

DETERMINANTS OF TRADITIONAL MEDICATION UTILIZATION AMONG PREGNANT WOMEN ACCESSING CARE AT A PRIMARY HEALTH CARE CENTER IN ANAMBRA STATE

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ABSTRACT

Traditional medicines play a role in pregnancy management in many countries, including those with access to modern healthcare. However, maternal mortality resulting from utilization of traditional medicines remains a critical public health challenge in Sub-Saharan Africa, with Nigeria bearing a substantial proportion of pregnancy-related deaths. Assess the determinants of Traditional Medicine utilization by pregnant women accessing Healthcare in a Primary Health care Facility in Anambra State. A descriptive cross-sectional study was conducted. The sample size of 115 was determined using Taro Yamane's formula, while the systematic sampling technique was employed. Data were analyzed using descriptive statistics and the chi-square test. The study revealed that 88 respondents (76.52%) reported oral use of traditional medicines, 69 (60%) applied it topically, and 78 (67.83%) expressed willingness to use herbal medicine in future pregnancies. All the domains on determinants and reasons for utilizing traditional medicine were statistically significant ($p < 0.05$) on the

chi-square test indicating that the determinants and reasons differ significantly from the utilization of traditional medicine The study concluded that the utilization rate the participants were very high. Hence there are Statistical significant association between the determinants and the utilization rate of traditional medicine utilization

Keywords: *Traditional Medicine, Utilization Rate, Primary Health Care Center, Pregnant Women.*

Introduction

Traditional medicines continue to play a role in pregnancy management in many countries, including those with access to modern healthcare. Traditional medicine refers to the use of plants, animals, or minerals through ingestion, injection, or absorption by humans. It encompasses knowledge, skills, and practices rooted in cultural beliefs and experiences, used for maintaining health, preventing, diagnosing, or treating physical and mental illnesses (Mudonhi & Nunu, 2022).

Cultural and traditional health practices significantly influence maternal healthcare worldwide. Pregnant women use a variety of traditional medicines, including herbal concoctions made from ginger root, scent leaves, moringa oleifera, and aloe vera, among others, for diverse reasons. The main motivations include convenience, accessibility, and perceived therapeutic benefits. These remedies are often used to promote an uncomplicated pregnancy, shorten labor, and enhance breastfeeding (Fokunang et al., 2020, Gyasi et al., 2023). Culture significantly influences health and illness behaviors, with traditional medicine forming an integral part of cultural practices.

Traditional health facilities often rely on traditional medicine and indigenous practices for their operations (Emogie & Grace, 2021, Mothupi, 2021). In Nigeria, traditional medicine, including services offered by traditional birth attendants, remains widely used and indispensable. Emogie and Grace (2021) attribute this popularity to several factors: Traditional practitioners operate within the cultural system and are integrated members of the community. Their services are easily accessible, provide low-cost care, believed to possess the ability to address both physical and spiritually-induced ailments, employ culturally relevant tools and resources and align with local belief systems regarding witchcraft, sorcery, ancestral spirits, and deities, which are thought to influence health and misfortune.

Religious beliefs and social factors also influence healthcare-seeking behavior. Literacy, financial resources, and socioeconomic status affect an individual's likelihood of using modern healthcare services (Bergstrom & Goodburn, 2021).

Okojie (2020) observed that many people attribute illnesses to supernatural causes such as the influence of enemies, witchcraft, or ancestral punishment. Some women avoid modern medicine due to religious or cultural beliefs. Additionally, widespread poverty and low literacy rates in Nigeria contribute to continued reliance on traditional medicine, including among pregnant women.

In sub-Saharan Africa, traditional or herbal medicine usage among pregnant women is also widespread (Aljofan&Alkhamaiseh, 2020). Over 80% of the population relies on traditional medicine, especially in rural areas where it may be the only accessible primary healthcare option (Kasilo&Trapsida, 2022).

For instance, in Saudi Arabia, many pregnant women reportedly use traditional medicines (Golmei et al., 2021). Similarly, studies indicate that about 34% of pregnant women in Malaysia, 32% in Central Africa, and 45% in East Africa use traditional remedies (Golmei et al., 2021). Globally, approximately 80% of the population relies on some form of traditional medicine, including herbal remedies, for illness management and overall wellness (Daly, Tai, Deng & Chien, 2022).

However, these medicines are associated with adverse maternal outcomes such as hemorrhage, puerperal infections, obstructed labor, gestational hypertension, maternal sepsis, and unsafe abortions (Ahmed et al., 2020). The growing use of traditional remedies has become a public health concern in developing countries, particularly in Africa (Aljofan&Alkhamaiseh, 2020). This issue is compounded by the tendency of pregnant women to withhold information about traditional medicine usage when interacting with healthcare providers, which can lead to harmful effects during pregnancy (Golmei et al., 2021).

The use of traditional or herbal medicine during pregnancy is linked to reduced access to formal maternal healthcare services, such as prenatal care and facility-based deliveries, which are critical for reducing maternal mortality (James et al., 2020). In addition, there is limited evidence regarding the safety of these practices during pregnancy (Bercaw, Maheshwari &SangiHaghpeykar, 2020). According to the framework of Complementary and Alternative Drugs (CADs), the safety and potential adverse effects of herbal medicines during pregnancy are not well-established, and information about the purity of these preparations is limited (Daly, Tai, Deng & Chien, 2022). Moreso, traditional medicine use has been associated with complications such as hemorrhage, puerperal infections, obstructed labor, gestational hypertension, maternal sepsis, and unsafe abortions (Kasilo&Trapsida, 2022).

Despite these risks, women continue to seek the services of traditional birth attendants and use traditional remedies (Adams, 2020). Often, complications during delivery force these women to seek hospital care, which jeopardizes

maternal and child health. Furthermore, non-disclosure of traditional medicine use to healthcare providers complicates clinical management (James et al., 2020).

Traditional medicine, particularly herbal medicine, has attracted attention in clinical, public health, policy, and research contexts due to potential risks associated with its use during pregnancy. These risks may arise from the herbs themselves, interactions with conventional medications, or contamination with toxic substances like heavy metals (Aljofan&Alkhamaiseh, 2020).

Maternal mortality remains a critical public health challenge in Sub-Saharan Africa, with Nigeria bearing a substantial proportion of pregnancy-related deaths (WHO, 2019). Hence, this study therefore focuses on looking at those determinants of traditional medicines utilization among pregnant women attending Primary Healthcare Centre.

Method and Material

Research Design

A descriptive cross-sectional design was employed to assess determinants of traditional medicine utilization among pregnant women attending the antenatal clinic at Ubahomonun Primary Healthcare Centre, Okija, Ihiala Local Government Area.

Study Setting

The study was conducted at Ubahomonun Primary Healthcare Centre in Okija, Ihiala Local Government Area, Anambra State. The center is a key healthcare facility in the community, offering maternal and child health services, health education, routine immunization, family planning, and treatment of minor ailments. The healthcare team comprises doctors, nurses, midwives, pharmacists, laboratory technicians, and community health workers.

Okija is a major town in Ihiala Local Government Area (LGA). The town is bordered by Ihiala, Ozubulu, Ihembosi, Ukpok, and Ogbakuba (Olu).

Target Population

The target population consisted of all pregnant women registered for antenatal care at Ubahomonun Primary Healthcare Centre, Okija.

Sample size Determination

In this research, the sample size was determined using the Taro Yamane formula to ensure adequate representation of the target population.

$$N = N / (1 + N(e)^2)$$

Where N = number of people in the population

e = allowable error i.e. 0.05

Substituting numbers into the formula.

$$\begin{aligned}n &= 159 / 1 + 159(0.0025) \\ &= 159 / 1.38 \\ &= 115\end{aligned}$$

Sampling Technique

A systematic sampling technique was employed for this study. The first respondent was selected by random sampling and from then onward every 3rd respondent on the list was selected till a sample of 115 respondents was achieved.

Instrument for Data Collection

Data were collected using a structured, self-developed questionnaire designed by the researcher based on the study objectives and reviewed literature.

Validity of the Research Instrument

The validity of the instrument was ensured through expert judgment. Face and content validity were assessed by two experts. Items were reviewed for relevance and clarity, and corrections were made before questionnaire administration to ensure the instrument measured what it intended to measure.

Reliability of the Research Instrument

Reliability was established using the test-retest method. Twelve pregnant women (10% of the sample) attending antenatal care at Umuatuegwu Primary Health Centre (outside the study area) were given the questionnaire. Two weeks later, the same group completed the questionnaire. Responses from the administered questionnaire were analyzed using Pearson's Product Moment Correlation. The instrument was deemed reliable with a correlation coefficient of 0.76.

Data Collection Procedure

Data were collected using researcher-administered questionnaires. A letter of introduction was obtained from the Head of Department of Nursing, Tansian University, and submitted to the Community Health Officer at Ubahomonun PHC, who granted permission. Respondents were provided with a consent form explaining the purpose of the study and assuring confidentiality. Two trained research assistants were employed to administer the 115 questionnaires and also assisting respondents who were illiterate. Data collection was completed within four weeks during antenatal clinic days.

Method of Data Analysis

The collected data were analyzed using descriptive statistics. Similarly, Statistical Package for the Social Sciences (SPSS) version 25 (Inc., Chicago, Illinois, USA) was used to calculate the chi-square in order to determine the level of significance,

which was set at 95% confidence interval ($p < 0.05$).

Ethical Considerations

Ethical clearance was obtained from the Hospital Board Coordinator, Ihiala Local Government, following a letter of introduction from the Head of Department of Nursing Science, Tansian University. Participants' privacy and confidentiality were maintained, with no names or addresses recorded on the questionnaire. Informed consent was obtained from each participant, who was informed of their right to withdraw at any time. The researcher ensured that no harm occurred during the data collection process.

Result

Table 1: Utilization of Traditional Medicine during Pregnancy (N = 115)

Variable		Attribute Frequency	Percentage (%)
Have you ever taken traditional medicine during pregnancy?	Yes	88	76.52
	No	27	23.48
Have you ever drunk native medicine during pregnancy?	Yes	69	60.00
	No	46	40.00
Did you use any traditional medicine to rub on your body while pregnant?	Yes	72	62.61
	No	43	37.39
Will you use herbal medicine in future pregnancies?	Yes	78	67.83
	No	37	32.17

As shown in Table 1, most respondents (88; 76.52%) reported taking traditional medicine during pregnancy. Additionally, 72 (62.61%) used traditional medicine topically, and 78 (67.83%) expressed willingness to use herbal medicine in future

pregnancies.

Table 2: Determinants of Utilization of Traditional Medicine by Pregnant women

Utilization Factors	Utilization		Chi-Square
	Yes ()	No ()	
Cures my ailment			
Yes	78 (74.3)	27 (25.7)	
No	0 (0.0)	10 (100.0)	23.089 (.000)
Saves time			
Yes	74 (100.0)	0 (0.0)	
No	4 (9.8)	37 (90.2)	98.458 (.000)
Saves money			
Yes	78 (90.7)	8 (9.3)	
No	0 (0.0)	29 (100.0)	81.750 (.000)
Fewer side effects than conventional medicine			
Yes	78 (79.6)	20 (20.4)	
No	0 (0.0)	17 (100.0)	42.055 (.000)
Easily accessible than conventional medicine			
Yes	68 (100.0)	0 (0.0)	
No	10 (21.3)	37 (78.7)	78.925 (.000)
Less expensive than conventional medicine			
Yes	78 (100.0)	0 (0.0)	
No	0 (0.0)	37 (100.0)	115.000 (.000)

Table 2 shows that 78 (74.3) agree using traditional medicine to cure their ailment while 27 (25.7) disagrees. Similarly, 65 (100.0) of the respondents agrees long distance to health facility is a determinant in their utilization of traditional medicine while 0 (0.0) of the respondents disagrees. However, all the domains on Chi square were statistically significant ($p < 0.05$). Hence the determinants factors differs from the utilization rate of traditional medicine

Table 3: Reasons for taking Traditional Medicines among Pregnant women

Reasons	Utilization		Chi-square
	Yes	No	
Pain			
Yes	78 (74.3)	27 (25.7)	
No	0 (0.0)	10 (100.0)	23.089 (.000)
Stretch mark			
Yes	74 (100.0)	0 (0.0)	
No	4 (9.8)	37 (90.2)	98.458 (.000)
Cold and flu			
Yes	78 (90.7)	8 (9.3)	
No	0 (0.0)	29 (100.0)	81.750 (.000)
Morning sickness			
Yes	78 (79.6)	20 (20.4)	
No	0 (0.0)	17 (100.0)	42.055 (.000)
Stomach discomfort			
Yes	68 (100.0)	0 (0.0)	
No	10 (21.3)	37 (78.7)	78.925(.000)
Headache			
Yes	78 (100.0)	0 (0.0)	
No	0 (0.0)	37 (100.0)	115.000 (.000)
Fever			
Yes	78 (74.3)	27 (25.7)	

Table 3 shows that 78 (74.3) that treating pain is the reason for using agree using traditional medicine while 27 (25.7) disagrees. Similarly, 65 (100.0) stated that blood pressure control is the reason for traditional medicine while 0 (0.0) of the respondents disagrees. However, all the domains on Chi square were statistically significant ($p < 0.05$). Hence the reason for the usage differs from the utilization of Traditional medicine

Discussion

The study revealed a high level of utilization, with 88 respondents (76.52%) reporting oral use of traditional medicines, 69 (60%) applying it topically, and 78 (67.83%) expressing willingness to use herbal medicine in future pregnancies. This aligns with Zewdneh, Tinashe, and Smith (2021), who reported an 80% prevalence among African women, and Azriani, Rahman, Lin, and Siti (2020), who recorded 95% use in Tumpat District, Kelantan, Malaysia. However, the finding contrasts with Mothupi (2021), who reported only 12% usage among pregnant women in Nairobi, Kenya. This high level of utilization rate of these traditional medicines, as seen in this study, might account for the high incidence associated with adverse maternal outcomes such as haemorrhage, puerperal infections, obstructed labor, gestational hypertension, maternal sepsis, and unsafe abortions (Ahmed et al., 2020; Mabina, Pitsoe, and Moodley, 2021).

However, this is in contrast with Mudonhi and Nunu (2022), who assessed the relationship between traditional medicine use and maternal complications during antenatal care in Bulilima, Plumtree, Zimbabwe. A quantitative cross-sectional survey of 185 women was conducted using a pre-tested semi-structured questionnaire. Analyses with Fisher's Exact Test and the Test of Proportions revealed that 29% of participants reported complications. Women who did not use traditional medicine had a higher proportion of complications (30%) compared to those who did (26%). The study concluded that traditional medicine use was associated with a lower prevalence of maternal complications.

Respondents primarily used traditional medicines to manage minor ailments and pregnancy-related discomforts, including pain (91.30%), fever (91.30%), morning sickness (85.22%), cold and flu (74.78%), headache (67.83%), stretch marks (64.35%), stomach discomfort (59.13%), and blood pressure control (56.52%). This is consistent with Bellington (2020), who found Zambian women used traditional medicines for labour induction and prevention of complications, and with Zewdneh, Tinashe, and Smith (2021), who reported an 80% prevalence of herbal medicine use for pregnancy-related symptoms. Conversely, Mudonhi and Nunu (2022) reported only 26% prevalence for similar reasons among women in Zimbabwe.

The study found that respondents' use was motivated by beliefs that traditional

medicines cure ailments, save time and money, have fewer side effects, are easier to access, less expensive, and available without a doctor's prescription. This is consistent with the findings by Mvulakazi, Nomatshila, Olanrewaju, and Musarurwa (2022), who explored pregnant women's perceptions of traditional maternal health practices in South Africa. Using a descriptive phenomenological approach, 27 purposively selected pregnant women from the King SabathaDalindyebo health sub-district participated in three focus groups. Content analysis revealed strong support for traditional practices. Commonly used remedies included African mahogany bark, herbal decoctions, and holy water, which were believed to ease labor pains, support postnatal care, and protect against evil spirits. However, the protection of traditional knowledge posed challenges to integrating these practices into the national health system.

Additional factors include poor funding and limited availability of conventional medicines. These findings corroborate Dafam, Denou, and Idoko (2022), who identified perceived effectiveness, accessibility, and lower side effects as key reasons for herbal medicine use among pregnant women in Jos. Similarly, Omole-Ohonsi and Aiyedun (2019) reported that traditional practice and family influence were significant determinants of herbal medicine use during pregnancy. Hence, the high level of utilization rate was noticed in this study.

Conclusion

The study concluded that pregnant women attending Ubahomonun PHC exhibit high levels of traditional medicine use. The main reasons x-rayed were management of pain, stretch marks, cold and flu, morning sickness, stomach discomfort, headache, fever, and high blood pressure. Also, key influencing factors included were perceived effectiveness, cost and time savings, fewer side effects, accessibility, and inadequate government provision of medicines. Hence, there are Statistical significant association between the determinants and reasons and the utilization rate of traditional medicine utilization

Recommendations

Based on the findings, the following recommendations are made:

Promote female formal education and their socio-economic empowerment to reduce reliance on harmful traditional medicines during pregnancy.

Healthcare personnel should change their negative attitudes towards pregnant women accessing health

Health organizations should provide continuous information and improved healthcare services to reduce unnecessary use of traditional medicines.

Pregnant women should be advised to strictly adhere to prenatal, antenatal, and postnatal care without self-medication.

Government policies should be implemented to control traditional medicine use among pregnant women and site health care facilities within a walking distance to pregnant women

References

- Adams, J. (2020). Growing popularity of complementary and alternative medicine during pregnancy and implications for healthcare providers. *Expert Review of Obstetrics & Gynecology*, 6, 365–366.
- Ahmed, S. M., Nordeng, H., Sundby, J., & Aragaw, H. (2020). The use of medicinal plants by pregnant women in Africa: A systematic review. *Journal of Ethnopharmacology*, 224, 297–313.
- Aljofan, M., & Alkhamaiseh, S. (2020). Prevalence and factors influencing use of herbal medicines during pregnancy in Hail, Saudi Arabia: A cross-sectional study. *Sultan Qaboos University Medical Journal*, 20, e71–e76.
- Azriani, A., Rahman, Z. A., Lin, N., & Siti, A. (2020). The use of herbal medicines during pregnancy and perinatal mortality in Tumpat District, Kelantan, Malaysia. *Herbal Medicines and Perinatal Mortality*, 3 (1), 1–12.
- Bellington, W. (2020). “Back to Eden”: An explorative qualitative study on traditional medicine use during pregnancy among selected women in Lusaka Province, Zambia. *Complementary Therapies in Clinical Practice*, 40(2), 101–120.
- Bercaw, J., Maheshwari, B., & Sangi-Haghpeykar, H. (2020). The use during pregnancy of prescription, over-the-counter, and alternative medications among Hispanic women. *Birth*, 37, 211–218.
- Bergstrom, S., & Goodburn, E. (2021). Maternal and Perinatal Health. A Review of the Evidence. ITG Press, Antwerp. London: Macmillan Education.
- Dafam, D. G., Denou, A., & Idoko, A. (2022). Use of herbal medicine during pregnancy and attitudes of pregnant women in Jos, Nigeria. *Journal of Pharmacy and Bioresources*, 18(1), 64–73.
- Daly, M., Tai, C. J., Deng, C. Y. & Chien, L. Y., (2022). Factors associated with utilization of traditional Chinese medicine by white collar foreign workers living in Taiwan, February. *BMC Health Services Research*. 9(1, article 10):10 DOI: 10.1186/1472-6963-9-10
- Emogie, A. & Grace, O. (2021). Traditional Medicine and the Role of Traditional Birth Attendants in Nigeria. *African Journal of Reproductive Health*, 6(2):94-100 DOI:10.2307/3583135
- Fokunang, C., Ndikum, V., Tabi, O., Jiofack, R., Ngameni, B., Guedje, N., & Tembe, G. (2020). Traditional, complementary, and alternative medicine use

- in Sub-Saharan Africa: A systematic review. *BMJ Global Health*, 5, e302–e309. <https://doi.org/10.1016/j.wombi.2017.12.006>
- Gyasi, R. M., Asante, F., Segbefia, A. Y., Abass, K., Mensah, C. M., & Siaw, L. P. (2023). Use of herbal medicine during pregnancy in Sierra Leone: An exploratory cross-sectional study. In *Evidence-Based Validation of Traditional Medicines* (pp. 711–726). Springer.
- Golmei, P., Kalita, P., Agrawal, S., Ahmed, A. B., Sen, S., & Chakraborty, R. (2021). Healthsystem of Cameroon. *African Journal of Traditional, Complementary and Alternative Medicine*, 8, 284–295.
- James, P. B., Bah, A. J., Tommy, M. S., & Wardle, J. (2020). Herbal medicines use by Pregnantwomen: What physicians need to know. *Frontiers in Pharmacology*, 10, 1483.
- Kasilo, O. M., & Trapsida, J. M. (2022). Regulation of traditional medicine in the WHO African region. *African Health Monitor*, 14, 25–31.
- Mabina, M. H., Pitsoe, S. B., & Moodley, J. (2021). The effect of traditional herbal medicines on pregnancy outcome: The King Edward VIII Hospital experience. *South African Medical Journal*, 117(1), 23–32.
- Mothupi, M. C. (2021). Use of herbal medicine during pregnancy among women with complications during antenatal care. *Maternal Health, Neonatology, and Perinatology*, 5, 86.
- Mudonhi, N., & Nunu, W. N. (2022). Traditional medicine utilisation and maternal healthoutcomes in Zimbabwe. *BMC Complementary and Alternative Medicine*, 17, 382.
- Mvulakazi, P. T., Nomatshila, S. C., Olanrewaju, O., & Musarurwa, H. (2022). Perceptions of pregnant women on traditional health practices in a rural setting in South Africa. *International Journal of Environmental Research and Public Health*, 19, 4189.
- Okojie, C. E. E. (2020). *Gender and Health-Seeking Behaviour in Nigeria*. Ibadan: University Press.
- Omole-Ohonsi, A., & Aiyedun, T. A. (2019). Use of herbal medicines in pregnancy in AminuKano Teaching Hospital: Myth or reality? *Tropical Journal of Obstetrics and Gynaecology*, 30(1), 23–32.
- World Health Organization. (2020). WHO global report on traditional and complementary medicine 2020. (Accessed on 23/4/2024) <https://apps.who.int/iris/bitstream/handle/10665/312342/9789241515436-eng.pdf>
- Zewdneh, S., Tinashe, D. & Smith, C.A. (2021). The use of traditional medicine in maternity care among African women in Africa and the diaspora: a systematic review. *BMCComplementary and Alt*