

# Identification of Sickesses through Women Producers of Herbal Medicine (AGBO) during COVID-19 Pandemic in Southwest Nigeria

Emmanuel, E, OGBU; Chiebuka P UZOEBO; Isaiah, B, ADISA; Ephraim, I, NWOKPORO;

Ayoyinka, A, BAKARE; , Emiola, O, OJEDOYIN

*Medical Sociology University of Ibadan, Nigeria.*

**Abstract:** The link between stigmatization and the COVID-19 pandemic is related to how health practitioners categorize sicknesses. Since the start of the COVID-19 pandemic, indigenous medicine has been widely used to combat disease in southwest Nigeria. The study sought to comprehend how Agbo (herbal medicine) women producers identify sicknesses in southwest communities during the COVID-19 pandemic's sudden onset.

To pay close attention to the identification of sicknesses, we used a symbolic interaction approach. In Lagos, Oyo, and Ogun States, Nigeria, fifteen semi-structured interviews with Agbo women producers were conducted using the snowballing technique. Content analysis and the Pivot-table analytical tool were used to interpret the data.

Agbo women producers identify a sickness based on their belief system, level of openness of patients, observations, spiritual consultations, and healing skills. According to the findings, the majority of herb producers who use previous experiences and observations to guide the identification of sicknesses specialize in short-term patient admission. The majority of illnesses treated had spiritual, cultural, and lifestyle causes. Participants believed that the widespread use of Agbo at the start of COVID-19 was motivated by a desire to avoid being labeled as a coronavirus patient in the community and hospitals.

**keywords:** Agbo, women producers, community health, COVID-19, herbal medicine, sickness

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## 1. Introduction

The sudden emergence of the COVID-19 pandemic and mandatory lockdown restrictions disturbed and threatened most people diagnosed with coronavirus symptoms such as vomiting, stooling, dizziness, coughing, high fever, loss of appetite, loss of taste, heightened sense of smell, and other invasive respiratory illnesses. In six southwest Nigerian states (Ondo, Osun, Ekiti, Ogun, Oyo, and Lagos), there were 175,444 confirmed Covid-19 cases, 165,032 recovered cases, and 2,171 deaths (Nigeria Centre Disease Control, 2020). The research area accounted for Lagos, Ogun, and Oyo states. Most persons who had identical coronavirus symptoms in their bodies and were fearful of being ostracized in Nigeria were more concerned. Also, people who had survived the COVID-19 epidemic, such as Oluwaseun Ayodeji Osowobi and many others with coronavirus symptoms, feared death, stigma, and the psychological pain that comes with it without reservation (Mbah, 2020; NCDC, 2020; Mahmud & Islam 2020).

According to Mahmud and Islam 2020; Ramachandran, (2020); Ramaci et al., (2020), the COVID-19 pandemic's mass panic, which harmed community well-being, was exacerbated by misinformation, a shaky public health infrastructure (inadequate testing facilities, a limited number of formal quarantine centers, a scarcity of intensive care units, and administrative muddle), and a lack of intensive care units (Mahmud & Islam 2020;

Ramachandran, 2020; Ramaci et al., 2020). The rising demand for alternative health solutions such as Agbo medications can be attributed to the above-mentioned arguments. It is possible to treat a patient's concerns and anxiety if their sickness has been accurately categorized through diagnosis. As recent demand for almost everything has created niches for patients to engage in self-care rather than medical recommendations, patient reliance on a single source of healthcare services has considerably declined (Peters et al., 1998; Lubkin & Larsen, 2006). As a result, receiving a diagnosis enables you to differentiate between illness and disease. When practitioners have an ambiguous association between the patient's health problems and bodily functions, what was formerly a conforming dualism in a medical institution may become a problematized dichotomy (Jutel, 2009; Mik-Meyer & Obling, 2012). It turns out to be an opportunity for herbal producers to analyze treatment trends and identify various illnesses in the community environment by using Agbo or herbs. In southwest Nigeria, Yoruba herbal medicine (Agbo) is a combination of plant types used to treat several diseases. Orally or with the use of plant and animal parts, it can be ingested. It is steeped in water or distilled with alcohol or palm wine. It is feasible to self-prepare Agbo outside of herbal shops if you follow the suggestions of Agbo makers (NAN, 2019; Omobuwajo & Sowemimo, 2008; Fakeye et al., 2009; Li et al., 2020). Because of the economic situation in rural Nigeria and discontent with some contemporary medical methods during and after health crises, almost 85% of Nigerians seek out traditional medicine practitioners for healthcare, spiritual, physical, and social advantages (Oshikoya et al., 2008). According to Fakeye et al. (2009), herbal medication is trusted by more than two-thirds of 595 pregnant women in Nigeria due to its perceived efficacy. Many of them produce their herbal or Agbo medicine from scratch, while others buy ready-made herbal items from vendors. Oral and topical administration were the most popular methods of delivery (Fakeye et al., 2009; Duru et al., 2016). There are a growing number of accounts from people in African countries like Nigeria who have experienced and complained of pains all over their bodies, as well as subjective symptomatic suffering that has been regarded untrustworthy after a certain medical diagnosis. Biological investigations may not always match the symptoms reported by patients (Ring, Dowrick, Humphris, Davis., et al., 2005; Mik-Meyer & Obling, 2012). Several health practitioners, despite claims, may have jeopardized health expert reliability by failing to clinically identify certain patients who feel ill and ashamed of being illegitimately sick with symptoms whose causes are unknown (Mik-Meyer & Obling, 2012).

For the reason that most sick community members actively participate in interpreting their unique symptoms, empirical data by Werner and Malterud (2003), McPherson and Armstrong (2009), and Gill et al. (2010) reveal that many doctors struggle to identify patients' diseases that have a non-medical sign. This happens when a patient's symptoms and biological diagnosis contain imprecise clinical clarifications that medical practitioners regard as untrustworthy. Medical practitioners either disregard or label symptoms indicated by disease occupants as a mental ailment when they do not fall within the clinical diagnosis. They categorize patients' medically unexplained symptoms as a wide spectrum of health conditions, including milder forms of depression other disputed illnesses, such as persisting musculoskeletal pain, chemical intolerance, irritable bowel syndrome, chronic fatigue syndrome, memory and mood problems (Bendelow, 2009; Mik-Meyer & Obling, 2012).

The overarching categories of sickness have created opportunities for other alternative health practitioners, such as the use of Agbo or herbal treatments to provide health services to sick people in communities. According to research, more adult Agbo women producers aged 50 and up are professionals in identifying diverse sicknesses, treating, and selling herbal medicine in Nigeria than men producers of the same age (Agunbiade, Opatola & Titilayo, 2012). Although NAFDAC indicates that only a small percentage of traditional medicine producers in Nigeria are registered, it appears that infringement on the function of traditional healers in communities is difficult since Agbo producers act as gatekeepers. The growing interest in medicinal and aromatic plants, as well as their ability to give economic benefits, is gaining steam, as these are a common source of materials used in alternative medicine, opening up opportunities for more sustainable agriculture (Ogbu & Uzoabo, 2020). Traditional healers make up around one-fifth of the population in Sub-Saharan Africa, whereas doctors trained in modern medicine make up about one-fifth of the population. (Kromberg & Soodvall, 2016). While 85 percent of Nigerians buy from Agbo vendors, over 80% of South Africans seek counsel from any of the 200,000 traditional healers they visit before contacting main healthcare providers (Oshikoya et al., 2008; Truter, 2007).

This African story serves as a springboard for further investigation into Agbo medicine producers and the identification of sickness in southwest Nigeria. The importance of this study lies in its emphasis on the contributions of women herbal medicine producers to the preservation of lives in Nigeria. Agbo women producers have been providing their services for decades, and the Agbo that they offer as a product is widely consumed in Nigeria, despite concerns about the safety of traditional medicine use (Li, Odedina, Agwai, Ojengbede, Hou & Olopade, 2020). Because of the difficulties associated with visiting health centres, Agbo women were able to position themselves as a secondary and alternate point of contact for patients during a health crisis such as COVID-19 in Nigeria. This study examines the role of Agbo women in identifying sicknesses during the pandemic. This study does not recommend Agbo women as the first beacon for health service delivery, but rather as backup health providers during a health crisis, as they demonstrated during the COVID-19 outbreak in Nigeria.

## 2. Literature review

The review of literature covers the meaning of Agbo and the ways herbal producers identify sickness at the community level in southwest Nigeria.

### Meaning of Agbo and Agbo production

Herbal medicine is a rooty vegetable, leaves, bark of plants extracts from trees and animals parts. Sometimes it is broader than Agbo. Agbo is a concoction made from various plants herbs and animal parts for medicinal, aromatic, or savory properties. It can be boiled in water with herbal roots and leaves, tree bark, and animal parts. They are consumed orally, ingested, inhaled, swallowed, or applied topically to the skin. It is made by herbalists and people who have received training in the production of herbal medicines. In Nigeria, the majority of herb traders are women known as Elewo-Omo or Iya Alagbo. Agbo is not unlike popular herbal medicine; as our forefathers believed, Agbo is a balanced and moderate approach to healing that helps people survive in times of health crisis. Those who consume Agbo believe its content is safe and effective, although it is harvested, dried, and stored in a variety of ways. This variation can be attributed to harvesting location and timing (Kunle et al 2012; EMEA, 2005). In most cases, the source, preparation, principle, and reference compounds of Agbo are unknown, while they are commercially available, and vary without a single agreeable practice. This issue frequently influenced Agbo's shortcomings in terms of quality control parameters, usage, and application in developing countries. It is common for one Agbo product to contain at least five different ingredients, but there is currently no official standard for Agbo or herbal preparation. Grated ginger, honey, garlic, apple vinegar, cinnamon powder, lemon, paw-paw leaves, mango leaves, bitter kola, lime, and turmeric are among the ingredients used. It is difficult to identify all of the claimed ingredients in a formulation (Kunle et al 2012). The difficulty starts from cultural ideology; the collection of herbal material in the absence of a general reference standard for preparation, storage, and processing. Agbo producers treat at least four conditions, including Agbo Iba for malaria, Agbo Jedi-Jedi for typhoid fever and dysentery, Agbo Ara Riro for body aches, and Agbo Atosi for aphrodisiac tendencies and sexually transmitted infections. In Nigeria and other parts of West Africa, herbal or Agbo remedies and spiritual healing are common. More Yoruba ethnic people than any other tribes or ethnic groups in Nigeria use Agbo medicine (Oreagba et al., 2011; Li et al., 2020). Agbo production is a part of the Yoruba group's indigenous culture in Nigeria. It is a type of healing material used by traditional healers to identify and treat ailments such as cancer, diabetes, HIV, hypertension, malaria, asthma, epilepsy, typhoid fever, sickle cell disease, hemorrhoids, and body pain, among others (Ezeome & Anarado, 2007; Ogbera et al., 2010; Oshikoya, 2008; Lawal et al., 2015). Similarly, Agbo producers are informally trained in herb production by close relatives, and they learn more about the act through observations, conversations with colleagues, and conversations with customers about their illness. They believe in supernatural causes of diseases and use affordability, accessibility, and perceptions based on family recommendations to reach out to their users (Omobuwajo & Sowemimo, 2008; Adejumo et al., 2013; Chukwuneke et al., 2012; Oreagba et al., 2011). Most Agbo producers are women herb traders who capture approximately 68 percent of its users aged 17 years and above to consume Agbo two to six times weekly in southwest Nigeria (Omobuwajo & Sowemimo, 2008; Li et al., 2020). In this part of Nigeria's southwest, Agbo users refer to Agbo producers as "Elewe Omo," which means "one with leaves for children" (Omobuwajo &

Sowemimo, 2008), or "Iya Alagbo," which means "a woman who sells herbs." Aside from their personalities, indigenous knowledge of Agbo production is a piece of secret information shared only by a few privileged families in southwest Nigeria from generation to generation. It is revealed to those who have been unofficially trained (Omobuwajo & Sowemimo, 2008) through word of mouth and observations as a method of learning the herbal trade. The majority of the materials used for practice are abundant during the rainy season and are gathered from various forests. Herbs are harvested regularly throughout the year. Between October and March, when plants and animal parts are scarce, Agbo producers travel to far-flung forest regions and market places outside of the southwest to obtain the materials required, which sometimes fail to regenerate during the rainy season. This has serious bio-conservative implications for the species that are exploited. Agbo producers treat their customers differently depending on the ailment. Agbo production ingenuity is most prevalent among rural women in southwest Nigeria. They play important roles in a variety of community developments, including the planting of food crop species, the preservation of seed, and the domestication of wild edible plants (Adebobola, 1999; Aluko, 2016). Farmers use medicinal plants harvested from their fields to care for immediate family members, prepare a home meal that ensures food security, and treat community members in general (Haile, 2004; Aluko, 2016). Identifying sickness with Agbo is not limited to any particular location; it can be done in homes, businesses, open markets, or while street hawking Agbo (Omobuwajo & Sowemimo, 2008).

### **Identifying sicknesses at the community level**

Sickness is a passive opportunity for individuals to admit to playing a sickness role as a result of the subjective interpretive construct of their well-being. These subjective constructs indicate that individuals who have perceived an inability to perform daily tasks optimally should be relieved of their specific daily job or role, and try to recover by accepting potential recommendations from competent sources. When identifying the sickness of community members, the use of Agbo remedies becomes part of the holistic health care system, which is organized into three major levels of treating various sicknesses. Divination, spiritualism, and herbalism are among them. Although authors and tribes have given Agbo other names, they are aspects of traditional medicine referred to as alternative medicine. Its holistic healthcare can be applied to a patient's body either internally or externally, depending on the ailment. In several communities, Agbo producers are herbal knowledge keepers, healers, and liberators with the ability to explain and manage community members' subjective distresses (Eshemokha, 2019; Chavunduka, 1990; Mahomoodally, 2013; Ezekwesili-Ofili & Okaka 2019; Agunbiade, Opatola & Titilayo, 2012).

Within an explainable context that made up medical credibility, insights of the patient's sickness classifications propose a focus on clinical attention, but the acceptability of herbal (Agbo) products in sudden health challenges (such as the COVID-19 pandemic) in southwest Nigeria is a medicinal response to primary health challenges faced by people who have symptoms but no clear clinical diagnosis" (Mik-Meyer & Obling, 2012). Nigeria's lockdown restrictions and social distancing rules, like those in Bangladesh, weakened as a result of people's perceived susceptibility to disease and determination in an outward movement to find self-health and economic solutions to the shocking realities they faced (Marmud & Islam, 2020; Offiong, 2020; Toffler, 1984). Parsons' (1978) sick role model, as shown in Segall's (1976), illustrates a moral validity that when patients are unable to perform their daily tasks optimally, they may be relieved from their daily jobs or roles, and attempt to regain health by accepting recommendations from competent health practitioners, knowing that they are not responsible for their illegitimate health condition. Parsons' assertions echo society's functional interest incredibly minimizing illnesses, as the sickness confirms constraints to fulfilling everyday roles optimally. A credible relationship between realistic sickness and illusory illness narratives is described by combining the classification of patients' sickness and societal expectations (Segall, 1976; Mik-Meyer & Obling, 2012). This credibility discusses a health practitioner's ability to provide an illustrative framework that classifies ill community members into specific sickness conditions through the legitimization of their complaint, even when a clinical finding may not be present (Mik-Meyer & Obling, 2012). The method for identifying sickness varies depending on location and culture. After observing and documenting patients' subjective distress, traditional practitioners in southwest Nigeria combine primary and secondary explanations for disease causes by formulating a working hypothesis to guide their healing activities, which can include spirituality, divination, and

herbalism (Abiodun, 2005; Okeke et al., 2006). Agbo, which identifies and treats sicknesses, provides primary healthcare to 80 percent of African populations and many African migrants in the diaspora, who can now access their indigenous traditional medicines. (WHO, 2019; Shewamene, Dune, & Smith, 2020).

### 3. Methods

#### *Study Site, Participants, and Interviews*

Three cities in Southwest Nigeria have been chosen for the study: Lagos, Ibadan, and Ogun. In Nigeria, there are 61,882 confirmed cases and 1,129 people have died. The study area had 19,692 confirmed cases, and the widespread Agbo production during the coronavirus outbreak made it a suitable location (NCDC, 2020; Oshikoya, et al., 2008). Between June and September 2020, fifteen interviews were conducted with Agbo producers (13 females and two males; ages 34-102) from six ethnic groups in Nigeria (Ilaro-Egbado, Agbara-Awori, Abeokuta, Ikale-Ikitipupa, Ile-Ife.,) and one participant from the Benin Republic. The difficulty of not recruiting more males in the study was due to the unique role of women in the production of herbal medicine in southwest Nigeria. Potential participants must have produced Agbo for at least two years and know identifying diverse sicknesses of patients who have exempted themselves from their normal social role obligations due to varying disabilities to perform normal tasks optimally (Segall, 1976). The qualitative interview technique was best suited to eliciting detailed insights into how respondents developed herbal strategies to identify various sicknesses and manage community health in the aftermath of the COVID-19 Pandemic in southwest Nigeria. The selected locations in Southwest Nigeria have comparable lowest and maximum climatic conditions of approximately 26.00 1.66°C and 33.38 1.43°C, respectively, with humidity figures of 67.42 4.90 percent and 91.14 2.80 percent (Sofowora, Ogunbodede, & Onayade, 2013; NCDC, 2020; Ogaugwu, Mogaji, Ogaugwu, Nebo, Okoh, Agbo, & Agbon, 2020). Word-of-mouth and snowballing techniques (Bourdieu, 1970; Goodman, 1961) aided in the recruitment of participants, which began with the authors and another male co-researcher visiting shops of herbal medicine producers during market hours and at the participants' leisure. Because temperature and humidity affect the transmission of related infectious respiratory diseases such as COVID-19 transmission in southwest Nigeria, we conducted the interview mostly at noon (Ogaugwu et al., 2020). All authors and a male co-researcher conducted interviews that lasted between 24-45 minutes. The following questions/probes were used to elicit data: "How did you learn the act of herbal production?", "How do you identify sickness?", "Which of the herbal medicines sells the most?", "Did customers request herbal medications to treat COVID-19?", and "Do you have a cure for Corona Virus?" At the end of each interview, we asked participants to put us in contact with other herbal medicine producers who could share with us how their knowledge of herbal medicine improved their community health management. We used a digital device to record the interviews with the permission of the interviewees.

**Table 1.** Sociodemographic data of the Participants

Participant (P)	Gender	Age	State/ Ethnicity	Marital Status			
				Single	Married	Widow	Widower
Participant 1	Female	34	Oyo State	1			
Participant 2	Female	35	Osun State	1			
Participant 3	Female	40	Benin Repub./Ajase	1			
Participant 4	Female		Oyo State	1			
Participant 5	Female		Niger State/Pashi	1			
Participant 6	Female	42	Ondo State	1			
Participant 7	Female		Ogun State	1			
Participant 8	Female	45	Oyo State.	1			
Participant 9			Oyo state	1			
Participant 10	Female	46	Oyo state	1			
Participant 11	Male	50	Ogun/ Ilaro-Egbado	1			
Participant 12	Female	55	Ogun/ Agbara-Awori	1			
Participant 13	Female	64	Ogun/ Abeokuta	1			

Participant 14	Female	75	Ondo/ Ikale-Ikitipupa	1
Participant 15	Male	102	Osun/ Ile-Ife	1
Total				15

The study employs a symbolic interaction approach, and the authors become acquainted with the terms of Agbo producers that are appropriate and necessary to guide the interactive sessions and the expected research outcome (Blumer, 1937; Tilburt & Kaptchuk, 2008). Popular terms include “Agbo Jedi-Jedi,” “Paraga,” and “Agbo Opa eyin” (herbal drinks made from a combination of plant parts including roots, barks, seeds, leaves, and stems used to treat back pain, hemorrhoids, erectile dysfunction, constipation, bowel cleansing, and sugar overload). While “Agbo Iba” (herbal drink for treating malaria) is the most common herbal mixture in Africa and Nigeria (Brimah & Adigun, 2014; Adeleye, Okogi, & Ojo, 2011; Kadiri, 2008). This term aided in capturing an understanding of the meanings herbal medicine producers attribute to the Agbo they produce, how they traded, and how they administered it to manage the health of the sick persons in southwest Nigeria. We conducted a thematic analysis of the data collected using inductive and deductive approaches. The analysis was guided by Braun and Clarke's (2019, p. 87) six steps of thematic data analysis (acquainting oneself with the primary data, generating initial codes, probing for and identifying themes, reviewing themes, defining and naming themes, and constructing reports). After having transcribed verbatim tape recordings, the authors read the data several times before beginning a manual inductive coding directly from the data, using participants' own words and phrases into English translation. We attempted this by enhancing the analytical rigor and transparency. The transcripts were then imported into Pivot Table Tool from Microsoft Excel 2016. We compared the initial codes to the manually generated codes after they were generated (Dierenfeld & Merceron, 2012; Maher et al., 2018). Furthermore, before selecting themes, the responses generated by interviewees during the coding processes are completed by compiling relevant data (Jackson & Bazeley, 2019; Braun & Clarke, 2019). To aid in the identification of appropriate codes for the study, the themes developed were subjected to a series of analytical reviews of the codes. Following that, was refining themes and subthemes (e.g., identifying sicknesses, categorizing sicknesses) and naming before recording the import trends. The purpose of involving the study team in the analytical procedures was to deliberate and decide on the coding and themes developed to help improve the validity and reliability of the data as well as to maintain trust and reflexivity in the study (Shenton, 2004; Braun & Clarke, 2019).

### **Ethical consideration**

The Traditional Association of Herbal Medicine, Southwest, Nigeria, ethical committee in Agbara-Ogun State approved this study. They are the custodians of traditional health knowledge and have the authority to approve or deny research requests. The National Research Ethics Committee in Abuja, Nigeria, oversees and supervises the remit. We strictly adhere to their local ethical standards that govern research. Before we conducted the interview, the participants, who are members of the Association, agreed to take part in the study. The purpose of the study was carefully explained to them via verbal and written information sheets, and no research was conducted without prior consent acceptance. We asked participants to choose the best location and pseudonyms to protect their identities during the interview session; we replaced the participants' names and other identifiers with false names that they preferred to maintain confidentiality and anonymization. This was done to gain their trust and to encourage an interaction free of bias and distractions that could jeopardize the study's purpose. Participation was entirely voluntary, and potential participants were made aware that they could withdraw at any time. When conducting the research, we were careful to avoid any events or acts that could endanger the participants' well-being, including considering our safety in the field. In the absence of English, we communicated with the participants in their native languages (Yoruba and Pidgin), both of which we are fluent in.

### **Limitation of the study**

The investigation is limited to southwest Nigeria. We were interested in learning how Agbo women producers responded to the pandemic to identify and treat sick community members. The interview guide was limited to focusing on Agbo usage skills and treatment capabilities during the COVID-19 pandemic, but little attention



was paid to the herbal preparation involved because secondary data on herbal preparation common to southwest Nigeria has been slightly captured in the background of this paper, and the focus was rather on the identification of sicknesses in southwest communities.

#### 4. Result and Findings

In the face of the COVID-19 pandemic, Agbo women producers' resourcefulness in detecting specific illnesses of people at the community level is shown in the findings presented below. Sicknesses, illness roles, and labeling exist at the community level. The data analysis shows how Agbo women producers in southwestern Nigeria try to detect illnesses and manage community members' health. Agbo consumption is innovative not just in terms of identifying illnesses, but also in terms of the ease of access, cost structure, and ethnic variety unity it creates across culturally dynamic tribes in southwestern Nigeria. This is one of the reasons for Nigeria's strong perception of Agbo usage. It is also simple. In comparison to modern medicine tablets, which have a specific cure for physiological functions with no major cultural relevance attached, Agbo is an inclusive cure with ripple effects in strengthening effectiveness and classifying sicknesses within the confines of social and cultural norms around health conditions for the majority of participants. The majority of participants agreed that the Agbo remedies produced are not only a direct reflection of the illness that exists in the communities, but that upgraded versions of Agbo are produced and sold in pharmacies throughout southwest Nigeria. This boosts their confidence in producing Agbo for their community members.

##### Community Illnesses

During the strict lockdown restrictions, Agbo women identified the most sought-after medication by community members as Agbo for "malaria, fever, and typhoid," while others include Agbo for Body pain, infections, hypertension, high fever, throat arches, and dry cough, rheumatism, diabetics, and gonorrhea. The following excerpt reveals the specific sicknesses of community members treated by Agbo women.

**Participant 13:** Several people come here for herbal treatment, talk about pregnant women, talk about family men and so on, for prenatal and postnatal care, child delivery, infections like sexually transmitted diseases and I treat cancer. The people that patronize me the most are Igbo's. They are just bringing more and more people to me ....

Married couples were identified as the most frequent patrons of herbs for a variety of reasons, including cancer treatment, child delivery, prenatal and postnatal care, and infectious diseases such as sexually transmitted diseases (STD) and other invasive infectious diseases. This reveals that, for many community members, herbal producers are recognized as first responders who receive complaints about health problems before many other community-level primary healthcare service providers. Another comment was made by a respondent:

**Participant 15:** I cannot mention them all because they are many, no specific class, but some of their sicknesses include convulsion, stroke, midwifery, high-fever, malaria, and infections.

There are irregular herbal product purchasers, making it difficult for many herbal producers to identify them all at other times. This was common for many herbal producers during the sudden COVID-19 pandemic; they couldn't keep track of the number of customers but treated community members for convulsions, high fever, malaria, infections, and some are midwifery experts. This demonstrates that herbal producers are familiar with illnesses in the community because, by experience, similar illnesses have affected community members in the past. The implication is that once community members come into contact with other unknown illnesses from alien communities' or communities, they will become ill.

##### Reasons for Herbal Usage

To avoid being labeled as COVID-19 patients, participants revealed that most community members preferred visiting Agbo women producers over visiting hospitals for proper check-ups and treatment. Some participants also demonstrated that many western Nigerians are unwilling to change their use of herbal medicine due to its therapeutic and functional benefits, such as increasing sexual performance, using it to prepare soup, bathe, and drink as tea to aid daily activities at work and home. According to one of the participants:

**Participant 3:** ... the most sought-after herbal medicine is Agbo for malaria and typhoid. Especially during this period of lockdown, people are afraid that medical workers will tag any malaria symptoms that make them visit the hospital as COVID-19. And this category of people I treat includes herbalists, prophets, and clerics... and more men than women patronize me.

Social stigma, fear of contracting coronavirus, and the low cost of herbal products were all common reasons for herbal use in Nigeria during the lockdown. Other reasons for choosing herb over hospital services during the strict lockdown included fear of being labeled as a COVID-19 patient and isolation from family. Most herbal wholesalers were patronized by spiritually inclined herbalists, prophets, and clerics. They come to treat malaria and typhoid, among other things. This shows that the social interpretation and meaning attached to the appearance of illness directly shape responses and reactions that affect community members in the same location. One person who took part had this to say.

**Participant 1:** what people are saying is that the outbreak of the novel coronavirus symptoms has been sneezing, dry cough, and sore throat ... and all these have existed before and people have been treating this before. And while nobody is opening their mouth to demand herbal mixture for COVID-19, people are coming to request for Agbo to fight typhoid and malaria... people are afraid of going to the hospital so they wouldn't test them positive for COVID-19.

A search for details about symptoms and hypothetical herb preparations are two common methods that herbal producers use to guide their herb remedies. Another way they recommend treatment to community members is when ill community members patronize herbal producers for treatment experience. This demonstrates that Agbo women producers preserve historical details and use the knowledge gained from previous symptoms and complaints of community members to develop healing actions for community members. Another comment was made by a respondent:

**Participant 4:** I am an Agbo wholesaler; I sell in large quantities to people that hawk herbal medicine by the street and market; and during this period of lockdown, they patronized me more for Agbo to cure typhoid fever and the reason is that malaria and body pains result in typhoid, so people consume this typhoid one more.

Meeting the health needs of community members can be accomplished through the channel of distribution and the locations where the herb is produced and sold. During difficult times such as disease outbreaks, Agbo producers use the services of Agbo hawkers and distributors to reach distant community members who require treatment for malaria, typhoid, body pain, and fever. During a visit to Agbo producers, information about the cure for COVID-19 confirmed cases were shared among several recommendations from social media such as radio and televised broadcast, and those who use and sell Agbo products were the first step in recognizing occupants of sicknesses in the community by many other Agbo producers. To provide more reasons for

**Participant 12:** the reason people sort after malaria and typhoid herbal medicine than others are because it is the most common sickness in this area.... and the middle-aged and elderly people are the most people that buy herbs from me.

This demonstrates that the most common illness in a region guides the hypothetical conclusion of how Agbo producers identify the sicknesses of community members.

### **Categorizing sick individuals at the community level**

Those with diverse sicknesses who experienced multiple episodes of illness will be exempt from their normal social responsibility to seek competent help and try to recover through collaboration with available competent health workers. Some participants argue that the following are reasons why these sicknesses are common in rural-urban areas and why community members are comfortable visiting herbal medicine producers:

**Participant 7:** it is both literate and illiterate that come here, both young and old. People with ties and suit demand for herbal medicine... they complain of the symptoms of "Jedi-Jedi and Opa eyin" and we give them herbs which they use, and they come back to testify that the symptoms they had yesterday have gone.

Patrons of herbal products are diverse, with demographic characteristics such as employed, unemployed, young, and old, and they regularly visit Agbo women shops to obtain herbal drinks for a variety of illnesses such as back pain, hemorrhoids, erectile dysfunction, constipation, bowel cleansing, excess sugar, and malaria



treatments. This shows that herbal product patronage is culturally embedded, and herbal patrons do not question its health implications during or after consumption.

**Participant 8:** anybody using this Agbo can't fall sick. That's the truth because with anybody using this Agbo, there can be nothing like the Coronavirus in them.

Oral assurance is a powerful tool for confirming the quality of Agbo products. Although Agbo producers treat many illnesses at the community level, participant 8 and some other participants maintained that there are some illnesses that they do not cure and that they do not consider providing any long-term place to treat such people.

**Participant 11:** the stress people are passing through a daily couple with mosquito bites, typhoid, malaria, and body pain are the most prominent ones. You know there are some disabilities or brain damage caused by high fever, we can work or try our best on that. But other disabilities like crippling feet or anyone with a spiritual undertone, we don't attend to them here.

Most herb producers specialize in strain and depression combined with other symptoms such as malaria, typhoid, and fever, but illnesses with spiritual undertones and disabilities such as crippled feet and mental disorders are areas Agbo practitioners avoid treating in many cases due to their lack of expertise in these areas. This shows that herbal knowledge on the treatment of unfamiliar illnesses is limited, necessitating the expertise of other professionals in the community. The herbal producers also refer members of the community to hospitals in search of this treatment. According to one of the respondents:

**Participant 3:** If there are spiritual cases like spiritual attacks, I can cure them with herbs. But I don't provide space for people to sit or rest in place.

Herbal experts have identified non-medical diagnostic measures to treat malaria, fever, and spiritual illnesses, but they lack the resources to accommodate a wide range of people suffering from what they call spiritual illnesses. This demonstrates that they do the same for sick people in the community because they do not have enough resources to treat everyone in the community. One of the respondents goes on to say:

**Participant 4:** I don't have any room for people to stay, once you buy, you can take your leave, but there is no problem sitting for a few minutes to confirm how effective my product is.

A few other participants, on the other hand, agree that they temporarily provide a relieving place to rest for sick persons who may be in critical health conditions. This demonstrates that herbal producers use a variety of methods to treat and respond to illnesses in the community.

**Participant 1:** the males are my regular customers here because of the amount of sugar that they consume. People with disabilities and those with hazardous jobs come for the same Agbo that I sell, I believe they are vulnerable and when exposed to sun rays, breeze and cold like the Okada riders I ask them to rest here for a while to check how their condition has improved, but if they are in a haste, I ask them to give me feedback later.

Lifestyle practices and the type of occupation of community members are push factors influencing herb product consumption. Males are categorized as the primary consumers of herbs with alcoholic content. They are identified as commercial motorcyclists, including commercial bus drivers who are constantly exposed to harsh sunlight, and individuals whose poor lifestyle habits, such as those who consume a lot of sugar, put them on the verge of consuming herbal products. This demonstrates that herbal producers rarely advertise their Agbo products, but individuals self-patronize Agbo producers for reasons of convenience, occupation, and lifestyle practices.

**Participant 15:** depending on the sickness. To some sick people, we rally around them here and ask their relatives to be monitoring their progress. At least one person. For instance, the people we ask to stay are mostly pregnant women who are experiencing premature laboring... we have over 800 child deliveries backed up with records here. But some sickness usually has a spiritual undertone, so we avoid them if we cannot bear the spiritual risk. A good example is Jakute (Leprosy) and mental illness.

Each Agbo producer has a unique approach to treating community members. The approach is determined by the type of illness and disease. In some cases, a sick person's family member will mediate between the Agbo producer and the ill person, but if the illness is outside their area of expertise, they avoid both the mediator and the ill person. These illnesses include mental illness and leprosy. This reveals that herbal practitioners limit

themselves to presumptuous areas of expertise and do not attempt to expand their knowledge beyond their area of expertise.

**Participant 2:** I will take care of them here. Before they leave, they would have seen some changes. But I don't provide rooms for them, the seat on this chair.

Many Agbo women producers have gained confidence in their herbal mixtures and their herbal remedy to treat community members who are sick over the years. This assurance extends to other members of the community who may not be sick from common ailments such as body pains or malaria, but are sick because of societal and marital expectations. Many of the participants claim to be experts in dealing with various bio-social and cultural challenges. This demonstrates that capacities and promises about the efficacy of herbs are additional ways Agbo producers sell their products and treat community members.

**Participant 10:** ... I have Agbo for child conceiving/bearing, cure for coronavirus and a good deal of healing sickness, people that regularly patronize me are the king's men, elderly women, lecturers, and students.

Without any known therapeutic trial; concoction through the relevance of previous experiences and incantation are unproven techniques herbal producers use to treat community members, including kings' men, lecturers, students, and the elderly. This demonstrates that education and culture do not oppose the use of the herb in the community to treat specific illnesses.

**Participant 9:** I have Agbo to make barren women pregnant. "we don't carry out the test here. After people come to complain of their ailment, I mix the right leaves and root herbs for them. I haven't come across an ailment I can't handle".

Another participant also stated that:

**Participant 2:** those looking for a child come here majorly, so more women than men patronize me.

More men are identified as alcoholics, STD carriers, commercial drivers, and those exposed to occupational hazards, while more women are barren, elderly women, and those seeking medication for their children patronize herbal producers. This demonstrates that herbal consumption is gendered at the community level.

**Participant 14:** I can treat blindness, stroke, and infections with an herbal mixture

Another participant also maintained that:

**Participant 2:** I sell Agbo for stroke, gonorrhea, and Human Immune Virus (HIV).

Agbo producers' use of observation and spiritual consultations as treatment pathways has proven to be their reliable method of identifying sicknesses in the community.

### **Using herbal knowledge to identify a sickness at the community level**

Traditional experience is used to guide the identification of sicknesses through the use of herbal medicine. There is no guarantee of safety when using this method used by herbal producers because it is entirely subjective and based on experiences, belief systems, hypothetical formatting, inspiration from supernatural powers through divination, and spirituality. The steps for identifying sicknesses in southwest Nigeria are outlined below.

Step 1: Thorough understanding of herbal production activities.

Before identifying or treating illnesses, it is recommended that years of learning be encouraged. Herbal and indigenous medicine ingenuity is constant, with all-around insights from partners such as herb distributors and herb traders across communities. This knowledge is primarily subjective, based on experience, and possibly lacking in proven experimentation.

Step 2: Identifying sicknesses based on feedback from community members.

The feedback of community members assists Agbo producers in learning new methods of identifying illnesses. This is a subjective method widely accepted by most herbal producers for guiding treatment for different sicknesses.

Step 3: Consultation.

To guide the identification of sicknesses, Agbo producers rely on insight and advice from members of their Agbo association. The consultants are older people whom the younger women herbal producers visit, such as relatives or a mentor in the herbal medicine trade.

Step 4: Reference services

When they are unable to treat a specific ailment, they refer patients to another herbal medicine maker or the hospital. They advise their community members to obtain a medical report from the hospital, which will serve as a guide for their understanding of the sicknesses.

Step 5: Recommendation from herbal hawkers and herbal material distributors

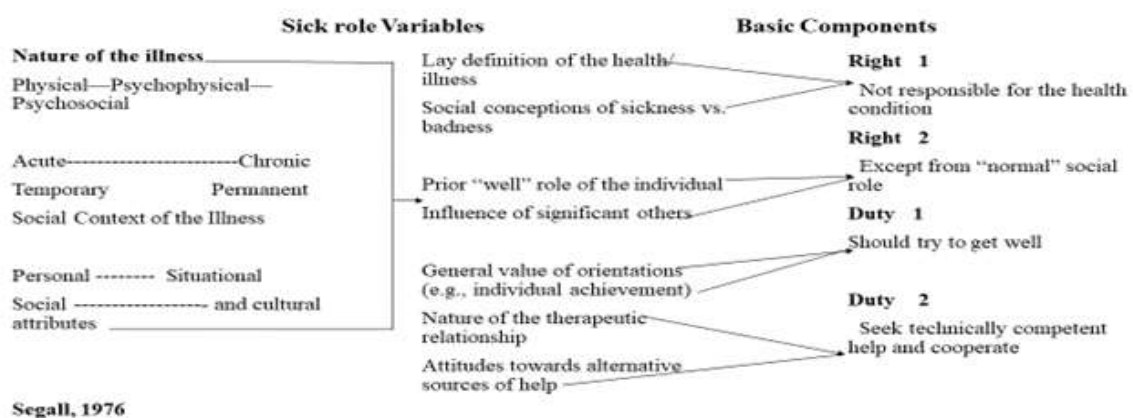
When identifying sicknesses, Agbo producers consider a variety of factors, including information on those who sell herbs and their spiritual and divination sources. They do this to collect robust data that will guide how they identify sicknesses in their communities.

These steps are passed down from generation to generation. It is regarded as a method of treating and identifying sicknesses.

### Agbo production and the Parsonian Model

The Parsonian model (1951:436), as illustrated by Segall (1976), describes four interrelated longstanding classifications of the sick role model. The sick role is divided into two major rights and two major duties. Similarly, Agbo producers agree that when sickness is beyond the occupants' control, they should be temporarily exempt from their normal social responsibility due to their varying inability to perform a normal task or social obligation. The diagram below depicts the sick role variables and basic components that describe both Agbo producers and the social responsibilities of various herb end-users.

Figure1. Parsonian Conceptual Model of Sick Role Variance



In perspective, most Agbo women producers reflect on the social acceptance of Agbo among various communities in southwestern Nigeria. Spiritual and cultural causation of illnesses is asserted by Agbo producers same as psychological, physical, and psychosocial causation of illnesses in the community. They are more at ease treating acute illnesses than chronic illnesses. By doing so, they provide a temporary resting place for their customers and encourage them to leave immediately after their relief. This treatment response is common across genders, but they found that most men in commercial day-to-day businesses, such as motorcyclists, bus and truck drivers, and traders who prefer to consume Agbo mixed with alcohol, did not have this problem. Several producers demonstrate that Agbo usage was in high demand due to community members' lifestyle practices and the socio-demographic characteristics of their customers. As a result, the reproduction of Agbo in the community is linked to the adherence to the recommended instructions of Agbo women. Meaning, the prevalence of illnesses in the community is not only spiritually or culturally influenced, but the lifestyle practices of community members are a cause for concern, which factored in Agbo being readily available to community members despite the stringent COVID-19 lockdown.

During the lockdown, there was stigmatization, medical credibility, and misinformation, including inadequate testing facilities, a limited number of formal quarantine centres, scarcity of intensive care units, administrative failures, fear of dying, community stigma, feelings of insecurity, fear of isolation, the pressure of maintaining social distance, lack of trust of treatment, increased number of COVID-19 cases, the absence of COVID-19 cure, loss of social and emotional capital, and concerns about severing family bonds, all played a role in determining

reverence Agbo producers place on their orientation value of herbal production at the community level. Agbo women producers shared a variety of details about how their customers were afraid of being stigmatized or labeled as COVID-19 patients if they visited the hospital. They believe that the lack of medical credibility during the COVID-19 pandemic in protecting the image of people living with coronavirus symptoms provided an opportunity for them to treat more community members who had previously followed an orthodox medicine method in the community. Both male and female Agbo producers shared their perspectives on the social perception of illness. They demonstrated how Agbo knowledge is shielded to identify sicknesses in community marketplaces.

This suggests that, while community members tolerate Agbo use, most westerners prefer Agbo use because of its socio-cultural values. According to them, a larger number of patrons still believe it is more potent with functional therapeutic benefits in identifying and treating sickness at the community level. This is due to past success stories, existing perceptions of significant others such as family relatives, the cost of Agbo products, purchase locations, distribution patterns through hawkers and nearby herbal shops, and oral assurances of Agbo producers. All of these are the values of orientation that govern the social conception of Agbo production, including divination and incantation used in illness treatment. Agbo producers link their therapeutic relevance and accomplishments to the aforementioned social context of herb production. Lipman and Sterne (1969) emphasize the need to modify the Parsonian paradigm to include cases in which the sick role is not only a temporary state of exemption from primary task obligations to recover, but also to include a terminal sickness model for the aged, mentally retarded, and physically handicapped (Segall, 1976). This also translates to the fact that some Agbo producers explicitly state that they do not treat certain health conditions and are unwilling to take the health risk. Mental illness, leprosy, and some high-level spiritual attacks are examples of such health conditions. Agbo producers adhere to the Parsonian sick role model, which states that patients, as subordinate members of their treatment, are victims of their illnesses and are expected to take responsibility for their care to recover and perform social roles in the community optimally.

## 5. Discussion

The findings presented above add to the existing evidence on whether Agbo women producers have potential in difficult times, particularly during the COVID-19 pandemic. The findings indicate that Agbo women producers demonstrate competency as experienced caregivers trusted in identifying and treating sicknesses of community members- who frequently sought Agbo for malaria, typhoid, and cure for body infections about two to six times per week. Traditional healers frequently use oral discussions with their customers, past experiences, and spiritual consultation to learn about the history of the illness and treatment (Ezekwesili-Ofili & Okaka 2019). When the functional social and psychological coping conditions improve, the social agreement of temporally identifying and treating sicknesses via Agbo decreases (Segall, 1976). Agbo women producers identify and treat sicknesses by using herbs, minerals, animal parts, incantations, and other relevant spiritual and natural techniques based on shared cultural values and beliefs. This finding lends support to other studies (Sofowora, 1982; Ezekwesili-Ofili & Okaka 2019; Okafor & Ham, 1999; Taiwo, 2013), indicating that Agbo producers are initially hesitant to pass on their ancient knowledge and practices to unrelated individuals in the same locality while relying on ancient experiences, observations, mixed knowledge, and ritual practices to diagnose, prevent, remove spells, and manage diseases identified by recommending a mixture of herbal materials.

Talcott Parsons (1951:436) first described the four interrelated longstanding prospect classifications of sick persons who are exempt from their normal social responsibility to seek competent help based on their varying inability to perform normal task obligations 69 years ago (Segall, 1976). The long-standing Parsons model also supports a World Health Organization (2019) finding that identifies herbal medicine as serving over 80 percent of African populations who rely on native practices as primary healthcare to treat ailment due to fear or lack of trust in modern medicine or being labeled for the sickness they live with. Many of the Agbo producers believe the treatment measures of herbal medicine have helped them in identifying sicknesses and combating abrupt health attacks, especially those with COVID-19 symptoms in communities.

Since the lockdown, Agbo producers have sorted for pure roots and bark of specific trees through various channels and recommendations from their distributors and mentors to treat their community members.

malaria, typhoid fever, hemorrhoid, measles, stomachache, and other common ailments are treated by these Agbo women. Agbo producers only demonstrated treating sicknesses with a temporary stay at their Agbo shop, but they did not demonstrate any preventive measures for observing the COVID-19 warning signs, which appear 1-14 days after contact with an infected individual. The sick persons in these communities have varying expectations based on the various episodes of illness (Segall, 1976; Kassebaum & Baumann, 1965; WHO, 2020). According to research, readiness to accept the presence of sickness condition in the body is operationalized as a willingness to consult a health practitioner (Segall, 1976). This is one of the reasons why many of the participants have increased their patronage of Agbo, which is also one of the main reasons why most community members have declined to visit hospitals to avoid being labeled as COVID-19 patients. According to Parsons' sick role model, sick persons must stop performing stressful daily activities and become dependent on significant others for their recovery by utilizing professional healthcare ingenuity resources. The participants in the study demonstrated a high level of social agreement when purchasing Agbo, but consistency in adhering to the prescription of Agbo consumption was mentioned as a silent challenge.

### **Certain application**

Traditional medicine, particularly in Asia and Africa, is becoming more popular among medical doctors as specific modes of pharmacological action are identified. Herbal medicine has been proposed as an alternative therapy for the treatment of gastroenterological reflux disease (Tominaga and Arakawa, 2015). Certain diseases, such as coronavirus, obesity, and metabolic syndrome, are becoming more common around the world. Clinical research should be conducted on data from the mechanism, efficacy, and pharmacological functions. The quantifiable application of herbs stems from the emerging themes identified in this study. This can help health professionals justify, modify, and improve existing strategies. Here's an example of how you could use it.

### **Using individual feedback to improve professional practice in healthcare:**

Feedback is defined as actions taken by external agents to provide information about aspects of someone's experimental performance over a specified period (Kluger & DeNisi, 1996; Ivers et al 2014). Feedback promotes learning, which has a significant impact on patient outcomes and can be used as an improvement strategy for professionals engaged in quality healthcare practices. Although individual feedback can be perceived as threatening and may not help improve care if delivered poorly, both solicited and unsolicited feedback can be used to support and guide the diagnosis of many unknown health causes. As a result, there is a need to comprehend the various levels of patient feedback, such as performance feedback, as well as how and when to apply this feedback to improve the quality of care for various tailored health conditions in specific cases. As the case may be, this can help improve knowledge of health conditions.

### **Using triangulated evidence-based results dispersed across multiple disciplines:**

To best address visible and unnoticed health conditions and crises, it is necessary to apply practical knowledge from various fields of experience, including insights from traditional and herbal healers. This can help address the possibility of behavioral attributes interfering with treatment performance through trial and standard doses such as rabeprazole, which proved to be effective in the treatment of gastroesophageal reflux disease and showed comparable efficacy to orthodox medicine (Tominaga and Arakawa, 2013; Fugiwara and Arakawa, 2009). These trials should be designed to determine how effective it is in everyday practice to identify a sickness. This should explain whether the identified sickness has any efficacy, which is almost always compared to placebo under ideal conditions. The applications for Agbo should minimize negative and side effects. The reality is that most people make health decisions based on cultural beliefs rather than knowing the chemical constituents of the medicinal plant. Many herbal formulations contain chemical substances that cause allergic reactions, such as salicylic glucosides and lactonic sesquiterpenes. Furthermore, some plant constituents, such as safrole, bergapten, and pyrrolizidine Alka, are carcinogenic.

### **Updating synthesis from triangulated evidence of feedback and trials assessment:**

There is potential significance in medical services when professional clinical credibility is improved through the development of evidence from patient feedback and trial assessment in healthcare. This can be useful for establishing a baseline performance. It is available in a variety of formats, including explicit targets and cases for an action plan (Ivers & Grimshaw, 2016).

### **Understand the socio-psychological mechanisms that interact with patients' responses:**

The presence of patients' uniqueness frequently intersects with feedback intervention and outcomes. Outside of a clinical setting, there is a need to understand the pleasant and unpleasant conditions that interact with different patients. Knowing their environmental conditions and what clinical setting will be required can help with complex or unknown illness causation diagnosis. Furthermore, the use of Agbo during pregnancy and breastfeeding should be strictly supervised by a doctor because many herbs have not been studied and the resulting formulations have not been tested (Roland and Torgeson, 1998; MRC, 2007; Firenzuoli and Gori, 2007). The importance of clinical application for herbal medicine is undeniable in terms of its future gain reliability and wise acceptance. This would be beneficial to patients' overall health (Tominaga et al., 2009).

## **6. Conclusion**

Agbo women producers are therapeutic traditional healers who specialize in identifying various sicknesses of community members, such as infections, diseases, and illnesses, particularly malaria and typhoid, which are most common in southwestern communities in Nigeria. Aside from its abilities in herbal medicine, some scholars argue that Agbo has low toxicity, low cost, accessibility, affordability, the first point of contact for users, healing effectiveness, and reliability in combating various forms of illness. In the year 2020, it was linked to patient avoidance of being labeled as COVID-19 patients in southwestern Nigeria, and this will influence at least 60% of the population. Coupled with the postulations that Agbo producers frequently link most diseases and sicknesses to spiritual, socio-cultural, and lifestyle causes, with preventive measures accorded to aid the physical, spiritual, moral, and social well-being, treatment patterns are heavily based on the demand of ill community members. While the reasons for using herbal medicine differ depending on the class and status of the individual. There are experientially relevant measures that are logically consistent with Agbo producers at the community level who are consistent in identifying sicknesses.

## **7. Reference**

1. Adejumo, A., Faluyi, M., & Adejuwon, A. (2013). Role of socio-psychological factors in perceived quality of care rendered by traditional medical practitioners in Ibadan, Nigeria. *Global journal of health science*, 5(6), 186.
2. Adeleye, I. A., Okogi, G., & Ojo, E. O. (2011). Microbial contamination of herbal preparations in Lagos, Nigeria. *Journal of Health, Population, and Nutrition (JHPN)*, 23(3), 296-297.
3. Agunbiade, M. O., Opatola, M., & Titilayo, A. (2012). Herb Sellers' Knowledge on Climate Change and Attitudes toward Sustainable Herbal Harvesting in Nigeria. *Journal of Applied Social Science*, 6 (2), 165-175.
4. Awodele, O., Agbaje, E. O., Abiola, O. O., Awodele, D. F., & Dolapo, D. C. (2012). Doctors' Attitudes towards the use of herbal medicine in Lagos, Nigeria. *Journal of Herbal Medicine*, 2(1), 16-22.
5. Bendelow, G. (2009). *Health, Emotion, and the Body*. Cambridge: Polity Press.
6. Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589-597.
7. Brimah, P., & Adigun, R. (2014). Jedi-Jedi: Towards A Formal Medical Classification of a Sugar Problem in Africans. *RGUILD*, 2(1), 10001.
8. Chavunduka, E. L. Christianity, African Religion and African Medicine in World Council of Churches. 1990.
9. Chukwuneka, F. N., Ezeonu, C. T., Onyire, B. N., & Ezeonu, P. O. (2012). Culture and biomedical care in Africa: the influence of culture on biomedical care in a traditional African society, Nigeria, West Africa. *Nigerian Journal of Medicine*, 21(3), 331-333.



10. Dierenfeld, H., & Merceron, A. (2012). Learning analytics with excel pivot tables.
11. Duru, C., Nnebue, C., Uwakwe, K., Diwe, K., Irene, M. and Iwu, C. (2016). Prevalence and pattern of herbal medicine use in pregnancy among women attending clinics in a tertiary hospital in Imo state, southeast Nigeria. *International Journal of Current Research in Bioscience and Plant Biology*, 2(3), 5-14.
12. EMEA (2005). Guidelines on Quality of Herbal Medicinal Products/Traditional Medicinal Products, EMEA/CVMP/81400 Review. European Agency for the Evaluation of Medicinal Products (EMA), London.
13. Ezekwesili-Ofili O, Onyemelukwe N., Asogwa P, & Orji I, 2014. The bio-load and aflatoxin content of herbal medicines from selected states in Nigeria. *African Journal of Traditional, Complementary and Alternative Medicines*. Pp. 143-147.
14. Ezekwesili-Ofili O., & Okaka C. 2019. Herbal medicines in African traditional medicine. Doi:10.5772/intechopen.80348.
15. Ezeome, E. R., & Anarado, A. N. (2007). Use of complementary and alternative medicine by cancer patients at the University of Nigeria Teaching Hospital, Enugu, Nigeria. *BMC complementary and alternative medicine*, 7(1), 1-8.
16. Eshemokha U. (2019). What do you know about Agbo? Nigeria Health Blog. nimedhealth.com.ng/2019/05/10/what-do-you-know-about-agbo/
17. Fakeye, T.O., Adisa, R. and Musa, I.E. (2009). Attitude and use of herbal medicine among pregnant women in Nigeria. *BMC Complement Alternative Medicine*, 9:53.
18. Firenzuoli, F. and Gori, L. (2007). Herbal medicine Today: Clinical and Research Issues. *Evid Complement Alternat Med*, 4(1): 37-40.
19. Fujikawa, Y. and Arakawa, T. (2009). Epidemiology and clinical characteristics of GRED in the Japanese population. *J. Gastroenterol*, 44:518-534.
20. Goodman, L.A. (1961). "[Snowball sampling](https://doi.org/10.1214/arms/1177705148)". *Annals of Mathematical Statistics*. 32 (1): 148-170. doi:10.1214/arms/1177705148
21. Ivers, N & Grimshaw J. (2016). Practice feedback interventions: 15 suggestions for optimizing effectiveness. *Ann Intern Med*. 164(6), pp.435-441.
22. Ivers, N, Sales, A, Colquhoun H, Michie, S, Foy, R, Francis, J & Grimshaw J. (2014) No more business as usual with audit and feedback interventions: towards an agenda for a reinvigorated intervention. *Implementation Science*, 9(1), 1-8, 14.
23. Jackson, K., & Bazeley, P. (2019). *Qualitative data analysis with NVivo*. SAGE Publications Limited.
24. Jutel A. (2009). Sociology of diagnosis: a preliminary review. *Sociology of health and illness*, 31,2, 278-99.
25. Jutel,A.(2010). Medically unexplained symptoms and the disease label. *Social Theory & Health*, 8(3), 229-245.
26. Kadiri, A. B. (2008). Evaluation of medicinal herbal trade (Paraga) in the Lagos State of Nigeria. *Ethnobotanical leaflets*, 2008(1), 90.
27. Kassebaum, G. G., & Baumann, B. O. (1965). Dimensions of the sick role in chronic illness. *Journal of health and human behavior*, 16-27. DOI: 10.5897/IJBC11.163
28. Kunle, O. F., Egharevba, H. O., & Ahmadu, P. O. (2012). Standardization of herbal medicines-A review. *International Journal of Biodiversity and Conservation*, 4(3), 101-112.
29. Kluger, A. & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254.
30. Lawal, B., Shittu, O. K., Kabiru, A. Y., Jigam, A. A., Umar, M. B., Berinyuy, E. B., & Alozieuwa, B. U. (2015). Potential antimalarials from African natural products: A review. *Journal of intercultural ethnopharmacology*, 4(4), 318.
31. Li, S., Odedina, S., Agwai, I., Ojengbede, O., Huo, D., & Olopade, O. I. (2020). Traditional medicine usage among adult women in Ibadan, Nigeria: a cross-sectional study. *BMC complementary medicine and therapies*, 20(1), 1-7.
32. Lipman, A., & Sterne, R. S. (1969). Aging in the united-states-ascription of a terminal sick role. *Sociology and Social Research*, 53(2), 194-203.
33. Linneberg, M. S., & Korsgaard, S. (2019). Coding qualitative data: A synthesis guiding the novice. *Qualitative Research Journal*.

34. Lubkin, I. M., & Larsen, P. D. (Eds.). (2006). *Chronic illness: Impact and interventions*. Jones & Bartlett Learning.
35. Mafimisebi, T. E., Oguntade, A. E., Ajibefun, I. A., Mafimisebi, O. E., & Ikuemonisan, E. S. (2013). The expanding market for herbal, medicinal, and aromatic plants in Nigeria and the international scene. *Med Aromat Plants*, 2(144), 2167-0412.
36. Mbah, F. (2020). Nigeria COVID-19 survivor: An experience I don't wish on anyone' <https://www.Aljazeera.com/news/2020/4/7/nigeria-covid-19-survivor-an-experience-i-don't-wish-on-anyone>.
37. Mahmud, A., & Islam, M. R. (2020). Social Stigma as a Barrier to COVID-19 Responses to Community Well-Being in Bangladesh. *International Journal of Community Well-Being*, 1-7.
38. Mahomoodally, M. F. (2013). Traditional medicines in Africa: an appraisal of ten potent African medicinal plants. *Evidence-Based Complementary and Alternative Medicine*, 2013.
39. Mander M, 1998. Marketing of indigenous medicinal plants in South Africa: A case study in KwaZulu-Natal, FAO, Rome, Italy.
40. McPherson, S., & Armstrong, D. (2009). Negotiating 'depression' in primary care: a qualitative study. *Social science & medicine*, 69(8), 1137-1143.
41. Mik-Meyer, N., & Obling, A. R. (2012). The negotiation of the sick role: general practitioners' classification of patients with medically unexplained symptoms. *Sociology of health & illness*, 34(7), 1025-1038.
42. NAFDAC (2008). Nigeria Journey: Some administrative guidelines. <Http://www.nigerianafdac.org/journey.html>.
43. NAN, 2019. Kidney disease: Why you should not take Agbo. *TheGuardian Nigeria*, March 18. <https://guardian.ng/features/health/kidney-disease-why-you-should-not-take-agbo/>
44. NCDC (2020). NCDC Coronavirus COVID-19 Microite. <https://covid19.ncdc.gov.ng/>
45. Offiong, A V. (2020). Nigeria: easing a lockdown, while ignoring WHO guidelines. <https://gga.org/nigeria-easing-a-lockdown-while-ignoring-who-guidelines/>
46. Ogaugwu, C., Mogaji, H., Ogaugwu, E., Nebo, U., Okoh, H., Agbo, S., & Agbon, A. (2020). Effect of Weather on COVID-19 Transmission and Mortality in Lagos, Nigeria. *Scientifica*, 2020.
47. Ogbera, A. O., Dada, O., Adeleye, F., & Jewo, P. I. (2010). Complementary and alternative medicine use in diabetes mellitus. *West African journal of medicine*, 29(3).
48. Ogbu E & Uzoobo, C. (2020). Impacts of Environmental Challenges on Medicinal Plants and the Possibilities for Increased Sustainable Agriculture. *Covenant Journal of Entrepreneurship*, 4(1).
49. Okafor C., & Ham R, 1999. Identification, utilization, and conservation of medicinal plants in South eastern Nigeria. Issues in African Biodiversity. *The Biodiversity Support Program*. No.3
50. Okeke, T., Okafor, H. and Uzochukwu, B. (2006). Traditional healers in Nigeria: perception, of course, treatment and referral practices for severe malaria. *Journal of Biosocial Science*, 38(4): 491-500.
51. Omobuwajo, O. R., Alade, G. O., & Sowemimo, A. (2008). Indigenous Knowledge and practices of women herb sellers of Southwestern Nigeria.
52. Oreagba, I. A., Oshikoya, K. A., & Amachree, M. (2011). Herbal medicine use among urban residents in Lagos, Nigeria. *BMC Complementary and Alternative medicine*, 11(1), 1-8.
53. Oshikoya K., Njokunma O., Chukwura H., & Ojo O., (2007). Adverse drug reaction in Nigerian children. *Pediatric and perinatal drug therapy*. Pp. 81-88.
54. Oshikoya, K. A., Senbanjo, I. O., Njokanma, O. F., & Soipe, A. (2008). Use of complementary and alternative medicines for children with chronic health conditions in Lagos, Nigeria. *BMC Complementary and Alternative Medicine*, 8(1), 66.
55. Ramachandran, S. (2020). The COVID-19 Catastrophe in Bangladesh. The diplomat. *South Asia*, April, 29.
56. Ramaci, T., Barattucci, M., Ledda, C., & Rapisarda, V. (2020). Social Stigma during COVID-19 and its impact on HCWs outcomes. *Sustainability*, 12(9), 3834.
57. Ring, A., Dowrick, C. F., Humphris, G. M., Davies, J., & Salmon, P. (2005). The summarizing effect of clinical consultation: what patients and doctors say and do not say when patients present medically unexplained physical symptoms. *Social science & medicine*, 61(7), 1505-1515.
58. Roland, M. and Torgeson, D. (1998). What are pragmatic trials? *BM*, 9:397-401.

59. Sabo, B., Joffres, M. R., & Williams, T. (2000). How to deal with medically unknown symptoms. *Western Journal of Medicine*, 172(2), 128.
60. Segall A. 1976. The Sick Role Concept: Understanding Ill Behavior. *Journal of Health and Social Behaviour*. Vol.17, No.2. Pp.162-169. <https://www.jstor.org/stable/2136342/>
61. Sharma, S. (2015). Current status of the herbal product: a regulatory overview. *Journal of pharmacy & bioallied sciences*, 7(4), 293.
62. Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
63. Shewamene, Z., Dune, T., & Smith, C. A. (2020). Use of traditional and complementary medicine for maternal health and wellbeing by African migrant women in Australia: a mixed-method study. *BMC complementary medicine and therapies*, 20(1), 1-12.
64. Sofowora A, (1993). Medicinal plants and traditional medicine in Africa. 2nd ed. Somerset: *John Wiley and Sons Ltd*. Pp. 55-62.
65. Sofowora, A., Ogunbodede, E., & Onayade, A. (2013). The role and place of medicinal plants in the strategies for disease prevention. *African Journal of Traditional, Complementary and Alternative Medicines*, 10(5), 210-229.
66. Soodyall, H., & Kromberg, J. G. (2016). Human Genetics and Genomics and Sociocultural Beliefs and Practices in South Africa. In *Genomics and Society* (pp. 309-319). Academic Press.
67. Tilburt, J. C., & Kaptchuk, T. J. (2008). Herbal medicine research and global health: an ethical analysis. *Bulletin of the World Health Organization*, 86, 594-599.
68. Toffler, A. (1984). Future shock (Hardcover). *Turtleback Books*. Isbn13: 9780808501527.
69. Tominaga, K., Kido, T., Ochi, M., Sadakane, C., Mase, A. and Okazaki, H. (2009). A randomized placebo-controlled, double-blind clinical trial of rukkunshito for patients with non-erosive reflux disease refractory to proton-pump inhibitor: G-PRIDE study. *J. Gastroenterol*, 49:132-1405.
70. Tominaga, K. and Arakawa, T. (2013). Kampo medicines for gastrointestinal tract disorders: a review of basic science and clinical evidence and their future application. *J. Gastroenterol*, 48: 452-462.
71. Tominag, K. and Arakawa, T. (2015). Clinical applications of Kampo medicine (rillunshito) for common and /or intractable symptoms of the gastrointestinal tract. *Front. Pharmacol*, <https://doi.org/10.3389/fphar.2015.00007>.
72. Truter, I. (2007). African traditional healers: Cultural and religious beliefs intertwined holistically. *South African Pharmaceutical Journal*, 74(8), 56-60.
73. Werner, A., & Malterud, K. (2003). It is hard work behaving as a credible patient: encounters between women with chronic pain and their doctors. *Social science & medicine*, 57(8), 1409-1419.
74. World Health Organization (2019). WHO global report on Traditional and complementary medicine 2019. *World Health Organization* <https://www.who.int/traditional-complementaryintegrative-medicine/WhoGlobalReportOnTraditionalAndComplemen>
75. [taryMedicine2019.pdf?ua=1](https://www.who.int/traditional-complementaryintegrative-medicine/WhoGlobalReportOnTraditionalAndComplemen).rtOnTraditionalAndComplementaryMedicine2019.pdf?ua=1.

#### **INFO**

**Corresponding Author: EMMANUEL E. OGBU, Medical Sociology University of Ibadan, Nigeria.**

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