the hospital to seek the services of traditional bone setters. An out-patient narrated:

> In 2017, I was knocked down by a car and was sent to the Ho Teaching Hospital. I stayed there for three weeks. They applied the Plaster of Paris on the fracture for the whole period, but I did not see any improvement. Eventually, I had to arrange with my uncle to look for a traditional bone setter for me. When he later confirmed that he had found one, we managed to escape from the hospital without the knowledge of the hospital officials. I was sent to a traditional bone setter at Dodome Dogblome where I spent three weeks and started walking (Source: field interview – April 2021, Dodome Dogblome).

However, interactions with hospital officials indicated that most patients run away from the hospital because they are unable to pay their bills not because they were dissatisfied with the healing process.

The second category of patients who patronized the services of traditional bone setters are those that legally and officially request permission from the hospital officials to be discharged to enable them to seek the services of traditional bone setters. This category of patients often makes such requests when they are not satisfied with services rendered to them in the hospital or when they are not experiencing a faster healing process in the hospital. Based on these experiences, they make decisions with their families to be discharged from the hospital. Once they are discharged, they resort to the services of traditional bone setters in the community. Below is a narrative from a participant:

> I suffered a multiple fracture in 2015 when we were playing football at Taviefe Senior High School football field. My family took me to the Ho Teaching Hospital where the clinical nurses provided me with first aid and injections. I was told I would undergo surgery but I did not accept that. I discussed with my family to look for an alternative means to treatment. Once that was done, I applied to be discharged from the hospital. Though the doctor did not agree in the first place, he later approved my application but told me that if I leave and the fracture becomes complicated, I should not return to the hospital. My family took me to a bone setter at Akome and today, I am walking (Source: field interviews, April 2021, Taviefe Dzefe).

The last category is those that presented directly to traditional bone setters without going to the hospital. This group of patients sees the bone setter as the first point of call for their fractures. Data revealed that many rural communities in the Volta Region do not have hospitals and other biomedical facilities. For this reason, people who suffer fractures present to traditional bone setters for treatment. Patients therefore believe in the efficacy, skills, experiences, knowledge, and practices of traditional bone setters, making them one of the highest patronized traditional medicine practitioners in the Volta Region of Ghana. These are the three categories of patients who engaged the services of traditional bone setters. Accordingly, the factors that account for their patronage are discussed in the next section.

5.2. Factors and reasons for the patronage of traditional bone setters

5.2.1. Fear of amputation

Interactions with participants on the field revealed that one major reason why patients patronized the services of traditional bone setters is fear of amputation. Some informants indicated that the hospital has become a place where many people with complicated fractures are amputated. They argued that in recent times, patients who suffer motorbike accidents experience amputation. Participants revealed that the Ho Teaching Hospital and Saint Anthony's Hospital have gained fame and notoriety in amputation. Some participants argued that commercial motorbike riders (okada boys) in Ho and Dzodze have had their limbs amputated. They argued that if the hospital officials had taken time to attend to the patients, they would not have needed amputation. Amputation is therefore seen by participants as a weakness of the hospital, a facility which is equipped with high expertise and technology. Again, participants held the view that they did not see the reason why someone would visit the hospital with the whole body only to return home without a part of the body. In effect, the problem of amputation scares away people from seeking the services of the hospital and rather patronizing the services of traditional bone setters. An informant in Ho Agortome revealed:

> In November 2020, I was knocked down by a taxi when I was returning from work in the evening around 5.30 pm at Ho Powerhouse. I was rushed to the Ho Teaching Hospital for treatment. When we got to the hospital, I realized that I had suffered a fracture of the leg. That Friday, I was not attended to. It was the next day that the nurses gave me some drugs which enabled me to vomit and defecate a lot of blood. The nurses treated me and later, they applied the POP and I was asked to pay so that I will be discharged. I was asked to come back for review in two weeks. When I got home, I could not sleep; the POP was very painful, there was no space for any ventilation and my leg was

> very hot and itching. After three days, I went back to the hospital. They used a machine to cut the POP, applied some medicine and applied a new POP. After three days, I came back with the same problem. The officials once again removed the POP and this time, after observing the fracture, one of the officials (young man) spoke in Twi '*Papa wei deɛ sɛ wan hwɛ yie a, ne nan nu yɛ bɛ twa nu*' which literally means that if this man does not take care, his limb will be amputated (Source: field interview -Fractured in-patient; March 2021, Ho).

The patient indicated that he pretended not to understand the Twi language. When he returned home, he narrated the story to his parents and that informed the decision to seek the services of a traditional bone setter. The following day, he was presented to a traditional bone setter at Klefe Achatime. As of March 2021, when the researcher interacted with this patient, he had started walking. In August 2021 during a follow-up on this participant, he had recovered fully and assumed his normal social duties. It is therefore argued that the fear of amputation encourages people to seek the services of traditional bone setters in the Volta Region. However, an orthopedic surgeon revealed that amputation is only conducted after an extensive assessment of the fracture and it becomes a necessity if the tissues, vessels, and nerves around the fracture are dead and have no life. Even with this, the patient's consent must be sought. In spite of this, the fear of amputation scares patients away from the hospital.

5.2.2. Fear of surgery and implant of metal objects in the body

The fear of surgery and the implant of metal objects in the body constitute another factor that enables patients to patronize the services of traditional bone setters. Some participants indicated that they do not like surgery in the hospital. Secondly, they detest the implantation of metal objects in the body. Thus, when they suffered their fractures, they did not want to seek treatment from the hospital. The reason was that, sometimes, when you visit the hospital with a complex and complicated fracture, the hospital staff recommends skeletal traction where metal objects like traction pins, wire, and metal plates are inserted into the bone as a process of mending the broken bone. This process is conducted through surgery. Participants noted that they do not like this method of treating fractures in the hospital as they do not see the reason why a patient should be walking on the streets with metals in his body. A participant expressed:

> The major reason why I ran away from the hospital was that one old man in my ward told me that since he suffered the fracture, he had undergone surgery for two times, awaiting the third one. He said they did the first one and it was not successful, but they told him that it was successful. Along the line, the doctor said they needed to do another one, which they did. Again, they said they needed to do the third one. When I heard this, I had to apply to the officials to be discharged (Source: field interview- Fractured outpatient; Ho Bankoe; May 2021).

According to the informant, this narrative put fear in him, and decided not to undergo the surgery. He applied to be discharged and later sought the services of a traditional bone setter at Akome. Interviews with an orthopedic surgeon revealed that multiple surgeries are often conducted when fractures require the implant of metal objects in the body. This method is applied to reduce fractures, maintain proper alignment, and correct deformities in the affected body part and is conducted through surgeries. The orthopedic surgeon further added that many people do not understand how the processes and methods of treatment work in the hospital in relation to fractures; the reason why they think that the hospital is only interested in conducting surgeries on patients. In spite of this explanation from the surgeon, the experiences, emotions, and views of participants point out that the fear of surgeries and implant of metals in the body makes people resort to the services of traditional bone setters who do not amputate.

5.2.3. Concerns with the plaster of Paris (POP)

The application of POP is one important method of treating fractures in the hospital. It is often applied when a patient presents a simple fracture to the hospital. However, interactions with participants revealed that the application of the POP is not always a guarantee for the healing of fractures. Participants held the view that the POP often

complicates the fracture instead of healing it. They noted that the hospital staff do not take time to properly realign the overlapped bones before applying the POP, hence, healing does not take place. Secondly, participants argued that the POP presents a lot of discomfort and inconvenience. First, it does not allow for proper ventilation, it itches continuously, the injuries are not regularly treated because of the POP and often contribute to rotten legs, a major cause of amputation in the hospital. This phenomenon drives people away from the hospital to traditional bone setters. A patient narrated:

> The application of the POP in the hospital has a huge problem. The fracture often gets rotten especially if it gets in touch with water. Secondly, there is no proper ventilation around the fracture, it is always itching, and if the patient does not control himself/herself, there will be the temptation to insert sticks or other metal objects into the POP to seek relief. These challenges of the POP make the patient uncomfortable (Source: field interview - Fractured in-patient, Dodome Dogblome; March 2021).

Interactions with hospital officials revealed that the application of the POP is guided by some principles. First, a window or flap is created around the injuries to facilitate the cleaning of wounds; the same flap allows for ventilation, and depending on the need, the POP is changed from time to time. In addition, patients are advised not to insert metals or sticks into the POP and not to move their limbs in order to facilitate healing. In spite of this, participants noted that the POP creates discomfort, it does not ensure proper alignment of broken bones and eventually, it disfigures the body parts of patients if its use is prolonged. On the basis of these challenges, many patients patronize the services of traditional bone setters to heal their fractures.

5.2.4. Cost of treatment

The hospital operates a cash-and-carry system. According to participants, the cost of treating fractures in the hospital is expensive as compared to bone setters. Informants noted that though the National Health Insurance Scheme supports patients in the hospital, it does not cover critical healthcare services in relation to fractures. The patient must pay 'huge' sums of money in the hospital to receive care. Participants pointed out that the cost of drugs, surgery, x-ray photographs, the application of the POP, and the use of other aids such as cotton, methylated spirit, and bandage must be paid for by the patient. In relation to the application of the POP, a lot of cotton is needed, making the patient pay more. More serious is the problem of the cash and carry system – the patient must deposit an amount of money before major treatment can commence. During fieldwork as of 2021, a patient who presents a complex fracture will pay not less than two thousand cedis (Gh¢ 2,000.00 or $ 341.37) for treatment to commence. A participant indicated:

> When I suffered my fracture in 2017 and went to the hospital, I spent almost Gh¢ 3,000.00 ($ 512.05). As part of the treatment process, the POP was applied. The first time I went for review, I paid Gh¢ 800.00 ($ 136.54) after the POP was removed and a new one applied. I paid other monies in relation to drugs, the x-ray and other related costs. Not everybody can afford this amount of money at the hospital. Even with all these payments, I did not get the needed relief. I had to move to a traditional bone setter at Dodome Dogblome. When I got there, the man told me that he would charge me Gh¢ 500.00 ($ 85.47) but I will pay this money after successful healing. I started walking after three weeks and when I was finally healed, I paid him (Source: field interviews – Fractured out-patient, Ho Dome; April 2021).

The extract above points to the fact that the cost of care in the hospital prevents people from patronizing the services of the hospital. Interactions with hospital officials pointed out that fracture management in the hospital is expensive compared to traditional bone setters. This is because the cost of equipment, surgeries, the POP, and other aids used in mending bone fractures are expensive. Again, the hospital looks at the overall health system of the patient such as the blood pressure, sugar levels, weight, pulse, diet, and temperature, and proffers therapeutic solutions to ensure the patient recovers holistically. All these processes require money and thus, the management of fractures in the hospital is very expensive. Accordingly, the cash and carry system and the expensive nature of the treatment of

fractures in the Volta Region inform people's decision to patronize the services of traditional bone setters. The reason is that the majority of the people who suffer fractures are ordinary rural dwellers with low incomes – most of whom are petty traders, farmers, fishermen, and artisans. Thus, it is impossible for them to raise huge amounts of money to seek treatment in the hospitals; in effect, they patronize the services of traditional bone setters whose services are affordable.

The factors discussed above point to the operational system and care methods employed in the hospital which work against patients with fracture. These four problems could be described as inherent weaknesses within the hospital care and social system. These weaknesses, though not designed consciously to affect the patient rather create some aversions for patients towards hospital care. These factors therefore have become the factors that drive patients away from the hospital to seek the services of traditional bone setters in the community. However, it was also found that the nature of practice by traditional bone setters has certain inherent connections with the local people which attract them to patronize the services of these healers which are discussed further.

5.2.5. Familiarity with the practices of traditional bone setters

One major reason that attracts patients to seek the services of traditional bone setters is familiarity with the practices of these healers. First, the practices of bone setters are embedded in the local culture, customs, traditions, and belief systems of the people. Hence, it is easy to understand and follow the practices during the healing process. The use of herbs, splints, and sheanut butter in healing is familiar to the patients. Again, the taboos, rules, and regulations that govern the healing process are embedded in the customs of the people, hence it is easy for patients to abide by them during treatment. In addition, the pain-relieving mechanisms adopted by traditional bone setters such as storytelling, the use of songs, proverbs, riddles, and other folklore make the patient feel at home during the healing process. This phenomenon makes the patient follow through and be a key participant in the healing process, unlike the hospital where the patient is at the receiving end. A patient remarked:

> The reason why I left the hospital to seek the services of traditional bone setters was that, their practices are very familiar with my culture. As an indigene of Anlo, we know that health problems have spiritual connotations. Thus, you need to explore the spiritual domain in order to solve some of these problems. Thus, I had to visit the bone setter in my community who performed some prayers and libations before commencing treatment. I received healing after spending three months with the bone setter (Source: fieldwork, July 2021, Akatsi)

The above view indicates that patients are interested in understanding the healing processes being applied to them and in cases where they are alienated, they find a reason to look for alternative healing systems. This is a contributory factor to the reasons why patients prefer traditional bone setters to the hospital.

5.2.6. The social support system of traditional bone setters

The traditional bone setting comes with a good social support system. This support comes from family, friends, and the community. The social support system allows for a conducive, flexible, and very accommodating atmosphere, unlike the hospital where care and management of fractures is the sole preserve of the hospital officials. At the community level, the bone setter, his/her family, the family of the patient, and other community members have a role to play in the healing process. While the bone setter focuses on therapeutic services such as the application of herbs, application of hot water to the fracture, massaging of the fracture, splinting, and reviewing the fracture regularly, the family of the patient engages in motivational statements, providing encouragement, engaging in effective communication with the patient, conducting other activities like singing, storytelling, and playing of local games which serve as diversion therapy and pain-relieving mechanisms. All these forms of support hasten and quicken the healing process. This phenomenon is absent in the hospital where only the nurses and doctors provide the needed support to the patient and the family is only allowed to come and spend between 30 minutes and 1 hour with the patient. The social support motivates people to seek the services of traditional bone setters.

5.2.7. The good review processes

Another major factor for the continued patronage of the services of traditional bone setters is the good review processes that characterize the practice of bone setting. Interviews with participants indicated that bonesetters review the fracture every three days. This means that within the period of every three days, the wounds, cuts, and fractures are treated. Participants argued that the review process is characterized by the removal of the splint and herbs, application of hot water, and massaging. Once this is done, fresh herbs are applied and the splint is tied with a bandage and white calico ropes to continue the healing process. This process is repeated every three days. The advantage is that the bone setter is able to determine how the fracture and wounds are responding to treatment. Through constant touch and observation of the fracture, the bonesetter is able to tell whether there is a need to adopt other treatment methods or apply other aids to enhance the healing process. This phenomenon is virtually absent in the hospital especially when the POP is applied – it could take two to three weeks before it will be reviewed. Participants noted that the POP method is not effective as compared to the good review processes implemented by the bone setter in the community. This phenomenon motivates patients to seek the services of traditional bone setters rather than the hospital.

5.2.8. The fast process of healing

The final reason that contributes to the patronage of the services of traditional bone setters is that healing is faster compared to the hospital. Participants held the view that due to the good review processes, unique knowledge, skills, local technology, and customs that inform traditional bone settings, healing is faster. They noted that the herbs, splint, sheanut butter, white calico ropes, hot water, and the process of massaging constitute processes that enhance the faster healing of fractures. In an interaction with a traditional bone setter, he narrated:

> The healing of bone fractures differs from patient to patient. However, no matter how different the biological make up of a patient may be, there are certain time lines within which to achieve healing. For instance, in relation to fractures of the leg or arms, whether simple or complex, healing takes place in six (6) weeks. Regarding the thigh, healing can take place between two (2) and three (3) months. For waist fractures, healing takes place in three (3) months. In relation to the collar bone (clavicle), healing takes place in six (6) weeks. (Source: field interviews – Traditional Bone Setter, May 2021, Sokpoe).

The reason why it could be argued that healing is faster is that the patient is constantly being attended to, the fracture is treated and massaged regularly, and herbs and splints are applied from time to time to facilitate the healing process. A traditional bone setter at Mafi Amegakofe indicated that herbs constitute the key reason for fast healing as their application performs three functions – removal of broken bone particles from tissues, muscles, and nerves, melting of bones, and hardening of bones. Different herbs are therefore applied at each point in the healing process and the importance of these herbs is that they promote quick healing of the fracture. Participants testified to the fact that healing by traditional bone setters is faster compared to the hospital, a major reason why they patronized the services of the community healers.

5.3. Analysis of findings in relation to the Four A Model

The Four A model talks about *availability* which denotes the geographical distribution of care-givers, *accessibility* means how easy it is to approach care-givers, *affordability* – the inexpensive nature of services provided by healthcare givers, and *acceptability* – the cultural and belief systems that influence the choices of people. In relation to the findings, familiarity with the practices of traditional bone setters, the social support element of treatment by traditional bone setters, the good review processes, and the fast healing process all denote *acceptability*, a reason why patients continue to patronize the services of traditional bone setters. In addition, the cost element as found in the findings reflects the principle of *affordability* in the model. Data shows that fracture management and treatment in the hospital are expensive as compared to traditional bone setters. Again, the cash-and-carry system prevents many

people from seeking the services of the hospital. On the other hand, the inexpensive nature of care by traditional bone setters makes their services affordable, a factor that promotes the patronage of their services. The fear of amputation, the fear of surgery and implant of metal objects, and the concerns with the plaster of Paris prevent many patients from seeking the services of the hospital. This phobia and the presence of numerous bone setters who spread across communities in the Volta Region provide the platform for alternative care practices by patients. Thus, it could be argued that the phobia of hospital practices and the presence of numerous traditional bone setters in the Volta Region reflect the principle of *availability* in the model. The easy approach to bone setters though not a major finding in this study reflects *accessibility*. This analysis is made because there are relatively good access roads that link these communities which make traveling to these communities very easy, thus, accessing the services of these local healers.

6. RESEARCH IMPLICATIONS

This study will inform decision-makers and policy formulators such as the Ministry of Health, the Ghana Health Service, and other stakeholders to revisit the role of traditional bone setters within the primary health sector of the country. This is important as this study provides evidence to showcase the fact that there is a need for policymakers to fully implement the Traditional Medicine Practice Council Act (575) which seeks to empower traditional medicine practitioners in Ghana. More importantly, this Act should be looked at in terms of integration mechanisms between biomedical professionals and traditional healers. Finally, this study provides the basis for advocacy campaigns towards capacity-building activities and support for these local therapists within the rural communities of Ghana.

7. CONTRIBUTIONS TO SCIENTIFIC COMMUNITY AND FUTURE RESEARCH

This study contributes to both academia and society. In the area of academia, it contributes to knowledge production in the field of medical anthropology by unearthing new insights into health-seeking behaviour in the Ewe society (Volta Region) in relation to the management and treatment of bone fractures. It provides unique data that explains the various factors that inform people's choices, decisions, and preferences for the services of local healers. This data further strengthens the *Four A Model* (FAM) in understanding health-seeking behaviour in society. In terms of society, it puts the Ewe society in the spotlight as a society which explores traditional medicine to remedy bone fractures in spite of the influence of social change (modern hospitals, experts, and technology). Finally, this study will serve as a springboard for other related studies to be conducted in societies across the continent to unearth the relevance of traditional bone settings to primary healthcare in Africa.

8. CONCLUSION

This study investigated the reasons that undergird the patronage of the services of traditional bone setters. It discussed literature on traditional healers, traditional bone setters, the practice of bone setting, and the patronage of traditional bone setters. The *Four A Model* served as a theoretical framework for understanding the health-seeking behaviour of patients who patronized the services of traditional bone setters in the Volta Region. The principles of Availability, Accessibility, Affordability, and Acceptability were understood in the context of the lived experiences of participants. Using phenomenology as a qualitative approach, the study delved into the categories of patients who patronized the services of traditional bone setters. It further detailed the experiences of patients with the services of the hospital and traditional bone setters which informed their choices to seek the services of traditional bone setters. The study finds fear of amputation, fear of surgery and implant of metal objects, concerns with the Plaster of Paris, cost, familiarity with the practices of traditional bone setters, the social support system, the good review processes, and fast healing as factors that underpin the patronage of traditional bone setters in the Volta Region of Ghana. The study concludes that traditional bone setters constitute key stakeholders in the healing of bone fractures in the Volta Region of Ghana and contribute tremendously to primary healthcare. On the basis of this, the government needs to work out modalities to integrate bone setters into the mainstream healthcare system to complement the services of orthopedists in the hospital.

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