

TYPES, HEALTH CONDITIONS AND SUPPORT FACTORS IN THE USE OF HERBAL REMEDIES AMONG EDUCATED ADULTS IN LAGOS, NIGERIA: IMPLICATIONS FOR HEALTH POLICY AND WOMEN'S SAFETY

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Abstract

The use of herbal medicine is a widespread, culturally-embedded practice in Nigeria, posing unique challenges and risks, particularly for women's health. This study investigated the types, health conditions and support factors of herbal medicine use among educated adults in Lagos State, with a focus on the implications for gender and health policy. A descriptive cross-sectional survey was conducted among 277 educated adults (57.8% male, 42.2% female) in various workplaces. Data were collected using a structured questionnaire and analysed using descriptive statistics. The study found high use: 84.5% of respondents had used herbal remedies, and 66.4% were current users. Knowledge was primarily transmitted through family (56.4%), indicating a strong cultural influence. While both genders showed high usage, the implications for women are more severe, given the use of unregulated remedies for gynaecological and fertility issues. Key motivators for use were perceived effectiveness (38.2%) and safety (30.0%). However, a significant lack of standardisation was evident, with 39.3% of users not adhering to specific dosages and 21.4% reporting adverse effects. Despite these risks, 79.4% of respondents supported the regulation and integration of herbal medicine. This study highlights an urgent need for policy reform to combat harmful traditional practices by regulating herbal remedies. Public health education must be gender-sensitive, addressing the specific vulnerabilities women face from unregulated herbal products. Integrating evidence-based herbal medicine into the formal healthcare system is crucial for ensuring safety and advancing women's health rights.

Keywords: Herbal Medicine, Gender and Health, Policy Reform, Women's Safety, Traditional Practices, Nigeria

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INTRODUCTION

Herbal medicine remains an integral component of healthcare in Nigeria, deeply rooted in cultural traditions and widely practised across all social classes. Despite advances in modern medicine, the use of herbal and alternative remedies continues to rise, particularly among educated adults. The World Health Organisation (WHO) approximates that about 80% of the world's population depends on traditional medicinal systems for some aspect of primary health care and encourages developing countries to complement their health programmes with traditional herbal preparations provided they are proven to be non-toxic (World Health Organisation [WHO], 2013). Herbal medicine is one of the major categories of complementary and alternative medicines (CAM), encompassing plant-based materials such as fruits, seeds, roots, rhizomes, leaves, bark, and flowers used as raw materials for self-administered pharmaceutical remedies (Sofowora, 2008; Evans, 2009).

Traditional medicine is a significant part of the Nigerian cultural heritage. Studies have consistently demonstrated substantial uptake of herbal medicine among Nigerians, regardless of educational

background. Maiyegun et al. (2022) found a lifetime prevalence of herbal medicine use at 76.65% in a National Health Insurance Clinic in Bauchi, Nigeria, whilst Mohammed et al. (2024) reported an even higher lifetime prevalence of 85.34% among patients in a general outpatient clinic of a tertiary hospital. Notably, among those with at least a secondary education, over 80% used herbal medicine, indicating its popularity among younger, educated individuals. Similarly, Ahwinahwi and Chukwudi (2016) observed that 81.78% of undergraduate students in Delta State University had used complementary and alternative medicine, with herbal medicine being the primary form.

Educated Nigerians turn to herbal medicine for a variety of reasons, including perceived effectiveness, affordability, accessibility, cultural beliefs and trust, and dissatisfaction with orthodox drugs (Ahwinahwi & Chukwudi, 2016; Maiyegun et al., 2022). However, this widespread use poses unique challenges and risks, particularly concerning women's health. Women often use unregulated remedies for gynaecological and fertility issues, exposing themselves to potential toxicity, mutagenic, carcinogenic, and teratogenic effects (Modibbo et al., 2024). Several challenges impede the safe and effective use of herbal medicine in Nigeria, including the lack of regulation and standardisation, insufficient scientific evidence, adverse effects, and interactions with conventional drugs (Adebayo et al., 2023; Modibbo et al., 2024). This study assessed knowledge, types, health conditions and support factors in the use of herbal remedies among educated adults in Lagos, Nigeria: implications for health policy and women's safety

METHODOLOGY

This study employed a descriptive cross-sectional design to assess the use of herbal remedies and alternative medicine among educated adults in Lagos State, Nigeria. Lagos is the smallest but most populous state in Nigeria, with a population exceeding 21 million, and is the nation's commercial hub, accounting for over 60% of industrial and commercial ventures. The state's literacy rate is 96.30%. It is home to numerous tertiary institutions, making it a suitable location for studying an urban, educated population (National Bureau of Statistics [NBS], 2024). The target population included consenting educated adults aged 18 years and above who had resided in Lagos State for at least two years.

A multistage sampling technique was utilised. In the first stage, two senatorial districts were randomly selected from the three districts in Lagos State using simple random sampling (balloting technique). In the second stage, two Local Government Areas (LGAs) were randomly selected from each chosen senatorial district, yielding a total of four LGAs. In the third stage, five public and five private corporate establishments were randomly selected from each LGA, giving a total of 40 establishments. A sample size of 340 was determined using the Cochran formula, based on a previous prevalence rate of 66.8% (Oreagba et al., 2011) and a 5% margin of error at a 95% confidence level.

Data were collected using a semi-structured, self-administered questionnaire distributed via online platforms. The instrument comprised four sections assessing socio-demographic characteristics, prevalence and knowledge of herbal medicine use, awareness of potential risks and benefits, and attitudes towards herbal medicine. The questionnaire was pre-tested among 30 educated adults in Surulere Local Government Area. A total of 277 valid questionnaires were returned out of 340 administered, representing an 81.5% response rate. Data were analysed using IBM SPSS version 29.0, employing descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics (Chi-square tests) to determine associations between variables. Ethical clearance was obtained from the Lagos State Ministry of Health Ethics and Research Committee, and informed verbal consent was secured from all participants.

RESULTS

The socio-demographic profile of the 277 respondents is presented in Table 1. The sample comprised more males (57.8%) than females (42.2%), with a mean age of 36.43 ± 10.55 years. The majority were aged 36-45 years (32.9%), married (58.8%), and Christian (64.3%). The predominant ethnic group was Yoruba (66.0%). In terms of education, 54.2% held a Higher National Diploma (HND) or Bachelor's degree, and 14.4% held a Master's degree. Professionally, 51.6% were public servants, and 49.1% earned between ₦200,000 and ₦500,000 monthly.

Table 1: Socio-Demographic Characteristics of Respondents (N = 277)

Socio-demographic Characteristics	Frequency (n)	Percentage (%)
Age-grouped (years)		
≤25	31	11.2
26 – 35	73	26.3
36 – 45	91	32.9
>45	82	29.6
Gender		
Female	117	42.2
Male	160	57.8
Marital status		
Married	163	58.8
Single	85	30.7
Widow	21	7.6
Divorce	8	2.9
Religion		
Christianity	178	64.3
Islam	92	33.2
Others	7	2.5
Ethnicity		
Yoruba	183	66.0
Igbo	38	13.7
Hausa	6	2.2
Others	50	18.1
Academic Qualification		
O Level	30	10.8
OND/NCE	55	19.9
HND/BSc/BA/B.Ed	150	54.2
MSc/MA/MPH	40	14.4
PhD/Post Doc	2	0.7
Profession		
Public Servant	143	51.6
Private Sectors	77	27.8
Business owners	30	10.8
Students	27	9.8
Income (₦/'000)		
<80	36	13.0
80 – 200	94	33.9
200 - 500	136	49.1
>500	11	4.0

A high percentage of respondents used herbal medicine: 84.5% (n = 234) reported using herbal remedies at some point, and 66.4% (n = 184) identified as current users. Knowledge about herbal medicine was primarily transmitted through informal networks, predominantly relatives (56.4%), followed by friends (9.8%), radio (8.6%), and neighbours (7.7%). Only 3.8% received information from qualified medical professionals, and 2.6% from herbal medicine practitioners. Regarding the frequency of use, 46.1% used herbal medicine weekly, 29.5% daily, 18.4% monthly, and 6.0% yearly.

Decoctions were the most common form of preparation (44.0%), followed by raw herbs (36.8%) and supplements (19.2%). A majority (78.2%) used herbal medicine alone, whilst 17.1% combined it with orthodox drugs. Notably, 39.3% reported not adhering to specified dosages, and 21.4% experienced adverse effects (Table 2).

Table 2: Knowledge and Usage of Herbal Medicine Among Respondents

S/No.	Questions	Frequency (N)	Percentage (%)
1	Have you ever used herbal medicine before?		
	Yes	234	84.5
	No	37	13.3
	Not sure	6	2.2
2	How did you get to know about herbal medicine?		
	Relatives	132	56.4
	Neighbours	18	7.7
	Friends	23	9.8
	Radio	20	8.6
	Television	14	6.0
	Medical staff	9	3.8
	Open Market Advertisement	12	5.1
	Herbal medicine Practitioner	6	2.6
3	Are you currently using any herbal medicine?		
	Yes	184	66.4
	No	93	33.6
4	How often do you use herbal medicine?		
	Daily	69	29.5
	Weekly	108	46.1
	Monthly	43	18.4
	Yearly	14	6.0
5	If yes, which one?		
	Agbo Iba	24	25.8
	Agbo Jedi	42	45.2
	Jinja-herbal mixture	15	16.1
	Oroki Herbal mixture	12	12.9
6	When was the last time you used herbal medicine?		
	This year	115	49.1
	Last year	93	39.7
	Not sure	26	11.1
7	What form of herbal medicine do you use more often?		
	Herbs		
	Supplements	86	36.8
	Decoctions	45	19.2
		103	44.0

S/No.	Questions	Frequency (N)	Percentage (%)
8	Did you use herbal medicine alone or in combination with orthodox drugs?		
	Alone	183	78.2
	Combination	40	17.1
	Not sure	11	4.7
9	Did you experience any unpleasant effect with the use of herbal medicine?		
	Yes	50	21.4
	No	165	70.5
	Not sure	19	8.1
10	Does the herbal medicine you take have a specified dosage?		
	Yes		
	No	110	47.0
	Not sure	92	39.3
		32	13.7

Table 3 presents herbal medicine type and health conditions, frequency and percentage of use, and components of herbal medicine use among respondents in Lagos State. It details the specific types of herbal medicines used by the respondents, the health conditions for which they are used, and the corresponding frequency and percentage of use. The analysis reveals a clear reliance on specific traditional concoctions for acute and common ailments. The respondents documented 18 herbal medicines. The most frequently used remedies are the traditional 'Agbo' mixtures. 'Agbo jedi-jedi' was the most frequently used herbal medicine, utilised by 22.2% (N=52) of respondents, primarily for gastrointestinal issues, lower back pain, and anal discomfort ('Jedi-Jedi'). 'Agbo iba' (for fever/malaria) followed closely, used by 18.4% (N=43) of respondents, highlighting the continued reliance on traditional remedies for prevalent infectious diseases.

The third most popular type was Jinja herbal mixture (a commercial product), used by 15.0% (N=35) of respondents, primarily targeting chronic issues such as ulcers, piles, and infertility. Moringa (6.8%, N=16) and Scent Leaf (3.4%, N=8) represent single-plant remedies used for chronic conditions (hypertension, diabetes) and common issues (diarrhoea, fever), respectively. Least Popular Products: Several commercial bitters and specific remedies, such as Ajase-poki-poki and Omega Root, were the least frequently used, each cited by only 1.3% (N=3) of respondents.

The results show a strong correlation between the type of herb used and the traditional ailment it targets. A cluster of symptoms (often grouped under 'Jedi-Jedi', Pile, and general ailment) dominates the usage pattern, being the primary target for the top-ranking 'Agbo jedi-jedi', as well as Yoyo bitter, Alomo bitter, and Jekomo.

Agbo iba and Jinja herbal mixture primarily target infectious diseases (Malaria/Typhoid) and symptoms of chronic infections (Ulcer, Staphylococcus) as reported by the respondents. Single-herb products like Moringa, Scent leaf, and Kakaraka (Bitter Melon) are specifically designed to manage chronic metabolic conditions (Hypertension, Diabetes) and align with scientifically supported traditional uses.

Table 3: Herbal Medicine Type and Health Conditions, Frequency and Percentage Usage, And Components Herbal Medicine Use Among Respondents

Herbal Medicine Type	Health condition	Frequency (N)	Percentage (%)	Components
'Agbo jedi-jedi'	Jedi-Jedi (lower back pain, gastrointestinal issues, anal and	52	22.2	Scented leaves (Pelargonium zonale (L.) L'Hér.), grapefruit (Citrus paradisi Macfad.) juice extracts, bitter leaf (Vernonia amygdalina Delile), Sorghum

Herbal Medicine Type	Health condition	Frequency (N)	Percentage (%)	Components
	abdominal discomfort			(Sorghum bicolor Moench) leaves, naphthalene tablets, garlic (<i>Allium sativum</i> L.)
'Agbo iba'	Malaria fever, Typhoid fever	43	18.4	Bark of pineapple (<i>Ananas comosus</i> (L.) Merr.) fruit, paw paw (<i>Carica papaya</i> L.) leaves and seeds, 'Dongoyaro' (<i>Azadirachta indica</i> A. Juss.) leaves, lime juice, lemon grass (<i>Cymbopogon citratus</i> Stapf.) leaves, guava (<i>Psidium guajava</i> L.) leaves, scented leaves (<i>Pelargonium zonale</i> (L.) L'Hér.)
Oroki herbal mixture®	Gastrointestinal issues and general ailments	12	5.1	Stem bark of African mahogany (<i>Khaya ivorensis</i> A.Chev.) tree, pattern wood (<i>Alstonia congensis</i> Engl.), mango (<i>Mangifera indica</i> L.) leaves, Sorghum (<i>Sorghum bicolor</i> Moench)
Herbal Tooth paste	Tooth ache/Tooth decay	11	4.7	Aloe vera (<i>Aloe barbadensis</i> Mill.)
Ajase-poki-poki	General ailments	3	1.3	Tobacco (<i>Nicotiana</i> L.) leaves, stem bark of coconut (<i>Cocos nucifera</i> L.), seeds and coat of alligator pepper (<i>Aframomum melegueta</i> K.Schum.)
Yoyo bitter	Gastrointestinal issues, lower back pain, pile, general ailment	6	2.6	Bitter leaf (<i>Vernonia amygdalina</i> Delile), ginger (<i>Zingiber officinale</i> Roscoe), scented leaves (<i>Pelargonium zonale</i> (L.) L'Hér.)
Kakaraka	Diabetes, fever and cold, gastrointestinal issues	5	2.1	Bitter Melon (<i>Momordica charantia</i>)
Splina	Toxins, skin sores, bad breath, body odour	8	3.4	Splina (<i>Bucataria corpulii</i>), natural honey
Omega root	Inflammatory conditions, malaria, staphylococcus, typhoid, syphilis	3	1.3	Coconut (<i>Cocos nucifera</i> L.) oil, Pawpaw (<i>Carica papaya</i>), Neem (<i>Azadirachta indica</i>), aloe vera (<i>Azadirachta indica</i>), fertility tree (<i>Newboudia laevis</i>)
Jobelyn	Anaemia, oxidative stress, inflammation and immuno-deficient condition	7	3	Sorghum (<i>Sorghum bicolor</i> Moench) leaves
Dudu-Osun soap	Eczema, acne, skin dryness	4	1.7	Palm kernel (<i>Elaeis guineensis</i> A. Chev.) oil, Camwood (<i>Baphia nitida</i>), Shea Butter (<i>Butyrospermum Parkii</i>)
Alomo bitter	Piles, lower back pain, general ailment	6	2.6	African breadfruit (<i>Treculia Africana</i> Decne. Ex Trécul), stem bark of African mahogany (<i>Khaya ivorensis</i> A. Chev.)
Jinja herbal mixture	Ulcer, Pile, Infertility, irregular menstruation, amenorrhea	35	15	Akatere (<i>Carpolobia alba</i>), Akara oje/Bonyin bonyin (<i>Cnestis ferruginea</i>), Indian heliotrope (<i>Heliotropium indicum</i>), blends of African herbs
Aporo Epa-ijebeu	General ailments, digestive issues, poison, wounds, infections	7	3	Mushroom (<i>Ganoderma lucidum</i>), Coconut (<i>Cocos nucifera</i> L.) oil and roots, blend of African herbs and snake head containing tannins, flavonoids, alkaloids,

Herbal Medicine Type	Health condition	Frequency (N)	Percentage (%)	Components
Jekomo	Pile (haemorrhoids), toxins, lower back pain	6	2.6	phlobatannins, anthocyanins, reducing sugars, saponins and anthraquinones. Bitter Leaf (<i>Vernonia amygdalina</i>), Ginger (<i>Zingiber officinale</i>), Turmeric (<i>Curcuma longa</i>), Moringa (<i>Moringa oleifera</i>), Lemon Grass (<i>Cymbopogon citratus</i>)
Moringa	Hypertension, fatty liver, diabetes, malnutrition, inflammation	16	6.8	Moringa (<i>Moringa oleifera</i>)
Scent leave	Diarrhoea, ulcer, bloating, fever, cough and flu	8	3.4	Scent (Ocimum gratissimum)
Gbefun	Low libido, Pile, Lower back pain	2	0.8	Ginger (<i>Zingiber officinale</i>), kola nut (<i>Cola nitida</i>), or cinnamon and blend of herbs from African roots and bark.

The support factors of respondents towards herbal medicine are presented in Table 3. The primary motivator for choosing herbal medicine was perceived effectiveness (38.2%), followed by safety (30.0%) and cost (24.9%). A significant majority (68.2%) believed in the efficacy of herbal medicine, and 38.3% considered it more effective than conventional medicine for treating ailments. Malaria was the most recommended ailment for herbal treatment (50.9%), followed by diabetes (20.2%) and hypertension (16.6%). There was overwhelming support for the formalisation of the sector: 79.4% supported the establishment of a regulatory board, 74.4% supported formal training institutions for practitioners, 70.7% supported the use and marketing of herbal medicine, and 64.6% supported the integration of herbal medical practice into the hospital system (Table 4).

Table 4: Respondents' Support Factors for Herbal Medicine Use (N = 277)

S/No	Questions	Frequency (n)	Percentage (%)
1	What informed your choice to use herbal medicine?		
	Safety	83	30
	Availability	23	8.3
	Effectiveness	102	38.2
	Cost	69	24.9
2	Do you believe in the efficacy of herbal medicine?		
	Yes	189	68.2
	No	66	23.8
	Not sure	22	7.9
3	Do you think herbal remedies are more effective in treating ailments than conventional medicines?		
	Yes	106	38.3
	No	89	32.1
	Not sure	82	29.6
4	If yes, what type of ailment will you recommend for treatment using herbal		

S/No	Questions	Frequency (n)	Percentage (%)
	medicine?		
	Hypertension	46	16.6
	Diabetes	56	20.2
	Malaria	140	50.9
	Sickle cell anaemia	19	14.1
	Asthma	15	12.6
5	Do you support the use and marketing of herbal medicine?		
	Yes	196	70.7
	No	42	15.2
	Not sure	39	14.1
6	Do you support the establishment of a formal institution to train herbal medicine practitioners in the state?		
	Yes	206	74.4
	No	48	17.3
	Not sure	23	8.3
8	Do you support the establishment of a board to regulate herbal medicines and activities of herbal practitioners in the state?		
	Yes	220	79.4
	No	24	8.7
	Not sure	33	11.9
9	Do you support integrating herbal medicine into our hospital system?		
	Yes	192	64.6
	No	75	27.1
	Not sure	23	8.3

Regarding risk awareness, 51.3% of respondents did not believe there was any risk associated with herbal medicine use, whilst 38.3% acknowledged potential risks. Among those aware of risks, incorrect dosage or overdose was the most cited concern (42.2%), followed by contamination (31.1%) and adverse reactions (26.7%). A majority (67.9%) believed herbal medicine was beneficial to health, citing effectiveness (45.7%) and natural safety (36.2%) as the primary benefits (Table 5).

Table 5: Awareness of Potential Risks and Benefits of Herbal Medicine Use

S/N	Questions	Frequency (n)	Percentage (%)
1	Do you think there could be any risk or danger with use of herbal medicine?		
	Yes	106	38.3

	No	142	51.3
	Not Sure	29	10.4
2	If yes, state the potential risk(s) or danger		
	Adverse reaction	36	26.7
	Contamination	42	31.1
	Incorrect dosage/overdose	57	42.2
3	Do you think herbal medicine is beneficial to health?		
	Yes	188	67.9
	No	47	17.0
	Not sure	42	15.1
4	If yes, what is/are the benefits of herbal medicine use?		
	Effective	86	45.7
	Natural and safe	68	36.2
	Affordable	22	11.7
	Availability	12	6.4

There was a statistically significant association between educational level and herbal medicine use status. Respondents with HND/BSc/BA/B. Ed qualifications recorded the highest usage rate (88.7%), whilst those with O Level had the highest proportion of non-users (30.0%). Conversely, no statistically significant association was found between profession and herbal medicine use status ($\chi^2 = 5.677$, $p = 0.129$), indicating that herbal medicine use transcends occupational boundaries (Table 6).

Table 6: Relationship Between Level of Education and Herbal Medicine Use Status

Educational Level	Non-Users n (%)	Users n (%)	Total
O Level	9 (30.0%)	21 (70.0%)	30
OND/NCE	7 (12.7%)	48 (87.3%)	55
HND/BSc/BA/B.Ed	17 (11.3%)	133 (88.7%)	150
MSc/MA/MPH	9 (22.5%)	31 (77.5%)	40
PhD/Post Doc	1 (50.0%)	1 (50.0%)	2
Total	43	234	277

$\chi^2 = 10.428$, $p = 0.034$

DISCUSSION

The findings establish the dominant role of herbal medicine in the healthcare-seeking behaviour of educated adults in Lagos State. The high use (84.5%) aligns with the vast majority of WHO Member States reporting that between 40% and 99% of their populations actively use traditional medicine (WHO, 2013), suggesting that herbal medicine use is not restricted to rural or uneducated cohorts but

is actively embraced by urban professionals. This finding is consistent with the work of Mohammed et al. (2024), who reported an 85.34% lifetime prevalence among patients in a tertiary hospital, and Maiyegun et al. (2022), who found a 76.65% prevalence in Bauchi. The continued reliance on traditional decoctions, particularly 'Agbo jedi-jedi' (22.2%) and 'Agbo iba' (18.4%), confirms the enduring relevance of indigenous remedies for acute, high-prevalence conditions such as gastrointestinal ailments and malaria (Abubakar & Hassan, 2021).

The core motivation for choosing herbal medicine was perceived effectiveness (38.2%), followed by safety (30.0%). The finding reinforces the conviction that 68.2% of respondents believed in the efficacy of herbal medicine, leading 50.9% to recommend it for treating serious conditions such as malaria. The high perceived efficacy aligns with studies indicating that personal experience and positive testimonials often outweigh scientific evidence in influencing health decisions regarding traditional medicine (Olayemi, 2020). However, this strong belief in effectiveness and safety directly contrasts with the study's objective risks, particularly the finding that 39.3% of users did not adhere to the specified dosages and 21.4% reported adverse effects.

The analysis revealed a statistically significant association between educational level and herbal medicine use status ($\chi^2 = 10.428$, $p = 0.034$). Crucially, this finding contradicts the expectation that herbal medicine use diminishes with formal education, as the highest usage rate (88.7%) was observed among HND/Bachelor's degree holders. This counterintuitive result suggests a sophisticated pattern of integrative healthcare-seeking among the educated Lagos populace, in which herbal medicine is adopted as a complementary or primary option rather than a last resort. Conversely, no statistically significant association was found between profession and herbal medicine use status ($\chi^2 = 5.677$, $p = 0.129$), indicating that the practice transcends occupational boundaries and is rooted in deeply embedded cultural practices.

The perception-risk disparity is a major public health concern. Despite the data identifying potentially dangerous components in popular herbal products, a majority of respondents (51.3%) perceived no risk associated with their use. This disparity highlights a dangerous lack of public awareness regarding quality control and the potential for toxicity, echoing concerns over the lack of product standardisation in developing countries (Ekor, 2014). The implications for women are particularly severe. Women frequently use unregulated herbal preparations for sensitive gynaecological and fertility issues, including remedies like Jinja herbal mixture (15.0%), which is marketed for conditions such as infertility and irregular menstruation. The absence of standardised dosages and quality controls in these products exposes women to significant health risks, including teratogenic and carcinogenic effects (Modibbo et al., 2024). This gendered vulnerability demands targeted policy intervention.

The overwhelming support for regulation (79.4%), formal practitioner training (74.4%), and hospital integration (64.6%) is a direct consequence of this underlying tension. Respondents appear to recognise the systemic flaws and are actively demanding government intervention to mitigate risks and formalise the practice. This strong mandate from the educated public aligns with the WHO's (2019) global call to standardise and integrate proven traditional medicine into national healthcare systems under stringent regulatory frameworks.

CONCLUSION

This study demonstrated that herbal medicine remains a culturally entrenched and widely utilised healthcare option among educated adults in Lagos State, driven by perceptions of efficacy and safety rather than scientific validation. The current landscape of unregulated use, reliance on informal knowledge networks, and inconsistent dosing practices poses significant health risks, with particularly severe implications for women who use these products for gynaecological and fertility conditions. Education alone does not deter the use of herbal remedies; rather, it informs a pragmatic, albeit risky, integration of traditional and modern health practices. The strong public demand for regulation and formalisation provides a clear mandate for policy action.

RECOMMENDATIONS

First, the National Agency for Food and Drug Administration and Control (NAFDAC) must intensify monitoring, registration, and standardisation of herbal products, and enforce mandatory labelling of active ingredients, dosage instructions, and potential side effects. Second, gender-sensitive public health education campaigns should be developed to address the specific vulnerabilities women face from unregulated herbal products, particularly those marketed for gynaecological and fertility issues. Third, formal healthcare systems should establish protocols for routine screening of herbal medicine use during clinical consultations to mitigate the risks of adverse herb-drug interactions. Fourth, universities and research institutes should conduct rigorous laboratory evaluations and clinical trials to validate the safety and efficacy of commonly used Nigerian herbal remedies. Fifth, the Federal Ministry of Health should establish formal training and certification programmes for herbal medicine practitioners to ensure minimum safety and practice standards.

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