Assessment of Rural Farmers’ Perception and Utilization of Traditional Medicines in Imo Sstate, Nigeria

**Abstract**

The study assessed rural farmers’ perception and utilization of traditional medicines in Imo state, Nigeria. Multistage sampling procedure was used. Randomly, 2 zones were sampled; 2 blocks chosen from each of the sampled zone; and 2 circles selected from each of the chosen block. A total of 96 respondents were randomly selected. However, only responses from 90 respondents were found useful for the data analysis. Respondents’ age and household size were measured at interval level while educational level was measured at ordinal level. Respondents’ perception to traditional medicine was measured using a 4 point Likert-typed scale and categorized as favourable (≥mean) and unfavourable (<mean). Use of traditional medicine was rated as frequently used(4), moderately used(3), rarely used(2), and not used(1) and ranked using mean criterion. Data were collected with well-structured questionnaire and analyzed with percentage, mean, and PPMC. Average age and household size were 51.28±10.06 and 8.00±3.00 respectively, while 40.0% had secondary education. Majority (70.0%) had favourable perception towards traditional medicine. Treatment of rheumatism and digestive issue with uziza (*x̄*=3.74), treatment of digestive problem with scent leaf (*x̄*=3.57), and treatment of rheumatism with ekpuaku (*x̄*=3.56) ranked most frequently utilized traditional medicine. Significant relationship existed between farmers’ perception and utilization of traditional medicine (r=0.427; p=0.000). The study concludes that despite varying educational background, majority of the respondents had favourable perception and frequent usage of traditional medicines. Extension professionals should be mandated by government to educate rural people on proper way of using traditional remedies so as to avoid their harmful effect.

**Keywords:** Traditional medicine, utilization, and rural farmers

**1.0 Introduction**

Traditional medicine is among the oldest methods used to treat diseases in world. Before the advent of English medicine, there had existed the traditional medicine which remain in use till today in different parts of the globe. Precisely, Christian (2021) described traditional medicine as the entirety of knowledge, practices and skills based on the beliefs, experiences, and theories peculiar to different cultures that are used to maintain health, as well as to diagnose, prevent, improve or treat physical and mental illnesses. Ramavhoya and Nesengani (2022) submitted that reformation of traditional medicine has helped in the treatment of different diseases. It is noteworthy that traditional medicine is an essential component of health management options in diverse parts of the world, especially the low and middle-income countries of Africa, Asia including Europe and America (Ampomah *et al*., 2020; Ikhoyameh *et al*., 2024).

The usage of medicinal herbs is a critical part of traditional medicine. Importantly, Africa and Asia are endowed greatly with forest where different species of medicinal plants grow and have been utilized in the treatment of ailments (Ani *et al*., 2024). Descriptively, herbs, herbal materials, herbal preparations, and complete herbal products with active plant components, additional plant materials, or mixtures are considered as traditional medicines (Ani *et al*., 2024). They can be found as liquids, powders, capsules, tablets, ointments, or capsules. Some are produced in advance while others are only made when necessary and are used to not only treat but also maintain or improve health (Ani *et al*., 2024). Owing to the general ease of access, social and cultural factors, herbal medicine used for treating disease has thus become the standard and has frequently been patronized by people especially those in rural communities.

Farmers live closer to nature as opined by Tlemcani *et al*. (2023), hence making them understand the relevance of the ecosystem better than people in other professions. Farmers are like botanists. This implies that farmers grow plants, know them and make use of them compared to any other group of people (Tlemcani *et al*., 2023). In Africa especially in most parts of Nigeria, crop farming is indispensable and many of the crops being cultivated are highly medicinal (Nkeme et al., 2021). Majority of these plants according to Ani *et al*. (2024) are utilized in the treatment of different types of disease.

The use of traditional medicines to treat diseases is not a hidden practice to many people living in Africa. Most negative perceptions about the use of traditional medicines to treat disease come from the taste. Most people express that they will not take traditional medicines because they are bitter, while others maintain that herbal medicines are good but cannot be taken because they induce different side effects such as passage of stool, restlessness, headache and hunger (Ikhoyameh *et al*., 2024). More so, they may produce other negative effects such as allergic reactions, rashes, asthma, dizziness, agitation, dry mouth, seizures, fatigue, tachycardia, nausea, vomiting, and diarrhea ([Niyomnaitham](https://www.researchgate.net/scientific-contributions/Suvimol-Niyomnaitham-2250271509?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19) *et al*., 2023). These among others contribute to negative perceptions of traditional medicines. In view of the foregoing, the study is set out to assess rural farmers’ perception and utilization of traditional medicines in Imo state, Nigeria. The following specific objectives were assessed:

1. describe the socioeconomic characteristics of the rural farmers;
2. determine rural farmers’ perception to traditional medicines; and
3. ascertain the use of traditional medicine among rural farmers.

**1. 1 Hypothesis**

There is no significant relationship between rural farmers’ perception and use of traditional medicine.

**2.0 Material and methods**

The study was carried out in Imo State, Nigeria. The state lies within Latitude 40451N and 70151N, and longitude 60501E and 70251E, and covers an area of 5,530km2 (2,140 sq mi) (National Population Commission, 2013). Imo state is made up of three agricultural zones (Owerri, Okigwe, and Orlu zones) and twenty-seven blocks. Mean annual temperature above 200C creates an annual relative humidity of 75%, with humidity reaching 90% in the rainy season.

Multistage sampling procedure was used to select sample for the study. First, simple random sampling was employed to select two agricultural zones in Imo State. The selected zones were Orlu and Owerri. In the second stage, simple random selection was used to choose two agricultural blocks from each of the selected zones. The selected blocks were Ideato south, Isu (Orlu Zone), Aboh Mbaise and Owerri west (Owerri zone). In the third stage, simple random sampling was used to select two agricultural circles from each of the selected blocks. The selected circles were Ugbelle and Ogboko (Ideato South), Ekwe and Uburu (Isu), Nguru and Uvuru (Aboh Mbaise), Umuguma and Ihiagwa (Owerri west). In the last stage, simple random sampling was used to select twelve respondents from each of the selected agricultural circle. This gives a total of Ninety six (96) respondents. However, only responses from ninety (90) respondents were found useful for the data analysis. Hence the sample size for the study was Ninety (90). Primary data were collected using a well-structured questionnaire and administered to the farmers through trained enumerators. Rural farmers’ age and household size were measured at interval level, marital status was measured at nominal level, while educational attainment was measured at ordinal level.

Respondents’ perception towards traditional medicine was measured by providing fourteen perception statements on the traditional medicine and their responses were captured using 4 point Likert-type scale of strongly agree, agree, disagree and strongly disagree with a scores of 4,3,2,1 respectively for positively worded statements and the reverse order of scoring for the negatively worded statements. The minimum score was 14 and the maximum was 56. The mean score was computed and used to categorize respondents as having favourable perception (scores equal to and above mean) or unfavourable perception (below mean).

A list of 12 traditional medicines was presented to the farmers and asked to rate the medicines in terms of their utilization on a 4 point scale of frequently used scored 4, moderately used scored 3, rarely used scored 2, and not used scored 1. The traditional medicine with the highest weighted means was considered the most frequently used and ranked in decreasing order.

The data were analyzed using Statistical Package for Social Science (SPSS) and the results were organized into percentages, means, standard deviations and Pearson Product Moment Correlation (PPMC). 0803674396

**3.0 Results and discussion**

**3. 1 Socioeconomic characteristics of the rural farmers**

The finding in Table 1 indicates that the age of respondents ranges between 24 to 70 years with an average age of 51.28±10.06. This implies that most farmers were mature adults who might have been exposed to traditional knowledge over time. Older adults are more likely to trust and use traditional medicine, given their deeper cultural attachment and long-term exposure to traditional practices. Their age also implies accumulated experiential knowledge, often passed down generationally, making them more inclined to use and promote traditional remedies. This finding is similar to that of Uwandu *et al*. (2018) who found that the average age of farming household heads in Imo state was 48.00 years.

Result on respondents’ educational level reveals that 40.0% had secondary education, 31.1% had tertiary education, while 20.0% had no formal education, and 8.9% had only primary education. Despite 71.1% of respondents having secondary or tertiary education, a notable 20.0% had no formal education. This blend suggests a community that values education but also retains traditional knowledge. While higher education is often associated with a preference for modern healthcare in rural communities, even educated farmers may continue to use traditional medicine due to its affordability, accessibility, or cultural relevance (Ibrahim *et al*., 2020).

Most (56.7%) respondents had household size of between 5 and 9 members, 26.7% had 10 to 15 members, and 16.7% had 2 to 4 members. With a mean household size of 8, the demand for affordable and accessible healthcare is high. Traditional medicine offers a cost-effective alternative for large families, especially in treating common ailments like malaria, cough, stomach issues, or wounds (Alarima and Obikwelu, 2018).

Table 1 further reveals that majority (81.1%) of respondents reported being members of social organizations, while only 18.9% were not. These social groups often serve as platforms for knowledge exchange, including traditional practices. Ibrahim *et al*. (2020) submitted that through cooperatives, women's groups, or farmers’ associations, information about effective herbal treatments and local health practices is disseminated. This structure supports the continued relevance and adaptation of traditional medicine among rural farmers.

**Table 1: Distribution of the respondents according to their socioeconomic characteristics**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Percent (n = 90)** | **Mean** | **Standard deviation** |
| **Age** |  |  |  |
| 24-41 | 14.4 | 51.28 | 10.06 |
| 42-60 | 70.0 |  |  |
| 61-70 | 15.6 |  |  |
| **Level of education** |  |  |  |
| No formal education | 20.0 |  |  |
| Primary education | 8.9 |  |  |
| Secondary education | 40.0 |  |  |
| Tertiary education | 31.1 |  |  |
| **Household size** |  |  |  |
| 2-4 | 16.7 | 8.00 | 3.00 |
| 5-9 | 56.7 |  |  |
| 10-15 | 26.7 |  |  |
| **Membership of social organization** |  |  |  |
| No | 18.9 |  |  |
| Yes | 81.1 |  |  |

**Source: Field Survey, 2025**

**3.2 Rural farmers’ perception to traditional medicines**

Table 2 shows that the perception of the rural farmers on the utilization of traditional medicine was: traditional medicine is more effective for local disease (x̄=3.32), herbal remedies are safer than modern medicine (x̄=3.77), traditional medicine is unscientific and lack proofs (x̄=3.81), traditional remedies can be harmful if not correctly used (x̄=3.74), they are more affordable and accessible (x̄=385), and natural remedies are better for our health (x̄=3.83). Regarding their level of perception to utilize traditional medicine, Table 2 reveals that majority (70.0%) of rural farmers had a high level of perception. The result implies that higher proportion of the respondents had favourable disposition to the use of traditional medicine in treatment of different diseases in their communities. Perception plays a central role in influencing behavior. When rural farmers perceive traditional medicine favorably, they are more likely to utilize it regularly, recommend it to others, and support its preservation and promotion (Mbah and Ekweanya, 2019).

**Table 2: Distribution of the respondents according to their perception towards traditional medicine**

|  |  |  |
| --- | --- | --- |
| **Statements** | **Mean** | **Standard deviation** |
| Traditional medicine is more effective for local disease | 3.32 | 0.96 |
| Herbal remedies are safer than modern medicine | 3.77 | 0.46 |
| Traditional medicine is unscientific and lack proofs | 3.81 | 0.42 |
| Traditional remedies can be harmful if not correctly used | 3.74 | 0.50 |
| They are used by our ancestors, thus they work | 3.72 | 0.581 |
| They are more affordable and accessible | 3.85 | 0.46 |
| Modern medicine lack standardization and regulation | 3.77 | 0.55 |
| Some traditional healers are quacks | 3.64 | 0.69 |
| Natural remedies are better for our health | 3.83 | 0.50 |
| The traditional healers under our culture and spiritual needs | 3.78 | 0.48 |
| Traditional medicine helps to maintain our cultural heritage | 3.65 | 0.67 |
| Local herbs are readily available and easy to use | 3.75 | 0.56 |
| Our community trusts traditional healers | 3.65 | 0.76 |
| Traditional medicine promotes self-reliance | 3.51 | 0.85 |
| **Level of perception** | **%** |  |
| Low (Below) | 30.0 |  |
| High (Equal to and above mean) | 70.0 |  |

**Source: Field Survey, 2025**

**3.3 Use of traditional medicine among rural farmers**

Table 3 shows that treatment of rheumatism and digestive issue with *uziza* (*x̄* = 3.74), treatment of digestive problem with scent leaf (*x̄* = 3.57), treatment of rheumatism with *ekpuaku* (*x̄* = 3.56), treatment of malaria with *utazi* (*x̄* = 3.54), and treatment of skin disease and healing wound with snail mucin (*x̄* = 3.53) ranked among the foremost utilized traditional medicines by the rural farmers in Imo state. This finding reflects a strong inclination among rural farmers in the study area towards the utilization of traditional medicine, particularly for managing different common health conditions using locally available herbs and natural remedies (Mbah and Ekweanya, 2019). This finding also suggests that rural farmers had high confidence in traditional medicine and often turn to it as the first line of treatment for common ailments. Also, most of these remedies are locally sourced and inexpensive, making them more accessible than modern pharmaceuticals.

**Table 3: Distribution of the respondents according to their use of traditional medicine**

|  |  |  |  |
| --- | --- | --- | --- |
| **Traditional medicine** | **Mean** | **Standard deviation** | **Rank** |
| Treatment of rheumatism and digestive issue with *uziza* | 3.74 | 0.53 | 1st |
| Treatment of malaria with *utazi* | 3.54 | 0.65 | 4th |
| Treatment of malaria with bark of Africa Mahogamy | 3.33 | 0.84 | 9th |
| Treatment of skin conditions and wound with *ogilishi* leaves | 3.21 | 0.94 | 10th |
| Treatment of diarrhea and digestive issues with *nzu* (kaolin) | 3.40 | 0.92 | 7th |
| Treatment of fever and digestive issue with *ogiri* (fermented castor oil) is used to | 3.34 | 0.96 | 8th |
| Treatment of skin condition with *akpaku* (African oil bean) | 3.34 | 0.98 | 8th |
| Treatment of malaria with bitter leaf | 3.53 | 0.82 | 5th |
| Treatment of digestive problem with scent leaf | 3.57 | 0.83 | 2nd |
| Treatment of rheumatism with *ekpuaku* | 3.56 | 0.77 | 3rd |
| Treatment of skin disease and healing wound with snail mucin | 3.53 | 0.78 | 5th |
| Use of bee honey as antioxidant and healing of wounds | 3.50 | 0.82 | 6th |

**Source: Field Survey, 2025**

**3.4 Relationship between rural farmers’ perception and use of traditional medicine**

The null hypothesis for this study was that there is no significant relationship between rural farmers’ perception and use of traditional medicine. The finding in Table 4 however, reveals that a statistically significant relationship existed between rural famers’ perception and use of traditional medicine at 0.01 level. Hence, the null hypothesis is rejected. From this finding, it could be inferred that rural farmers’ disposition to traditional medicine affected their utilization of traditional medicine as Fasina et al. (2024) submitted that positive relationship exist between perception and utilization. The result indicates that the more favourable disposed the respondents were to traditional medicines, the more they utilized them and vice versa.

**Table 4: PPMC showing significant relationship between rural farmers’ perception and use of traditional medicine**

|  |  |
| --- | --- |
| **Variable** | **Utilization of traditional medicine** |
| **r** | **p-value** | **Decision** |
| Rural farmers’ perception | 0.427\*\* | 0.000 | Significant |

**Computed from Field Survey, 2025; \*\*Significant at 0.01**

**4.0 Conclusion and recommendations**

Despite varying educational background, majority of the rural farmers, including those with tertiary education, had favourable perception and frequent usage of traditional medicines possibly due to their affordability, cultural relevance, and accessibility. The most commonly utilized traditional medicines include *uziza*, scent leaf, *ekpuaku*, *utazi*, and snail mucin.

Collaboration between local herbalists, researchers, and universities should be encouraged by government to scientifically test and validate commonly used herbs like *uziza*, scent leaf, and *utazi* for efficacy and safety. Government as well as health institutions should organize sensitization and training programs to educate rural farmers on the safe and effective use of traditional medicine, particularly emphasizing preparation, dosage, and identification of toxic herbs. More so, since 81.1% of respondents belong to social organizations, these groups should be used as platforms for spreading accurate information about traditional medicine.

**Competing interests disclaimer**

Authors have declared that they have no known competing financial interests or non-financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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