

## KNOWLEDGE AND PRACTICE OF TRADITIONAL MEDICINE USAGE AMONG STUDENTS OF COLLEGE OF EDUCATION, ILORIN KWARA STATE, NIGERIA

BY

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### Abstract

This study assessed knowledge and practices regarding traditional medicine (TM) among Kwara State College of Education students. Utilizing a purposive sampling technique, 250 participants were selected. The results revealed an 80% prevalence of TM use, attributed to its easy accessibility, low cost, and cultural acceptability. Participants demonstrated high knowledge and positive attitudes toward TM, employing it to treat various health challenges. Notably, sociodemographic factors significantly influenced knowledge and practices ( $p < 0.05$ ). To address potential risks and optimize benefits, the study recommends restricted inquiries into conventional drug safety and quality, clinical trials for TM, documentation of TM practices, and government support for TM research. The findings underscore the importance of understanding TM use among students to inform health education and policy. Overall, this study concludes that TM use is high among College of Education students, likely due to sociocultural acceptability, accessibility, and affordability, highlighting the need for evidence-based interventions to prevent misuse or inadequate utilization of TM.

**Keywords:** traditional medicine, knowledge, practices, students, sociodemographic factors, health education, policy

### Introduction

Traditional medicine has played a significant role in global healthcare systems for centuries and continues to be a vital component in meeting health needs today. Traditional medicine encompasses a variety of practices that differ across cultures, but generally includes the use of herbal remedies, spiritual practices, and manual techniques for the treatment of illnesses. In developing countries like Nigeria, traditional medicine is often relied upon due to its accessibility, affordability, and cultural significance (WHO, 2013). In many African communities, traditional medicine is deeply rooted in the cultural heritage and spiritual beliefs of the people. Traditional healers, often viewed as custodians of ancient knowledge, utilize a holistic approach that encompasses not just the physical aspects of healing but also the emotional and spiritual dimensions of health (Hossain & Rahman, 2019). This perspective aligns with the African belief system, which emphasizes the interconnectedness of the body, mind, and spirit. As a result, traditional healers are often sought after for a range of health issues, from minor ailments to chronic diseases (Adeyemi & Ogunlade, 2018).

Herbal remedies, a major component of traditional medicine, are derived from plant materials and have been used for treating diseases long before the advent of modern pharmaceutical drugs. Even today, many pharmaceutical products are synthesized from compounds originally found in plants (Mackey & Liang, 2013). For example, the active ingredient in aspirin was derived from willow bark, which has been used for centuries in traditional medicine. The World Health Organization (WHO) reports that up to 80% of the population in developing countries depend on traditional medicine for their primary healthcare needs (WHO, 2013). In Nigeria, traditional medicine remains popular, especially in rural areas where access to conventional healthcare services may be limited. According to a study by Olowokudejo et al. (2008), traditional medicine is often the first point of contact for many individuals seeking medical attention. The use of herbal medicine is deeply embedded in the cultural practices of the people and is considered a safe and effective alternative to modern healthcare. This reliance on traditional practices is often driven by the perception of effectiveness, cultural beliefs, and a lack of access to modern healthcare facilities.

However, despite its widespread use, there are concerns regarding the safety and regulation of traditional medicine. The potential risks associated with traditional medicine include incorrect dosages, contamination with toxic substances, and adverse reactions when combined with conventional medicines (Ezeome & Anarado, 2007; Afolaranmi et al., 2022). The lack of regulation in the production and sale of traditional remedies poses significant health risks to consumers, especially when these remedies are used alongside conventional treatments without proper guidance from healthcare professionals.

This study focuses on the knowledge and practice of traditional medicine usage among students at the Kwara State College of Education, Ilorin. College students are a unique population as they often face various health challenges, including stress, mental health issues, and chronic illnesses. Understanding their knowledge and attitudes toward traditional medicine can provide insights into their health-seeking behaviors. This demographic is crucial to study because students often serve as conduits for health information and practices within their families and communities. As they transition into adulthood, their perceptions of health and medicine can influence the choices they make and the attitudes they foster in their future roles as educators and community leaders. This study aims to assess the level of awareness and practice of traditional medicine among this population and to explore the factors that influence their usage.

### **Objectives of the Study**

1. To evaluate the level of knowledge of traditional medicine usage among students at Kwara State College of Education.
2. To examine the students' practice and usage of traditional medicine.
3. To assess the socio-demographic factors that influence the students' knowledge and practice of traditional medicine.

### **Research Questions**

1. What is the level of knowledge of traditional medicine usage among students at Kwara State College of Education?
2. To what extent do students practice traditional medicine for health purposes?
3. What factors influence the knowledge and practice of traditional medicine among students?

### **Research Hypotheses**

H1: There is a significant relationship between sociodemographic factors and the students' knowledge of traditional medicine.

H0: There is no significant relationship between sociodemographic factors and the students' practice of traditional medicine.

### **Methodology**

#### **Study Design**

This study employed a descriptive cross-sectional design to assess the knowledge and practice of traditional medicine among students of Kwara State College of Education, Ilorin. The design was chosen to obtain data from a large number of students at a single point in time.

#### **Study Population**

The study population consisted of all students enrolled at Kwara State College of Education, Ilorin. To be eligible for the study, participants had to meet specific criteria: they had to be at least 18 years old, enrolled as students at the college, and have attended the school for a minimum of six months.

### Sample size determination

The Fisher's formula was used to determine the appropriate sample size.  
equation:

$$n = Z^2(1-p) / d^2 \text{ if the target population is more than 10,000,}$$

Where,

n = the intended estimated sample size.

The required level of confidence is represented by

Z = which is the conventional normal value (1.96).

d = precision error (5%) which is equivalent to 0.05

p = population proportion. 80% (Wassie, et. al., 2015)

$$\begin{aligned} &= 1.962 \times 0.8 (1-0.8) / 0.052 \\ &= 3.84 \times 0.8 (0.2) / 0.0025 \\ &= 0.614 / 0.0025 \\ &= 245.6. \end{aligned}$$

So therefore, the estimated sample size is 246 but the sample size was approximated to 250.

### Data Collection Instruments

Data were collected using a structured, self-administered questionnaire, which included sections on demographics, knowledge, and practice of traditional medicine. The questionnaire was pre-tested among students in a different institution to ensure its reliability and validity.

### Data Analysis

Data were analyzed using SPSS version 23. Descriptive statistics, such as frequencies and percentages, were used to summarize the data. Chi-square tests were employed to determine relationships between sociodemographic factors and traditional medicine use. Hypotheses were tested at a significance level of 0.05.

### Results

*Table 1*  
*Gender of the respondents*

	Frequency n = 250	Percent	Valid Percent	Cumulative Percent
Valid Male	116	46.4	46.4	46.4
Female	134	53.6	53.6	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 1 shows that majority of the respondents representing 53.6% were female while 46.4% were male.

**Table 2**  
*Age of respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-24	152	60.8	60.8	60.8
25 - 34 years	84	33.6	33.6	94.4
35 years above	14	5.6	5.6	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 2 shows that majority 152 (60.8%) of the respondents were between the age of 18 – 24 years while 84 respondents representing 33.6% were between 25 – 34 years, 14 (5.6%) were 35 years and above.

**Table 3**  
*Marital Status of respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	168	67.2	67.2	67.2
Married	82	32.8	32.8	100.0
Divorced	0	0.0	0.0	
Widowed	0	0.0	0.0	
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 3 reveals that majority 168 (67.2%) of the respondents were single, while 32.8% of the respondents were married, none of the respondents were divorced nor widowed.

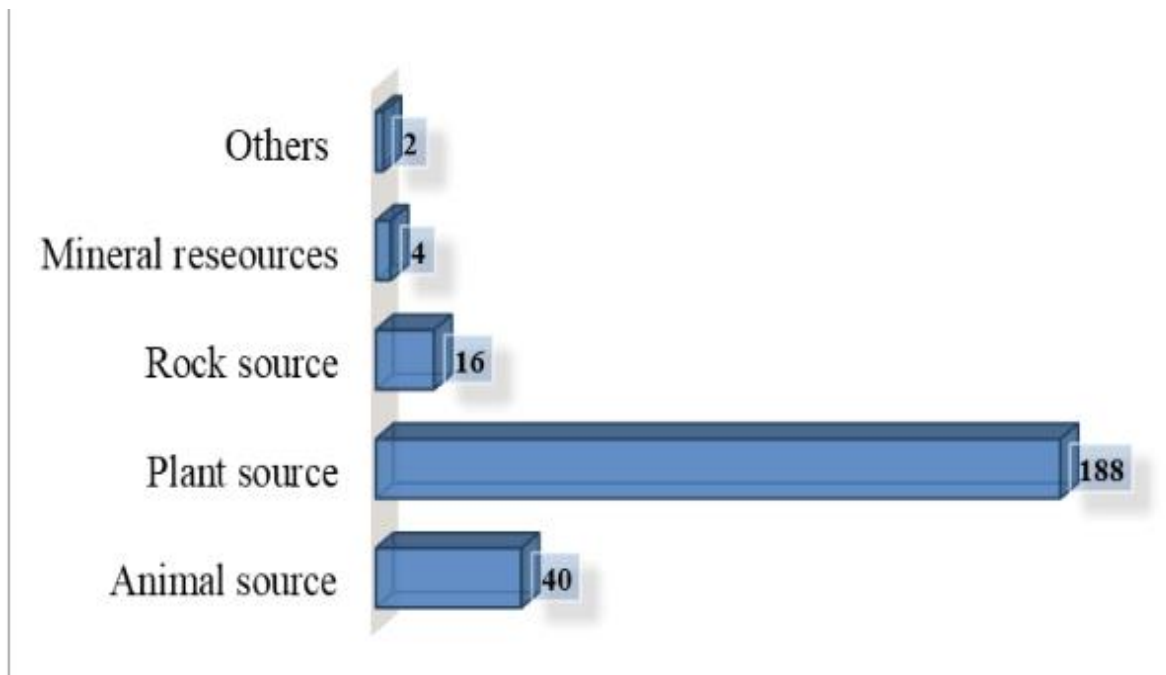
**Table 4**  
*Respondents knowledge and awareness about TM*

Variables	Options	N=250	%=100%
Have you ever heard or aware of traditional medicine?	Yes	210	84.0
	No	40	16.0
Have you ever used traditional medicine for treatment of certain health challenge before?	Yes	196	78.4
	No	54	21.4
Are you aware that there are negative health effects surrounding the use of traditional medicine?	Yes	108	43.2
	No	142	56.8
Is traditional medicine safer than conventional drugs because they are made from natural ingredients?	Yes	178	71.2
	No	72	28.8
Have you ever visited modern healthcare after visiting TM practitioners?	Yes	154	61.6
	No	96	38.4
Health education about risk & benefit of TM is important?	Yes	232	92.8
	No	18	7.2
TM are effective & safer than modern health service?	Yes	140	56.0
	No	110	44.0

Table 4 revealed that majority of the respondents (210) representing 84% have knowledge about what traditional medicine means while 40 (16%) declared to have no knowledge about TM. 196 (78.4%) claimed to have ever use

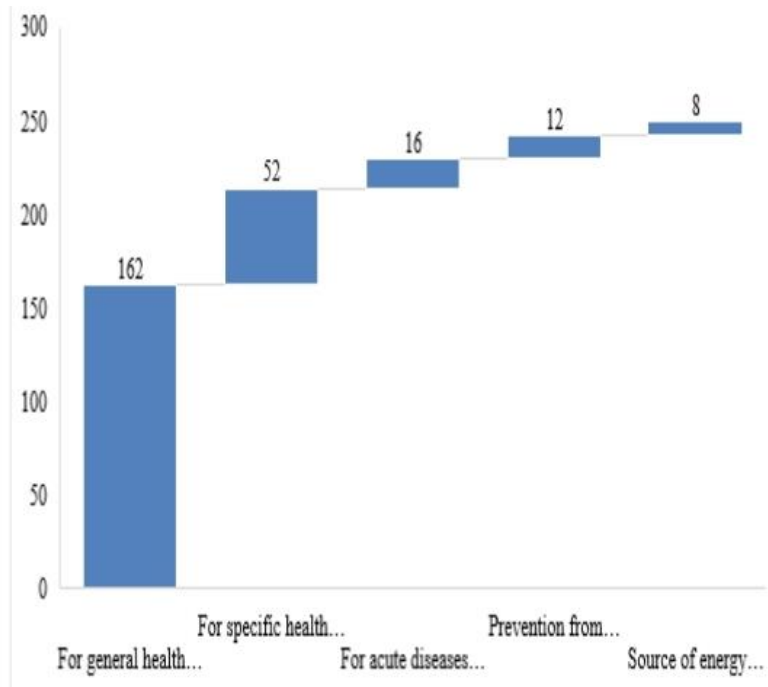
traditional medicine for treatment of certain health challenge while 54 (21.4%) claimed not to have ever used any TM products. Majority of the respondents (142) were not aware of any negative health effects which may arise from TM usage while 108 (43.2%) claimed to have knowledge of some negative effects caused by the usage of TM. 178 (71.2%) of the respondents believes that TM is safer than conventional drugs due to their natural source while 72 (28.8%) attested that TM is not safer compared to conventional drugs.

Majority of the respondents (154) representing 61.6% declared that they do visit modern healthcare after visiting TM practitioner due to some adverse effect of TM such as non-improvement from the infirmity and peer influence while 38.4% said they have never witnessed any adverse effect after visiting TM practitioner. 232 (92.8%) were aware that health education about risk and benefits of TM is important. Majority (140) of the respondents representing 56% believes that TM are effective & safer than modern health service while 110 (44%) claimed that TM are not effective or safer than modern health service.



*Figure 1: sources of TM known by respondents*

Figure 1 revealed the sources of traditional medicine known to the respondents. Majority of the respondents (188) were aware that traditional medicine (TM) can be gotten from plant while 40 respondents knew of animal source; 16 (6.4%) knew of rock source.



*Figure 2: Respondents response on reasons why people use traditional medicine*

Figure 2 reveals that most of the respondents representing 64.8% knew that people use traditional herb for general health treatment due to their believe in it while 52 (20.8%) said its for the treatment of specific health challenge such as fever, malaria, infections, diabetes, hepatitis, high blood pressure, constipation, etc. 16 (6.4%) believes that traditional medicines are taken to cure acute diseases; 12 (4.8%) believes that some people take herb to prevent themselves from sudden health malfunctioning and 8 (3.2%) said traditional medicine usage is effective for energy generation.

### **Respondent Attitude and Belief towards Traditional Medicine Usage**

A cut-off score of 2.00 was used as the baseline for determining participants' responses on their respective attitude and belief towards the adoption and usage of traditional medicine since the questionnaire items were structured in a five-response-type. Therefore, variable found with mean standard deviation (MSD) scores equals or above 2.00 were remarked 'Satisfied' while variables with MSD below 2.00 were remarked otherwise.

**Table 5**

*Mean Standard Deviation (MSD) Analysis showing respondent's attitude and belief on traditional medicine usage and adoption.*

<b>SN</b>	<b>Variables</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>	<b>MSD</b>	<b>REMK</b>
<b>1</b>	Traditional medicine involving natural plant formulas are healthier than drugs given by medical experts which are made of chemicals	82	64	50	38	16	<b>2.02</b>	<b>Satisfied</b>
<b>2</b>	There are fewer side effects when taking traditional or naturally-made medicines	58	98	48	28	18	1.99	Not Satisfied
<b>3</b>	The use of conventional and traditional drugs at the same time can aid quick recovery and best therapeutic outcome	58	80	38	52	22	1.97	Not Satisfied
<b>4</b>	Traditional medicines build up body defense and promote self-healing	72	94	38	22	24	<b>2.02</b>	<b>Satisfied</b>
<b>5</b>	Traditional medicine is more reliable in treating all illnesses than pharmaceutical drugs	62	54	60	50	24	1.96	Not Satisfied
<b>6</b>	Some people prefer using traditional medicine because it is affordable and accessible than conventional drugs	106	68	38	18	20	<b>2.07</b>	<b>Satisfied</b>
<b>7</b>	With the aid of traditional medicines, the body can heal without using any reference or pharmacological drugs	76	72	46	36	20	<b>2.01</b>	<b>Satisfied</b>
<b>8</b>	The use of traditional medicine should be recommended after been recovered from the health challenge that prompted its usage	48	100	54	38	10	1.97	Not Satisfied
<b>9</b>	Traditional medicine is advisable to be used if conventional means of treatment has shown no positive effect	70	92	42	36	10	<b>2.01</b>	<b>Satisfied</b>
<b>10</b>	Generally, the use of traditional medicine is good for human's treatment and wellness	82	90	40	26	12	<b>2.04</b>	<b>Satisfied</b>

As revealed in the table above, 6 out of the 10 variables have a mean standard deviation (MSD) score of  $\geq 2.00$ . Respondents believe that – traditional medicine involving natural plant formulas are healthier than drugs given by medical experts which are made of chemicals; – traditional medicines build up body defense and promote self-healing; – some people prefer using traditional medicine because it is affordable and accessible than conventional drugs; – with the aid of traditional medicines, the body can heal without using any reference or pharmacological drugs; – traditional medicine is advisable to be used if conventional means of treatment has shown no positive effect and that – generally, the use of traditional medicine is good for human’s treatment and wellness.

**Table 6**  
*Respondents practice towards TM usage and adoption*

<b>Variables</b>	<b>Options</b>	<b>N=250</b>	<b>%=100%</b>
Is it the role of health practitioners such as nurses, doctors and pharmacist to report suspected adverse complications caused through the use of traditional medicine	Yes	218	87.2
	No	32	12.8
The treatment outcome may be affected when patient took herb or traditionally-means remedy before going to healthcare center for proper treatment	Yes	184	73.6
	No	66	26.4
The more people get to know more about traditional medicine, the more they adopt its usage	Yes	196	78.4
	No	54	21.6
Do you have a knowledge on any means of traditional medicine for the treatment of some specific ailments?	Yes	170	68.0
	No	80	32.0
Ever since you started using traditional medicines, have you or has anyone close to you ever experience any side effect after the usage?	Yes	118	47.2
	No	132	52.8
The use of traditional medicine will be more frequent if there are adoptable regulations from regulatory bodies	Yes	212	84.8
	No	38	15.2
Do you prefer taking traditional or herbal medicine first whenever you are sick?	<b>Yes</b>	<b>170</b>	<b>68.0</b>
	No	80	32.0
Do you think people use traditional medicine because they belief in its effectiveness?	Yes	214	85.6
	No	36	14.4
Health education on risks associated with the usage of traditional drugs is necessary for awareness creation	Yes	224	89.6
	No	26	10.4
Are you in agreement that traditional medicine be regulated and recommended by health officials?	Yes	190	76.0
	No	60	24.0

Table 6 shows that majority of the respondent believes that it should be the role of health practitioners to report suspected adverse complications that occurs after the usage of TM so as to reduce the length of awareness and reduce its negative side effects. 184 (73.6%) of the respondents preached that treatment of a particular illness/ailment can be affected if the patient has already taken traditionally – made products before referred to the healthcare center. Majority of the respondents representing 78.4% confessed that the more people get to know about TM, the more people will keep adopting its usage meanwhile 68% of the total respondents confirmed that they knew some kind of traditional herb/medicine that may be use to cure some specific health challenges.



132 (52.8%) of the respondents claimed that ever since they have been using natural/traditional medicine, they or any close relative never experienced any side effect arose from its usage while 118 (47.2%) said they or any close relative have experienced an adverse side effect after using traditional medicine. Most of the respondents representing 84.8% opined that the use of traditional medicine will be more frequent if there are adoptable regulations addressed by regulatory bodies.

Majority of the respondents representing 68% out of the total respondents preferred to use herbal or traditional medicines first whenever they are unwell and 214 (85.6%) believes that people use traditional medicine because of the belief they have in its effectiveness. It is also in the respondent's submission that health education should be a routine assessment to aid the spreadness of the risk-associated to the use of traditional medicine and also in support that traditional medicine be regulated and recommended by health officials.

**Table 7**

*Hypothesis showing the relationship between sociodemographic information and knowledge of the respondents*

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	859.026	1	859.026	2.494	.165
Residual	2066.974	6	344.496		
Total	2926.000	7			

a. Dependent Variable: Knowledge & Practice

b. Predictors: (Constant), Sociodemographic data

Hypothesis table shown above indicates that the statistical F-value is greater than the alpha value computed at 95% confidence level ( $\alpha = 0.05$ ). It implies that sociodemographic information has significant relationship with the level of respondents' knowledge and practices on traditional medicine usage and adoption.

**Discussion**

The study investigated the knowledge and practices of traditional medicine (TM) among students at Kwara State College of Education. The sociodemographic data revealed that 53.6% of respondents were female, while 46.4% were male, indicating that females are more likely to use herbal medicines. The majority of respondents (60.8%) were between 18-24 years old, single (67.2%), and students (57.6%). Most respondents (89.6%) were from Yoruba origin, and 87.2% practiced Islam. Regarding knowledge and awareness of TM, the study found that 80% of respondents used TM, which is consistent with previous studies (Mohsen & Masoumeh, 2012; Temitayo et al., 2021). However, 16% of respondents were unaware of what TM means. A significant proportion (78.4%) had used TM for health challenges, and 71.2% believed TM is safer than conventional drugs due to its natural source.

The study also examined attitudes and beliefs towards TM. Respondents had a high belief in TM's effectiveness and safety, with six variables having a mean standard deviation (MSD) score  $\geq 2.00$ . Most respondents (61.6%) visited modern healthcare after TM usage, primarily due to adverse effects or peer influence. In terms of practice, 73.6% of respondents believed health practitioners should report suspected adverse complications arising from TM usage. A significant proportion (78.4%) believed increased awareness would increase TM adoption, and 68% preferred using herbal/traditional medicines first. Most respondents (85.6%) believed in TM's effectiveness.

The hypothesis testing revealed a significant relationship between sociodemographic information and knowledge and practices on TM usage and adoption (F-value  $> \alpha = 0.05$ ). The study concludes that sociodemographic factors influence knowledge and practices, highlighting the need for health education and regulation of TM. The findings have implications for increased awareness and education on TM benefits and risks, regulation of TM by health officials, and integration of TM into conventional healthcare. However, the study's limitations, including its focus on a specific population and self-reported data, should be considered. Overall, the study contributes to the understanding

of TM knowledge and practices among students in Nigeria, emphasizing the importance of addressing sociodemographic factors and promoting evidence-based TM practices.

### **Conclusion**

This study revealed a high prevalence of traditional medicine (TM) usage, with 80% of respondents utilizing TM in the study area. This widespread acceptance can be attributed to TM's easy accessibility, affordability, and cultural acceptability compared to conventional medicine and facilities. The respondents demonstrated a high level of knowledge about TM, with the majority using it to treat specific health challenges such as fever, malaria, infections, diabetes, hepatitis, high blood pressure, and constipation. The observed high response in knowledge and acceptance can be linked to increased media advertisements promoting TM as an effective, affordable, and risk-free treatment for various illnesses. Respondents primarily used traditional herbs for general health treatment due to their belief in its efficacy and for treating specific health conditions. Some also believed TM cured acute diseases and generated energy.

The study showed that respondents had a positive attitude towards TM usage and adoption. TM's accessibility and affordability make it particularly appealing in low-income nations. However, globalization poses concerns about the erosion of traditional ways of life and societies, including the loss of cultural knowledge and hesitation among younger community members to preserve conventional practices. Notably, the study found a significant relationship between sociodemographic background and respondents' knowledge and practices regarding TM usage and adoption ( $p < 0.05$ ). This suggests that sociodemographic factors significantly influence respondents' understanding and utilization of TM.

### **Recommendations**

Based on the findings of this study, the following recommendations are made to improve traditional medicine usage and adoption:

#### **Community-Based Engagement**

1. Encourage collaboration between conventional and traditional medicine practitioners to improve health outcomes in the community.
2. Provide access to information on traditional medicine's safety, efficacy, and quality.

#### **Government Intervention**

1. Incorporate traditional medicine research and development into government medical research institutions.
2. Establish national multi-disciplinary and multi-sectoral components to support traditional medicine.
3. Increase support for research into traditional medicine and its practices.

#### **Individual-Related Intervention**

1. Encourage individuals to consult trained and certified traditional medicine practitioners.
2. Promote affordable and effective treatment for common infections through traditional medicine.

#### **Additional Recommendations**

1. Recognize the role of traditional medicine professionals and foster collaboration with community health workers.
2. Ensure documentation of traditional medicine practices and restricted inquiries about conventional drugs.
3. Provide reasonable and effective treatment for common infections in low-income nations.

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