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Health System Factors Influencing the Utilisation of Herbal Medicines in the Eastern Region of Ghana a Qualitative Study

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Abstract

Background

Healthcare systems worldwide incorporate traditional, complementary, and integrative medicine (TCIM) through herbal medicine (HM) as an essential component of healthcare delivery and as a main medical option for large percentages of populations throughout sub-Saharan Africa,specifically Ghana.

Patients' continued use of herbal medicine services in Ghanaian healthcare facilities shows that herbal medicine has gained policy recognition within the national healthcare system framework. To date, studies conducted in Ghana have mainly assessedwhy individuals use herbal medicine but have not yet conductedmuch research on how healthcare system factors affect service use, especiallywithin the Eastern Region.

The theoryof care seeking behaviourwas used as a framework to analyse health system factors impacting the use of herbal medicine facilities by patients across selected public herbal medicine centres inthe Eastern Region of Ghana.

Methods

A qualitative exploratory descriptive design was used. The study purposively selected 19 patients who received care at the Centre for Plant Medicine Research (CPMR) and the Eastern Regional Hospital Koforidua herbal medicine clinic. With participant permission, data were collected by audio-recording in-depth semistructuredinterviews,which took place either in English or Twi. Data analysis was conducted via Braun and Clarke’s thematic content analysis approach. Methodological rigour was ensured by implementing approaches that validate credibility as well as transferability, dependability and confirmability.

Results

Four primary health system-related themes were revealed: the positive attitudesof health workers, service delivery, affordability and availability. Patients indicated that medical herbalists offered respected and patient-centred treatment combined with active participation through the use of local language communication and family members' participation, whichbuilt and bolstered trust and customer happiness. Patients viewed service delivery at herbal clinics as well-organised in addition to being time-saving and responsive, but the operational hours and the absence of inpatient service, as well as the lack of surgical capacity and the spread of unlicensed herbal practitioners, were important concerns. Althoughpatients needto travel long distances to certified public herbal medicine facilities, this has led them to seek help from unregulated providers because of insufficient availability and poor geographic distribution.

Conclusion

The research findings show how health system factors trigger the use of herbal medicine among individuals in the Eastern Region of Ghana, whereascultural factors aresecondary to this effect. Affordable patient-focused services combined with provider positivity and service accessibility encourage herbal medicine utilisation. However, insurance gaps, along with infrastructural needs and regulatory shortcomings and facility misdistribution, create barriers to thefull use of herbal medicine. The development of herbal medicine integration within Ghana's healthcare system through NHIS coverage combined with suburban public herbal clinic creation and regulatory improvements and infrastructure funding is fundamental for improving equal access and advancing safety and universal health care and the Sustainable Development Goals.

BACKGROUND OF THE STUDY

By adopting Lauver (1992)the theory of care-seeking behaviour", this research sought a comprehensive and systematic framework for studying herbal medicine use. Diane Lauver developed the CSB theory in 1992 from Triandis' theory of general behaviour. This theory provides useful knowledge about health behaviors, which enables healthcare professionals to understand patients' care-seeking actions.

The theory shows that health behaviour probability depends on health behaviour-related psychosocial variables, including affect, utility, norms, and habits, along with facilitating conditions. Health behaviour in particular situations can be predicted by psychosocial variables and facilitating conditions according to this theory. Healthcare professionals believe that HM use for treating medical conditions or patients' selection of herbal/traditional medicine treatment can be tested via theories (Lauver, 1992).

“Affect” denotes feelings that accompany care-seeking situations such as anxiety toward care and uncertainties connected to treatments while also including diagnostic testing processes as well as outcomes. Emotional reactions to healthcare options sometimes drive patients to favour one medical approach built upon conventional practice or alternative medicinal plants (Lauver, 1992)

“Utility” refers to the expected outcomes, which clarify consumers’ expected and total value from performing health-related activities or behaviours (Lauver, 1992). The same holds because patients consciously perform behaviors that they think will benefit their health. Their choice to visit a health facility or select a treatment reflects their belief in the potential benefits of the treatment they receive.

“Norms” define the personal and social codes that push people towards conducting healthy activities (Lauver, 1992). The choice of treatment option depends strongly on individuals’ personal views, sociocultural traditions, and health principles. The social norm in this context derives from the fact that decisions to select one medical treatment option over another emerge from recommendations given by a large percentage of society members.

When sickness or signals of sickness appear, people generally demonstrate their usual **'habits'**. A person's past care-seeking experience primarily drives their choice to visit or avoid health facilities (Lauver, 1992). External factors that allow people to seek health care fall under the category of

"facilitating conditions." These include socioeconomic status, availability, accessibility, cost-effectiveness, and health insurance. Their characteristics could parallel some health belief model practices that block health-care access (Lauver, 1992).

The theory of CSB states that health-seeking behaviour depends directly on the link between **psychosocial variables** and **facilitating variables**. Psychosocial variables mediate the indirect influence of clinical and sociodemographic variables on health behaviour. Research has focused on examining health system factors that shape herbal medicine use in the Eastern Region of Ghana by investigating how variables related to health-seeking behaviour are linked (Lauver, 1992).

METHODOLOGY

Design

This qualitative study employed an explorative, descriptive approach. Consequently, the researcher thoroughly investigated and described patients' experiences with health system factors in their quest to use HM for treatment at the two HM clinics in Eastern region of Ghana (Gore et al., 2024).

Setting

The study was conducted at the Center for Plant Medicine Research (CPMR) and the Eastern Regional Hospital Koforidua (ERHK) HM clinic. The CPMR is formally called the Centre for Scientific Research into Plant Medicine (CSRPM). The establishment of the CPMR by the Government of Ghana in 1975 was the result of the dream and vision of Dr. Oku Ampofo, a renowned allopathic medical practitioner who, after having personal experience with the therapeutic value of herbal medicines for himself or herself and his or her father, became an apostle of herbalism at a young age.

Among the services provided by the facility are herbal product testing for all herbal products and animal experimentation; the facility is currently the only institution in Ghana with an adequately maintained animal experimentation unit. In addition to conducting clinical research, the clinic also provides outpatient services to patients and has a library open to the general public.

A hospital in Ghana's Eastern Region, the Eastern Regional Hospital, Koforidua (ERHK), was established in 1926 and is located in Koforidua. There are two medical herbalists, two nurses, and one in the hospital's herbal clinic unit, which operates on an outpatient basis. According to the department, the department sees an average of approximately three patients every day, with gout, arthritis, hypertension, and diabetes mellitus being the five most common diseases recorded at the hospital.

Target population

The study population consisted of patients who sought treatment at the CPMR and ERHK herbal clinics.

Sample size and sampling technique

A purposive sampling method was used to select 19 participants for this study.

Method of data collection

To obtain approval, the School of Nursing and Midwifery (SONM) submitted a letter to the heads of both educational institutions. A nurse at the herbal clinic was given the responsibility to recruit eligible participants to enrol in the study. The participants chose the date, time and place for the interview. The participants were provided with an information sheet for reading and a consent form to be completed before the interview. The questions brought up by the participants then received appropriate answers.

The interviews lasted 40–60 minutes and were performed in English or Twi while being recorded. The primary objectives of the research study drove its focus. Along with the recording, a field note was taken; everyone received a hand sanitiser for hand cleaning and disinfection. We provided participants who did not have nose masks before their face-to-face interviews began. After the interview, the participants received a token while being informed that the researcher might return for additional questions and were asked for clarifications if necessary.

Data Management

The confidentiality of the data collected from the participants was maintained through appropriate protection methods. None of the nineteen participants mentioned their real names. During data analysis, the pseudonyms HMP1–HMP19 replaced the codes assigned to individual participants (Patel & Patel, 2019). After data collection for each participant, one folder was created using Microsoft, which contained all the recordings and transcripts. Audio recordings together with transcripts and field notes were stored independently from participant consent forms alongside their demographic data in a secured storage locker. Data storage took place on both hard drive and researcher's Google drive to safeguard against data loss.

Data analysis

The demographic details of the participants were analysed through descriptive measurements in the initial part. The research supervisors supported the manual data analysis process. The interview transcripts from English sessions were produced without any omission of content. The researcher’s understanding of Twi was used to both translate and transcribe Twi interviews. A person experienced in Twi double-checked the transcription to validate its correctness. The proposed analysis process was used to perform thematic content analysis of the data. The interviews took place concurrently with the data collection, which produced information that guided the next series of interviews (Ahmed, 2024; Swarooprani, 2022).

Reflexivity statement

As the principal investigator, my dual identity as a nurse educator and registered nurse from the Eastern Region of Ghana for more than ten years strongly influences how I interpret this investigation (Patel & Patel, 2019). Throughout my professional journey, I have gathered extensive knowledge about how herb-based medications contribute to pain management in Ghanaian healthcare institutions. My closeness to participants through shared culture and identity and my knowledge of regional healthcare facilities informed my research, but I remain conscious that my background could lead to biased interpretations. Throughout both designing and conducting this research, I actively practised self-review of my experiences to prevent personal stories from dominating participant accounts (Ahmed, 2024; Gore et al., 2024).

To protect the integrity of the study's research findings, I used strict research methods to reduce bias through research bracketing of my own opinion. The study followed a rigorous triad of methods, including data triangulation to enhance validity, peer debriefing to eliminate researcher bias, and sustained audit trail documentation. I used open-ended questions during data collection so that the participants could express their ideas freely and that the narrative would emerge directly from their individual experiences without being shaped by their own professional background. I ensured the participants' complete anonymity and created a judgement-free environment when discussing the power dynamic between my role as an educator and their participation in the study. This research uses a methodologically unbiased approach to reveal study results on herbal medicine usage in the Eastern Region while maintaining transparency throughout (Ahmed, 2024).

Philosophical underpinning

Interpretive, humanistic and naturalistic philosophies form the foundation for qualitative research because they focus on subjective interpretative meaning-making processes. The central aim of qualitative research focuses on discovering the core meanings and patterns that influence human activities inside particular social settings and time periods (Asmawi & Alam, 2024). Reality combined with knowledge exists as various intricate social constructions that defy permanent objective status when viewed from this perspective. The constructivist paradigm leads qualitative research methods to value participant interpretations as accurate representations of reality while necessitating interactive research reflexivity. This approach allows for a deeper holistic understanding that surpasses what quantitative methods alone can achieve (Ahmed, 2024; Boswell & Babchuk, 2023).

Ethical consideration

Before the actual study took place, the school of nursing and midwifery (SONM) at the University of Ghana sent an introductory letter to the Ethics Review Committee of the GHS with reference number GHS-ERC 038/12/20 to apply for ethical clearance. Approval for the research project was granted by both the ERHK and the CPMR facilities after an introductory letter to these two healthcare facilities seeking approval was written. Approval from the managers of the two herbal clinics was part of the

approval process. The study's primary objectives were clarified for all participants, and recruitment could only continue with their signed consent.

The researcher explained the advantages and possible downsides for everyone who chose to join the study. Those who volunteered to participate were given an information sheet and a consent form to sign for their review. The researcher further mentioned that he had no biases and that the research was for academic purposes only and that the data were presented as exactly stated by the participants.

After signing the consent form, the participants were told that they could decide to leave the study whenever they wanted. To ensure privacy, each collected demographic dataset, as well as tape recordings and transcripts, was separately stored in a secured locker. The data were accessible only to the primary investigator and the two supervisory members. The participants were assigned the pseudonyms HMP1 through HMP19 when anonymization was necessary. The researcher's hard drive stores soft copies of the transcriptions in password-protected electronic folders to maintain data security.

Methodological Rigour

In a qualitative study, rigour depends on trustworthiness, which is the capacity to conclude that the researcher's final result or conclusions accurately reflect the participants' replies. As a result, credibility, transferability, dependability, and confirmability are essential in establishing trustworthiness in qualitative research (Ahmed, 2024; Asmawi & Alam, 2024).

Credibility

The credibility of the study was established by demonstrating that the phenomenon under investigation is accurately represented. The study's inclusion criteria were met via a purposive sampling method, which was employed to enrol participants. The researcher developed a positive connection with the participants and provided thorough explanations of all the required stages to create credibility. After each interview, careful checking was performed to ensure that the participants' responses were documented. During the interview, sufficient time was spent with the participants to ensure that much information was elicited (Boswell & Babchuk, 2023).

It took an average of 5 days to transcribe and analyse one interview before the next one could be conducted. The researcher and supervisors classified the transcribed data individually and then compared and agreed on the codes that best represented the participants' positions in the study. Additionally, a field note was made to document participants' emotional responses to specific questions. In addition, a pretest was carried out to determine whether the data collection instrument accurately assessed all of the research objectives (Gore et al, 2024)

Transferability

The degree to which qualitative research findings may be generalised or transferred to different contexts or settings is referred to as transferability. To ensure this, a detailed description of the research settings,

participants' demographics, an audit trail of the audiotapes, transcribed data, and field notes was kept as a source of reference, along with a detailed description of the entire process and what happened at each point in time to make it easier for another researcher to be able to replicate in a different research setting (Swarooprani, 2022).

Dependability

In qualitative research, dependability is described as the consistency of data throughout time and across different environments. In quantitative studies, it can be compared with the concept of reliability (Ahmed, 2024). To accomplish these goals, specific and concise questions were asked of the participants to elicit appropriate replies relevant to the research objectives. Therefore, an audit trail of records, events, procedures, processes, and decisions made at a specific time in the study process was created. Within five days, two different coding sessions were conducted on the transcribed data. First, a comparison was made between the first and second codes, after which the necessary adjustments were implemented. Finally, the study supervisor completed an audit trail to assess the participants' response information (Asmawi & Alam, 2024)

Confirmability

Confirmability "is the extent to which the findings may be confirmed or corroborated by others under similar conditions(Patel & Patel, 2019). As a result, the study's findings were presented to reflect the experiences of the participants accurately. In addition, a field note was kept of the participants' emotional responses, gestures, and mannerisms during the data collection period. To avoid leading questions, open-ended questions were frequently asked. In addition, the researcher set aside his own prejudices, opinions, and motivations to report the data acquired precisely as stated by the participants. Finally, audit trials were maintained to demonstrate that the study was completed correctly (Ahmed, 2024).

RESULTS

Demographic characteristics of the participants

The participants' demographic characteristics captured in this study included age, marital status, number of children, occupation, gender, educational level, religion, and ethnic group. A total of nineteen (19) patients were interviewed in this particular study.

Table 1
Participants' demographic background

Pseudonyms	Age	Gender	Marital Status	Number of children	Occupation	Educational level	Religion
HMP1	30	F	Married	1	Social worker	Tertiary	Christian
HMP2	44	M	Married	3	Auditor	Postgraduate	Christian
HMP3	44	F	Married	6	Cleaner	Senior High School	Christian
HMP4	39	M	Single	None	Care taker	Junior High School	Christian
HMP5	57	M	Married	3	Assistant Editor	Tertiary	Christian
HMP6	54	M	Married	2	Pastor	SHS	Muslim
HMP7	49	M	Married	4	Public Servant	SHS	Christian
HMP8	52	M	Married	2	Teacher	Tertiary	Christian
HMP9	30	F	Married	1	Hairdresser	JHS	Christian
HMP10	47	M	Married	4	Mechanic	SHS	Christian
HMP11	46	F	Married	3	Trader	SHS	Christian
HMP12	28	M	Single	None	Reservation supervisor	Tertiary	Christian
HMP13	58	M	Married	1	Driver	JHS	Christian
HMP14	68	M	Married	1	Shop keeper	SHS	Christian
HMP15	27	F	Married	None	Trader	SHS	Muslim
HMP16	34	F	Single	None	Nurse	JHS	Muslim
HMP17	42	F	Married	4	Trader	SHS	Christian
HMP18	37	M	Single	None	Trader	Tertiary	
HMP19	33	F	Single	None	Nurse		

Table 2
Organisation of major themes and subthemes

Themes	Subthemes
Health system factors	• The Positive Attitude of Healthcare Providers • Service Delivery • Affordability • Availability

Health System Factors

In response to the second research question, *what are the health system factors that affect the use of herbal medicine?* The particular theme describes the characteristics of the health facility or healthcare delivery system, such as rules, regulations, policies and mode of service delivery. Currently, Ghana is on the verge of integrating entirely traditional medicine into the healthcare delivery system. However, this integration is affected by many factors in the chain of health care delivery, which ultimately influence the health-seeking behaviour of most patients.

The patronage of HM, a component of traditional and alternative medicine, is increasing in Ghana. However, institutional or organisational factors propel patients to choose a particular treatment modality: conventional or herbal medicine. The participants in this study shared their experiences regarding the factors that affect them in their quest to seek health care with herbal medicine in the two herbal medicine clinics in the Eastern Region. Four (4) subthemes emerged: positive attitudes toward health professionals, service delivery, affordability, and availability.

Positive Attitudes of Health Professionals

The participants described their interactions with various health staff in herbal medicine clinics versus those in orthodox facilities. For example, several participants indicated that medical herbalists pay them more attention by asking them numerous questions to ascertain the main cause of the condition they presented. However, when the participants were asked to compare this to the doctors in the orthodox unit, several stated that they paid less attention.

…Because they have few people to attend to at the end of the day, and if you go there, they have the time to ask you more of the questions… I have been to the orthodox doctors so many times too, but the first time I went to the herbal clinic, I just liked it. Therefore, if I have been stuck, it might be a factor too, and the way he gets the time to ask you questions, it also counts… HMP1.

"However, it is difficult even to go to the orthodox and say, 'Oh doctor, what is wrong with me?' They may not even have time for you, but here, any question you ask, they are ready to respond to it, and I think that it is a good thing to do. It encourages you to come. HMP10.

"And I think the doctors here are much friendlier than the orthodox side because it looks like there's too much pressure; they do not spend much time on patients, so you do not truly get much information like the herbal. HMP16.

Some participants also stated that nurses and medical herbalists at herbal medicine clinics are patient and tolerant in dealing with their patients. The participants mentioned that medical herbalists would not attend to you in a rush. Instead, they make you feel relaxed and have good facial expressions.

… Therefore, for me, patience and time were factors for me because I just liked the fact that my first time of being there, I was being attended to, not in a rush… HMP1.

I can say that both the doctors and nurses at that place are patient and open to everyone who visits. They have very good facial expressions… HMP4.

… Oh, they are okay; it is 100% better. If you go to an herbal hospital, they treat you nicely; they have patience and tolerance… HMP14.

Most participants in this study mentioned that medical herbalists, nurses and security personnel at herbal medicine clinics were receptive. They were received calmly and nicely. This made them comfortable and feel at home in expressing themselves and asking the necessary questions. Some said that medical herbalists at herbal clinics were more receptive than those on the orthodox side.

… The doctor received me calmly. He also asked me so many questions. Afterwards, he took my card and compared what I was saying to what is in my history… HMP2.

… I think that they receive you more, and you feel more comfortable with them than the orthodox side… HMP10.

…They are good; they always try to welcome you, make you feel at home, and make you feel like going and coming back, so they are good. Therefore, for this place, I cannot exempt anybody; when you come here, the securities are very good, and everybody is good. That is why people are here, so I think their services are so good… HMP12.

Few study participants said that they were treated with respect to medical herbalists. When their experience at the herbal clinic was recorded, some stated that they were not shouted at or humiliated in any manner, in contrast to conventional institutions, where they are occasionally treated with contempt. The participants mentioned that medical herbalists usually talked to them politely.

…The herbal doctor spoke to us nicely and treated us with respect… HMP3.

…No insult here. I did not see any insult here like in other hospitals; when you are sick, they will be insulting you: Why do not you sit here? Why do not you sit here? Go and sit here! As for this place, I did not see anything such. HMP11.

… However, when I was here, the way the doctor talked to me politely, they gave me medicine after that… The nurses at the herbal centres are very welcoming and respectful… HMP17.

Some participants expressed great satisfaction with the caring character and kind-heartedness of the medical herbalists, nurses, and medical laboratory scientists who worked in the herbal clinics. In addition, other participants reported that they were given encouraging words and pieces of advice, which they felt provided them with a sense of security and comfort.

They listen to all your problems, talk to you, give you advice, provide you with medicines, and offer encouragement. They ask you to take heart, for everything will be well… They also provide you with advice, followed by prescribing medicines and offering encouragement. They ask you to take heart, for everything will be well; in fact, they are caring… HMP4.

... Oh, even the lab people are kind. They ask you what your problem is, and then I tell them that I want to do this and this, and they make it. The other time, when I came here, I told them that I am hungry because of the medicine, and I want to do a lab before I go and eat because I want to show the lab to the doctor, and then the man gave it to me. So as for that one, they are kind… HMP11.

…Doctors are good. The doctors are caring; they treat me well… HMP18.

A small number of study participants claimed that medical herbalists, after prescribing medications, will ask you to visit the dispensary and pick up the prescription, bring it back to the office to be validated, and then give you some instructions on how to use the medication before allowing you to leave.

…They write the drugs; you will go and make payments at the bank, and then you go to the dispensary for them. Afterwards, he will let you bring it back to him so he will be sure of it… he will teach you about how you will take it, and I'm happy about that… HMP2.

…However, they show you how to drink it. As for that one, they show you. They told us that when you drink it more, you can get side effects…HMP11.

Furthermore, few participants were happy that medical herbalists called to remind them of their review dates. However, they were also pleased that medical herbalists offered participatory care involving patient relatives.

… Therefore, when my drugs got finished, the doctor called me, and I was happy to even receive a call from a doctor to inform me that it was time to be at the hospital. I even called all my children to inform them about it… HMP2.

… That one too is fine, especially when I bring my mother here. When I go inside with my mother, the doctor sometimes asks me questions about her, making it feel like a casual conversation. I do not know how to put it, but they are very good… HMP7.

Service Delivery

According to the study, in terms of service delivery, few participants were pleased by the orderly manner in which services were provided at the herbal clinic. However, some were happy that there was no preferential treatment for anyone, patients were served according to arrival time, and no one was made to jump the queue. The participants also expressed considerable interest in the concept of time consciousness. Their opinion was that health professionals at the herbal clinic provide their services more quickly than those at the conventional facility do, which they felt was an advantage.

… Well, I think for me it is okay because there is orderliness; in the morning when you come, depending on the time you come, you get a number, and then it means that it follows, so there is not somebody jumping the queue and those kinds of things… HMP8.

…Coming to this place and looking at their service, they are time conscious and attentive too. HMP6.

…They do not waste time. That one – they do not waste time at all. I can go to Pantang Hospital or Madina. Since morning you will sit there; they will say the lab is not ready, and you will sit there 3–4 hours before the lab will come… HPM 17.

In addition, some participants expressed the opinion that herbal medicine practitioners and other staff members who work at herbal clinics provide satisfactory customer service to their patients. This is attributed to the fact that they would always ask how you are doing after taking herbal medications. Additionally, they spend enough time handling their patients and even go to a large extent to ask participants if they have experienced any side effects after taking drugs.

… This is similar to marketing, as they provide excellent customer care. They have time for their patients and ask how you feel after taking the medication, but with the orthodox medicine I went for, no one ever asked me about it… They will even ask you how you are doing after taking their herbal drugs. Did you have any side effects? ... Therefore, they have very good customer care… HMP2.

… Customer care is very good because when you come here early in the morning, they give you numbers, and they follow those numbers throughout, and then they do not keep you long here… HMP7.

A few participants stated that herbal medications are easily accessible and that medical herbalists provide a sufficient amount of drugs, which are beneficial in treating sickness conditions.

… Okay, I can say if you go to the herbal doctor, they give you a lot of medicine, and they are more helpful than the orthodox… HMP4.

… However, with our herbal medicine, something like Taabea bitters, it is good and easy to access… HMP6.

Moreover, most of those who took part in this study were dissatisfied with the number of quack herbal medicine practitioners who have penetrated the field of herbal medicine in recent years. Moreover, various individuals believe that quack practitioners gain money by manufacturing some concoctions that

they sell to the public. Therefore, many participants called for things to be streamlined and well-regulated to sanitise the practice of herbal medicine in the country.

… It looks like there are many fake ones in the system. People just try to exploit us just to make money and sell some concoctions and useless things, you understand, and it does not help… Okay I would say number one, there should be regulation. It looks like the industry is not properly regulated, and charlatans are taking advantage of it and selling fake medicines… HMP5.

… Because there are people up there who are just making money, they have not done any research on the medicine that they are selling; they just go out and just take one or two things, and they say they are into herbal medicine… HMP6.

…We have many quacks in the system, so we need to streamline things so that people will believe in it, so for me, it is the best alternative medicine…HMP8.

Moreover, the bitter taste of herbal medicines was a concern raised by few participants in this study. Some herbal medicines taste and smell badly, something they dislike, but some participants also believe that bitter drugs effectively cure diseases.

… Sometimes some of their drugs or their medicines are bitter; that is the only thing I will not appreciate at the herbal clinic… HMP1.

… For me, it is okay. For me. It is okay. It is okay. However, other people do complain about the taste and then the smell… It does not taste nice; it smells badly and all that… HMP16.

… Some people also say it is bitter and they cannot take it, but I will say to glorify God that it is not sweet things that cure disease; even bitter drugs are effective in treating diseases…HMP4.

Furthermore, a small number of participants in this study expressed dissatisfaction with the poor packaging of several herbal medicines. Instead, the participants thought that the final packaging of the drug should be attractive and well-designed rather than merely functional. They believe that if a medication is packaged attractively, the appearance of the drug will even entice individuals to purchase it.

...Any drug that we are to look at needs to look decent. People have to say, 'Oh, this is nice packaging.' The content must look presentable. The outside must attract you to buy something, so the packaging is also very key…HMP10.

… Sometimes they also talk about the packaging; they talk about the packaging a lot because I have a friend who was complaining about stress, and then I recommended our stress tea for him. Yes, he had the tea, but he complained about the packaging, so he was annoyed… HMP16.

In addition, a few participants expressed dissatisfaction with the large quantities of herbal medicines they were given at the herbal clinic. The participants stated that with conventional treatment, you are

offered only a small number of medications to consume. On the other hand, it appears that with herbal medicines, you are given large quantities of drugs, and it takes a long time for you to finish the entire course of treatment. Furthermore, because you are given so many of them, it can sometimes be challenging to transport and carry them from the hospital to the house.

… For me, the only challenge is that the medicine is many in terms of volume, and it takes a long time before you finish, unlike the orthodox medicine… HMP8.

… The challenge I had before was that they give you a lot of medicine for you to be okay… HMP10.

… When she goes to the pharmacy to talk about her drugs, they give her a lot of medications; she cannot carry them, but maybe on the Orthodox side, because of the packaging, they are in small sizes, so they are able to carry them, but here no…HMP16.

Furthermore, few participants were unhappy that herbal medicine clinics do not provide a twenty-four (24)-hour service and lack inpatient wards that admit patients. They were concerned that the herbal medicine clinic runs on an outpatient basis and felt that it was not the best.

… I think it is about time the herbal clinic also has wards so they can admit patients and treat them with herbal medicine… HMP3.

… I did not see any place that if someone comes and his or her condition is critical, they can detain him or her. I did not see any, and if there's any too, then I am not aware of it. I think if it were added, it would be better… HMP4.

…I have realised they close approximately 4:30–5:00pm, which is what I have noticed in most of the herbal clinics compared with the orthodox facilities, so if they can improve their services to 24 hours…HMP7.

Some participants raised the concern that medical herbalists and other herbal practitioners do not perform surgeries compared with their colleagues at the orthodox units. Additionally, with respect to service delivery, some believe that herbal medicines sold in cars have serious side effects, and some vendors cannot give a proper dosage.

… I once met a woman, and she was complaining that the herbal doctor does not operate. I have not seen the herbal doctor perform surgery, but I have witnessed effective treatments, so you might want to try that instead. HMP1.

… If you say you will be following adverts and those who sell in vans, I remember some time back I bought some in Kumasi; they said it does so many things, but when I took it, it was just God's grace that I was still alive. My condition was getting worse… HMP4.

… For instance, we started herbal medicine from our homes. Some of them, the measurement even to take, the quantity to take, they do not have it. They will tell you that you just have to boil the medicine and put a

cup on it, so at the end of the day, if you are not so careful, the dosage can also cause the illness to increase or whatever… HMP10.

Affordability

The issue of affordability was strongly addressed in this study. Most participants reported that the cost of the herbal medicines they procured at the two herbal medicine clinics was reasonable and cost-effective, juxtaposing that to the benefits they derived from their usage.

… Well, the cost, for me, is reasonable because the orthodox ones seem cheaper. If I put the drugs that I took and the antibiotics that they gave me together, they are cheaper than the herbs that I took here, but for me, the cost is reasonable; it is not too expensive… HMP8.

… If you come to a place like this, their herbal medicine is cheaper. You can afford it, so for me, that is a benefit because you go to other hospitals. The cost of drugs that we pay for as compared to when you are here, I can tell you that this is cheaper, far cheaper than going to the orthodox side… HMP10.

…The cost is not high. They have limited the cost so that everyone can come and buy it…HMP17

In reality, the services offered to them at herbal medicine clinics are covered by the National Health Insurance Scheme (NHIS), except for the cost of medications, which was mentioned by only a few participants in this study. Some participants stated that if their spouses had not assisted them in purchasing the medicines, it would have been more difficult to obtain the medications.

… I realised that the health insurance covers my consultation and other things, but as for the medicine, I pay for it… HMP2.

… That is one problem; the other time I listened to the discussion on Peace FM, they were asked about NHIS, and they said they do not use health insurance, but they are now coming to introduce health insurance… HMP7.

… My husband may support me; maybe that is why I can afford it for now. What if tomorrow I do not have that kind of support and I do not earn that much…HMP1.

Nonetheless, only a few study participants stated that herbal medications that are certified and proven to be beneficial are too expensive. Some have also complained that herbal medicines offered at private clinics are more expensive than those provided at government-regulated clinics.

… Compared to the orthodox, truly it is very expensive. I think it might be one of the reasons why people do not like purchasing herbal medicine. The certified one, the one that truly works, is expensive… HMP1.

… I will recommend that there's also this side of the issue. I do not know what I cannot say, but most of the private herbal places that I have gone to are very expensive… HMP5.

Availability

Few participants in this study expressed concern about the availability of certified herbal medicine clinics that are well regulated by regulatory bodies, stating that they are sometimes difficult to come by because of the influx of quack practitioners who own some of these clinics, which was a major source of concern to them.

… They are good, just that it is difficult to identify them. That is why I said that if the clinics are closer to us... Therefore, I think generally, they are good but difficult to identify… HMP10.

… I said, 'Fine.' I was even bringing my sister here; she was complaining about something I said, and I told her she should try here, but unfortunately, I live in Accra, so coming here, I need to leave very early, so that is why she could not come. HMP8.

Moreover, few study participants believed that the inability of the government of Ghana to establish herbal medicine clinics across the length and breadth of the country is worrying. Another concern is that even the existing herbal medicine clinics owned by the government are not being expanded and renovated. Thus, much of the focus is on orthodox facilities to the detriment of herbal medicine units.

…I believe that we should build decent herbal clinics in every region or district. In fact, it should get closer to the people… The fact of the matter is that the government should take that responsibility. In fact, when they are building hospitals, they should build orthodox medicines and herbal medicines in every district or every region… HMP10.

…Then, again, the government can come to the aid of the herbal centres by establishing many herbal facilities in the country instead of soliciting orthodox medications from other foreign countries… HMP17.

… It looks like we are not doing much to improve the place as compared to the orthodox side. When I came here, these structures were here, alright. I have seen a few things being done…. HMP19.

DISCUSSION

The results of the present study show that HM practitioners serve patients better and more closely than their medical facility counterparts operating under orthodox methods do. Several participants mentioned that HM practitioners spend considerable time evaluating their symptoms with in-depth questions, which they believe traditional healthcare providers fail to provide. The results of this study are consistent with those of other studies showing that healthcare providers in herbal medicine practices deliver increased emotional care and individualised support than do orthodox medical providers, leading to improved patient satisfaction and trust (Najibi et al., 2025).

The situation of continued reports about negative healthcare worker attitudes in public health facilities across Ghana clearly frames this finding of patient dissatisfaction due to provider behaviour, which has existed in official records for multiple years. The ongoing process of integrating HM services into

Ghana’s standard healthcare system appears to have educated HM practitioners about patients' needs, leading them to fulfil many expectations through greater empathy and responsiveness, resulting in increased patient trust (Ampomah et al., 2022; Im et al., 2024)

The participants reported that HM practitioners were respectful, receptive and approachable because of their calm and friendly manner, which created comfort alongside a satisfactory therapeutic setting. The orthodox healthcare system still grapples with client satisfaction issues because it consistently generates reports about disrespectful treatment alongside substandard provider–patient relationships (Iddrisu et al., 2023; Logiel et al., 2021). Patients prefer private or alternative healthcare options because they receive more respect and dignity in those environments. Because patients perceive better respect for their rights and preferences in HM services, they are increasingly utilising them. discovered similar results that demonstrate how negative treatment by providers in orthodox facilities drives patients toward HM services (Bekele et al., 2024; Mensah et al., 2024)

The participants displayed overall satisfaction with the choices they made during their care consultations with HM practitioners. The participants reported that HM practitioners communicated in familiar languages because it allowed them to better understand and participate in their care (Gumede et al., 2023; Tsele-Tebakang et al., 2023). Prior studies that indicate the importance of provider-patient language-level commonality to healthcare utilisation validate the findings here. This is especially relevant because orthodox medical professionals use English, which does not adequately serve all patient populations. Language familiarity strengthens the establishment of patient-centred care by building trust together with clarity and collaborative decision-making (Mudonhi & Nunu, 2022; G. Patel et al., 2023)

In health-related decision-making, patients, along with their relatives, sometimes participate, which defines participatory care as a fundamental element in determining HM preferences. A patient-centred approach enhances both communication and satisfaction levels, as existing studies affirm; however, modern consolidated healthcare systems often exclude their patients from decisions (Appiah et al., 2018; Costa-Font & Sato, 2025). The research outcomes show that quality care decisions take place with greater patient involvement in HM due to their practitioners' use of participatory care practices, which becomes what attracts members to HM for both starting and continuing healthcare treatment (Amole O.O., 2021; Kwame, 2021).

Affordability stood out as a dominant element within the participants' narratives. Many participants viewed HM together with related services as affordable because they considered them to be effective with sufficient dosage and high-quality treatment. The participants' beliefs align with findings indicating that both affordability and accessibility influence treatment choices in markets with economic constraints, where patients select healthcare options on the basis of their financial situations (Aboufaras et al., 2023; Lin et al., 2025; Owusu et al., 2025). The responses from the study participants strengthened the argument that cost-effectiveness governs Ghanaians’ health services utilisation.

The participants observed three positive aspects of the herbal medicine clinic system, although they were concerned about inadequate National Health Insurance Scheme (NHIS) support for herbal

medicine pricing. Patients need to pay themselves because the NHIS excludes services at public HM facilities (Appiah et al., 2018; Logiel et al., 2021; Owusu et al., 2025). This exclusion places a financial burden on patients, particularly in the context of generally low-income levels. The WHO's traditional medicine strategy, which supports traditional medicine integration into national health systems, stands as Ghana's commitment, to which the study identifies policy reform requirements for traditional medicine coverage under the NHIS. Policy reforms to integrate HM in the NHIS will lead to increased service accessibility and treatment use along with job creation for qualified medical herbalists (Ampomah et al., 2025; Thamizhoviya, 2025).

The participants' affordability perceptions were probably shaped by the fact that research took place in two public HM facilities where public institutions normally charge lower fees than private establishments do. According to the participants, herbal medicines bought from private settings cost more because of market-based price-setting techniques. An explanation for this observation follows rational choice theory, which explains that private providers seek financial gain by moving extra charges onto end-users (Gumede et al., 2023; Mensah et al., 2024; G. Patel et al., 2023).

On the basis of these results, participants recommended increased HM infrastructure funds from the government alongside the establishment of additional public HM centres that should include training medical herbalists. The distinction between government-operated facilities and private practitioners is that government operations serve a social contract led by the principle of public welfare before profits are generated. The implementation of the National Health Insurance Scheme with public herbal medicine service extensions could decrease monetary obstacles and increase nondiscriminatory healthcare availability (Amole., 2021; Appiah et al., 2018; Costa-Font & Sato, 2025). The participants saw herbal medicine as affordable because of its public sector backing; however, this affordability does not apply universally. Government regulation assumes a vital role in controlling pricing and maintaining medical service availability (Kwame, 2021; Owusu et al., 2025).

Despite its availability, several significant barriers exist alongside geographical accessibility for participants. The participants expressed frustration about the limited public herbal medicine centres in their districts, which forced them to travel extended distances to obtain medical services in the Eastern Region of Ghana. The limited availability of public facilities has led patients to use unregulated practitioners and herbal vendors whose services pose a greater risk for unsafe healthcare practices. The results support previous research showing that HM use increases when it is available at rural locations where orthodox health services are not easily accessible (Aboufaras et al., 2023; Adeniyi et al., 2021).

The participants also reported that it was challenging to obtain herbal medicine that was certified or registered following their prescriptions because of the limited access of controlled facilities. Because regulated HM facilities are scarce, participants must visit the Centre for Plant Medicine Research (CPMR), yet their treatment expenses increase because of this journey (Iddrisu et al., 2023; Logiel et al., 2021). The solution for these problems would be to establish more registered public HM facilities throughout the country. Because herbal medicines are becoming increasingly accepted among the

population and consumers turn to these remedies, especially during the harmattan season, there is an immediate need for HM services to become accessible across the entire nation through integration and decentralisation (Ampomah et al., 2022; Thamizhoviya, 2025).

Conclusion

This research examined the health system factors that affect medicinal herb utilisation at chosen herbal medicine clinics within Ghana's Eastern Region. Using the theory of care seeking behaviour, this study revealed that patients use herbal medicine through psychosocial elements that work alongside enabling health system factors instead of individual choices. The research findings show that herbal medicine use remains deeply connected with how health services in Ghana are organised, how they are delivered and how accessible they are, thus confirming the role of systemic elements in health-seeking patterns.

According to the study participants, medical herbalists showed a positive attitude towards patients, and this attitude played an important role in directing patients towards herbal medicine. Herbal practitioners consistently showed patients respect while effectively communicating and providing emotional support together with sufficient time, which resulted in better trust and patient satisfaction. The research findings confirm the findings of current studies, which show that patients benefit from improved satisfaction along with increased service use when presented with respect to provider–patient relationships within traditional or integrative healthcare systems. The ability of herbal practitioners to speak local dialects and to involve family in care activated communal participation and boosted patients' trust in herbal medicine services.

The way services are delivered has proven to be an important factor affecting patients' choice of herbal medicine. Those who used herbal clinics appreciated efficiency along with shortened waiting times and individualised treatment services that were superior to those offered by regular clinics. However, patients expressed worries about the short availability of operation times together with the unavailability of inpatient units and emergency services and the absence of surgical abilities at herbal clinics. These service gaps reveal continuing infrastructural deficiencies in Ghana's integrated health system and match earlier research from Ghana and sub-Saharan Africa, showing incomplete integration of traditional medicine services into health institutions.

Affordability was reported as a key enabler of herbal medicine consumption. A majority of participants who sourced their herbal medicines from public clinics believed that these medicines were affordable and presented good value when measured against their benefits. The absence of NHIS coverage for herbal medicines presents a critical monetary hurdle for needy patients. Recent studies from Ghana also revealed that the absence of herbal medicine insurance coverage leads to both unequal access and financial constraints among traditional medicine users.

Patient attendance at certified herbal medicine facilities depends largely on both their availability and their accessibility. The lack of publicly regulated herbal medicine clinics frustrated patients so much that they had to either cover long distances or choose unregulated practitioners. Recent studies consider the

proliferation of quack herbal practitioners to be a hazard to both patient safety and consumer trust in herbal medicine. Recent research has called for enhanced regulatory guidelines along with increased government-owned herbal infrastructure and stronger enforcement mechanisms to safeguard consumers.

The data from this research demonstrate that patients in Ghana choose to use herbal medicine while considering their cultural background but also because of healthcare system factors such as provider demeanour, organisational structure, service affordability and accessibility. To achieve effective integration of herbal medicine within Ghana's healthcare system, two main issues, NHIS exclusion and scarce facility expansion, as well as regulatory strength, need to be resolved. When strengthened, these system-level elements could lead to better equitable access and enhanced patient safety as well as significant progress toward universal health coverage and Sustainable Development Goals 3 and 10 in Ghana.

Declarations

DATA AVAILABILITY STATEMENT

All data generated or analysed during this study are included in this published article.

AUTHORS CONTRIBUTIONS

Clement Katey Kabutey: Conceptualisation; data curation; formal analysis; methodology; funding; writing original draft; writing review and editing

Gloria Achempim-Ansong: Conceptualisation, formal analysis, methodology, supervision, validation, writing, review, and editing.

Hannah Okyere-Boateng: Writing review & editing; supervision; validation; conceptualisation; methodology.

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This research did not receive funding from any governmental or non-governmental sources.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The Ghana Health Service Ethics Review Committee (GHS-ERC) approved this study by reviewing it (Approval Reference: GHS-ERC 038/12/20; Date of Approval: 29th April 2021). The Researchers conducted the study following the ethical guidelines and Ghana Health Service Ethics Review Committee regulations and Ghana's national guidelines protecting research participants.

All procedures involving human participants were performed in accordance with the ethical standards of the Ghana Health Service Ethics Review Committee, Ghana's national guidelines for the protection of

research participants, and the ethical principles of the Declaration of Helsinki (2013 revision) as adopted by the World Medical Association. Investigators obtained written informed consent from all study participants before their participation. Study participants were made aware that participation was voluntary, withdrawal was allowed at any stage without consequences, and their data confidentiality would be maintained.

CONSENT FOR PUBLICATION

Not applicable. This study does not contain any individual person's data in any form (including individual details, images, or videos).

COMPETING INTERESTS

The authors declare no competing interests in any aspect of this study.

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Figures

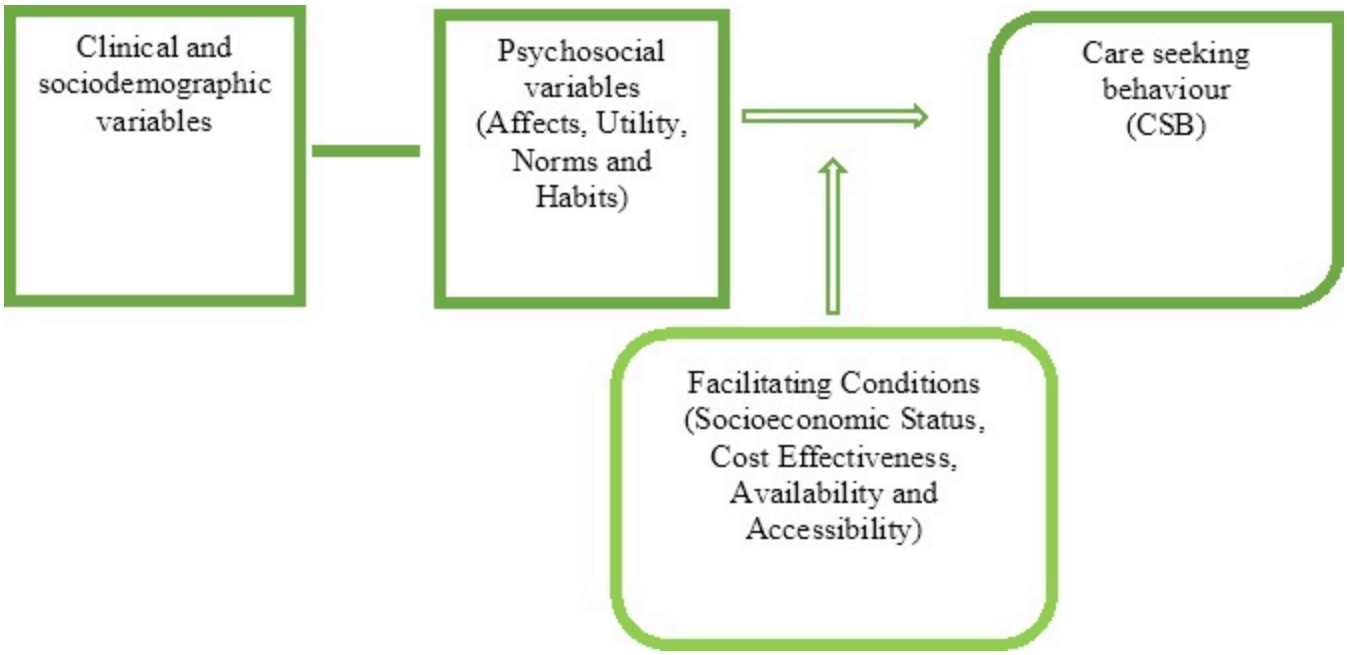


Figure 1

Theory of care-seeking behaviour