

Types of Knowledge Shared Among Rural Women in the Northern Region of Ghana for Poverty Eradication

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Abstract: This paper explores the types of knowledge shared among rural women in the northern region of Ghana for poverty eradication and make recommendations to enhance knowledge sharing among rural women in the northern region of Ghana. It uses qualitative research approach within an interpretive paradigm, primary data were collected from 111 rural women across the Tintang, Tongnoli, and Nagbali communities through face-to-face interviews, focus-group discussions, and direct observations. The findings reveal that rural women predominantly share indigenous knowledge related to agriculture, traditional crafts, maternal health, societal norms, and various local expertise. However, their access to external formal/technical knowledge is limited, which hinders their ability to enrich their existing knowledge for poverty alleviation. The study recommends expanding access to new types of knowledge through mobile network infrastructure, community radios, and other knowledge-sharing tools. Additionally, providing education and skill development opportunities is essential for fostering innovation and enhancing agricultural productivity. The paper further emphasizes the need to refine and repackage indigenous knowledge in a way that integrates external knowledge while preserving its core value, ensuring that it remains relevant for sustainable development. These findings align with the Sustainable Development Goals (SDGs), specifically Goal 1 (No Poverty) and Goal 5 (Gender Equality). The study was limited to rural women in Tintang, Tongnoli and Nagbali communities in the northern region of Ghana. A further study covering rural communities in other regions in Ghana is recommended.

Keywords: Knowledge sharing, Types of knowledge, Rural women, Northern region, Ghana

1. Introduction

Knowledge sharing empowers rural women and addresses poverty in developing regions (Mchombu & Mchombu 2014:5; Taylor & Ramos 2016). Knowledge itself is a fundamental resource for socio-economic development and poverty eradication (Karlsson & Johansson 2006:3; Romer 1990:71). The ability to make informed decisions about investments in land, labour, technology, and capital hinges on access to relevant knowledge (Fombad 2018:2). It is not just cognitive knowledge (know-what) or technical skills (know-how), but also deeper system understanding and problem-solving abilities (know-why) that enable individuals to address complex challenges and foster growth (Mohajan 2016:10; Quinn, Anderson & Finkelstein 1996). Given that knowledge is power—its absence leaves individuals and communities vulnerable. The lack of access to critical knowledge perpetuates cycles of poverty by limiting opportunities for better decision-making, development and growth (Akhter & Cheng 2020:3; United Nations Women Watch 2012:4).

Rural women in Ghana contribute a significant portion of the agricultural workforce and household leadership (Ghana Statistical Service, 2021). Studies highlight that rural development efforts often emphasize tacit, indigenous, and local knowledge (Burch 2007:5; Cummings et al. 2019:161; FAO 2010:7; Rahman 2000:4). However, technical knowledge, typically acquired through formal education, is also essential for enhancing livelihoods (FAO 2010:7). The distinction between these knowledge types, as well as the challenges in integrating them, stresses the need for structured knowledge-sharing mechanisms (Burch 2007:14). In northern Ghana, poverty rates remain relatively high at 28% (Ghana Living Standards Survey Round 7/GLSS7 2018:17). Literature on rural development and poverty eradication has highlighted tacit knowledge, with most studies focusing on informal, local, traditional, or indigenous knowledge (Burch 2007:5; Cummings et al. 2019:161; FAO 2010:7; Rahman 2000:4; Ugboma 2014). By examining the interplay between indigenous and technical knowledge, the study contributes to ongoing discussions on rural women's empowerment and sustainable poverty eradication aligned with the United Nations Sustainable Development Goals (UN 2017:3-5). In exploring the types of knowledge shared among rural women in the northern region of Ghana, the study was guided by the following research questions:

- What are the types of knowledge shared for poverty eradication among rural women?
- What are the ways by which the types of knowledge shared by rural women in the northern region of Ghana may be enhanced?

2. Literature Review

2.1 Knowledge

Knowledge has been classified into various categories. Zaim, Gürcan, Tarımcı, Zaim and Alpkan, (2015:760) categorize knowledge as individual or group, internal or external, hard or soft. Kimble, Hildreth & Wright (2000:3) as practical or theoretical. Fueston (2008:51) identifies revealed, speculative, empirical scientific, and practical empirical knowledge. Bhasin (2019) classify knowledge into thirteen types, including tacit, explicit, empirical, procedural, meta-knowledge, and propositional knowledge. This paper defines knowledge as a flexible, socially driven process where curiosity, conversation, and social ties facilitate learning and the exchange of experiences (Davenport & Prusak 1998:5; Xue 2017:32; Weinberger 2010).

Among all these categories tacit and explicit knowledge are the most common types of knowledge. (Fombad 2018:6; Gamble 2020; Xin 2020:42; Joia & Lemos 2010; Khatun 2018:59). Tacit knowledge exists in the mind as intuition, experience, and know-how (Panahi, Watson & Partridge 2012:648-649). It is personal and based on individual experience (Xue 2017:33), making it the most valuable form of human knowledge (Abidi, Cheah & Curran 2005). For example, an experienced farmer may instinctively treat animal diseases yet struggle to codify his knowledge for a beginner. In rural areas, tacit knowledge is indigenous knowledge, serving as a vital resource for preserving heritage, learning, problem-solving, and innovation (Fombad 2018:6). While FAO (2010:7) advocates for rural women to possess technical knowledge, Bohrer (2012:9) stresses the importance of raising awareness of indigenous knowledge. However, human development is typically measured by formal knowledge, neglecting the capacity of societies to create and exchange knowledge (Cummings et al. 2019:161). The distinction between indigenous and technical knowledge lies in their acquisition—technical knowledge is learned through formal training, while indigenous knowledge is derived from lived experiences (Rahman 2000:4).

2.2 Indigenous Knowledge

Ugboma (2014:60) defines indigenous knowledge as knowledge rooted in a community's tradition or culture, passed down through generations. Often referred to as local, traditional, or ancestral knowledge (Burch 2007:14; Rahman 2000:1), it is inborn and does not stem from formal education. In rural areas, tacit knowledge manifests as indigenous knowledge, evolving within the local community (Tire 2006:63). This knowledge includes not only local wisdom, but also scientific and external knowledge acquired over time (Rahman 2000:3). While it cannot solve all poverty-related issues on its own, it plays a vital role in discussions on poverty eradication in developing countries (Rahman 2000:3). However, gaining the full benefits of indigenous knowledge requires more than simply mobilizing people; it involves initiatives such as shared meetings, radio programs, messages, publications, music, dance, and local knowledge facilitators (Arce & Long 1992:211; Karamagi 2009).

2.3 Formal/Technical Knowledge

Fueston (2008:51) defines formal/technical knowledge as knowledge gained or refined through tools that enhance our physical senses, such as empirical knowledge from qualitative or quantitative observations, experiments, or measurements. Often technology-based and accumulated over time, technical knowledge is challenging to convey through written or spoken forms (Wang, Tseng & Yen 2014:454). To share this knowledge with rural women, particularly those with low literacy, experts or knowledgeable individuals must present it in a more accessible format.

2.4 Acceptable use of Indigenous and Formal Knowledge

The level at which indigenous or formal knowledge is accepted for use by rural communities has become a subject of research (Kolawole 2001:13). It remains unclear how much indigenous knowledge is still relevant, whether certain knowledge systems should be abandoned, and how much external knowledge should be embraced. Kolawole (2001:13) suggests that local communities tend to favor knowledge proven within their own socio-economic, political, and ecological context over foreign ideas. He emphasizes the importance of respecting cultural norms when introducing external knowledge. Addressing the integration of indigenous and formal knowledge, Hess's (2006) argues that successful knowledge-sharing requires mutual respect and trust, a shared language, a common knowledge foundation, and a growth mindset among stakeholders.

3. Research Methodology

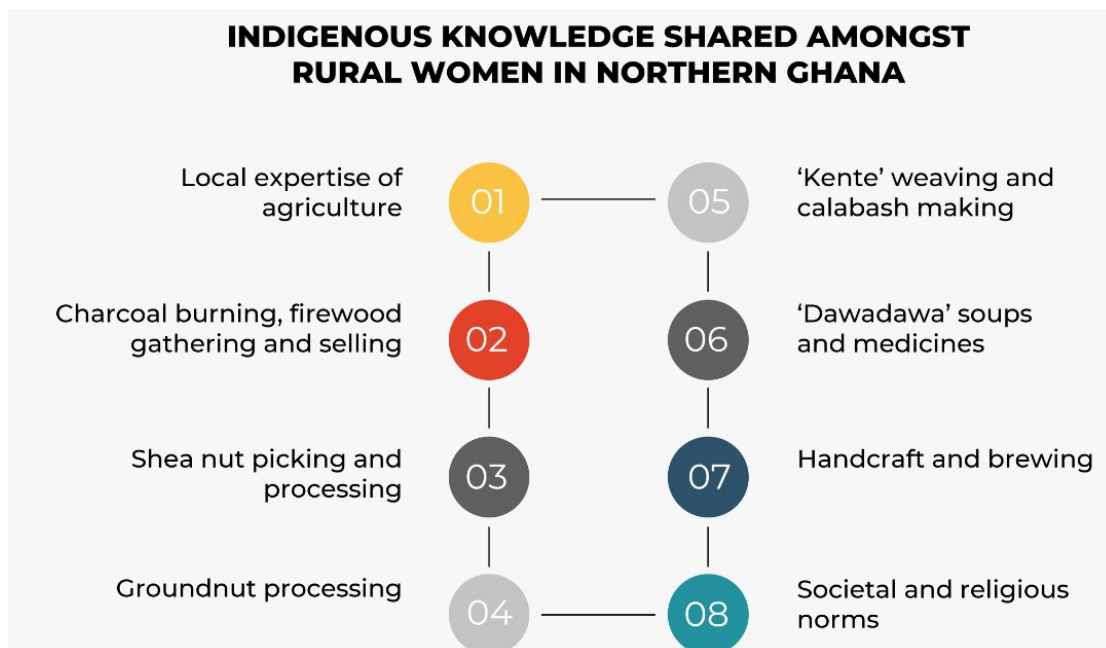
The study adopted a qualitative approach within an interpretive paradigm. The qualitative method allowed for in-depth interaction with rural women, providing insights into their experiences that would not have been possible using a quantitative approach. Primary data was collected from 111 rural participants, with 32

interviewed, 79 involved in focus groups, and 16 observed during various situations. Snowball sampling was employed to recruit interview participants, starting with one identified through a community leader, and subsequent participants were referred by those already engaged. This method was chosen because the total number of rural women in Tintang, Tongnoli, and Nagbali was unknown. Focus-group participants were also selected using snowball sampling, where those interviewed invited other rural women, they knew to join. Throughout the data-collection process, direct observations were made, including during interviews and focus-group discussions. The observations were unstructured, focusing on situations related to the study's objectives and ignoring those that were not. Thematic analysis was applied to the interviews, focus groups, and observations, following Braun and Clarke's (2006) six-step approach. The researchers familiarized themselves with the data by verbatim self-transcribing responses in the participants' local dialect (Dagbani) and translating them into English. After transcription, initial codes were created for each participant, and themes were identified within the responses to find relevant answers.

4. Findings and Discussions

4.1 Indigenous Tacit Knowledge

As noted in Figure 1, indigenous tacit knowledge emerged as the major type of knowledge shared among rural women in the northern region of Ghana. This indigenous knowledge shared is primarily tied to their local expertise in agriculture, charcoal burning, shea nut picking and processing, and groundnut processing. Handcraft and brewing, hats and 'smock' weaving, calabash making, 'dawadawa' soups and medicines, and gathering firewood are other types of knowledge shared. Indigenous knowledge also involves societal and religious norms like educating their children on how to coexist peacefully with rivals and neighbours. According to the findings, older women pass on indigenous wisdom to younger generations as younger women observe the older women's daily routines. Rural women occasionally gather ingredients or resources and pass on their knowledge to rural girls or anyone willing to learn.



Source: Author's construct (2025)

Figure 1: Indigenous knowledge shared among rural women in the northern region, Ghana

"No new knowledge comes from outside the community, but among us, we collaborate to help plough in each other's farm so that each person can cover more acres. We are also able to have more harvest by sharing our indigenous knowledge. It helps us to support each other." N-P1

"We have no knowledge to share apart from teaching each other how to process shea and burn charcoal for sale. However, the roads are bad; we can't even send it out to sell. We just sell to our neighbors" TON-P1

"The only knowledge we share is on our local farming methods. Not health, education or anything." TIN-P10

"The only knowledge shared with us was on soap making. Every woman in Nagbali was trained in it but the capital to start making the soap is not available. Apart from that we only share our local knowledge on charcoal burning and farming." N-P2

The focus group findings below also confirmed indigenous knowledge as the only knowledge rural women share in the northern region of Ghana.

"We only share our indigenous knowledge which hasn't so far helped us to eradicate poverty. If we get someone to bring us some knowledge that will benefit us and help us out of poverty, we will appreciate it." N-SP1, N-SP2

"We only share the indigenous knowledge our parents passed on to us." TIN-SP1

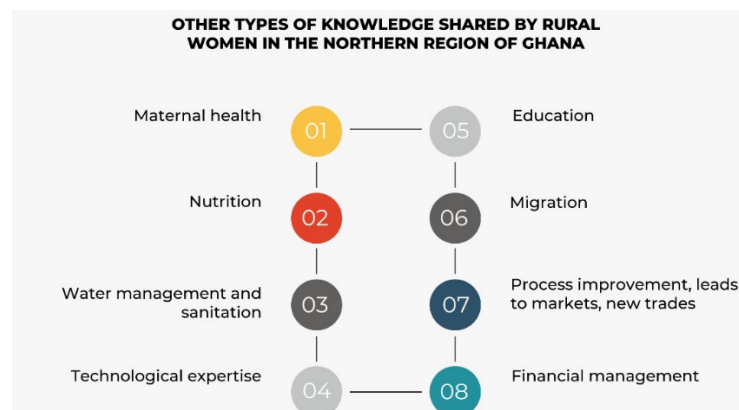
"The only knowledge we have is charcoal burning..." TIN-SP2

From the direct observations, it appeared most rural women appreciated the role indigenous knowledge play in sustaining their livelihoods. They always brought rural girls along to teach them different indigenous types of knowledge. An example is sharing knowledge on how to prepare specific herbal medicines and traditional birth attendance.

Several studies have demonstrated the effectiveness of indigenous knowledge in eradicating poverty among rural women (Adeyeye & Mason 2020:27; Bouzarjomehri 2018:19; Mhlono 2021:378; Montanari & Bergh 2019:1; Ndlela, Mkwanazi & Chimonyo 2021:6; Nyeleka, Taruvunga, Zhou, & Mopipi 2019:231; Tire 2006:63). Unfortunately, imposing western viewpoints and practices has resulted in the devaluation of indigenous knowledge (Adeyeye & Mason 2020:29; Ali, Buergelt, Paton, Smith, Maypilama, Yungirrrja, Dhamarrandji, & Gundjarranbuy 2021:15; Ezeanya-Esiobu, Oguamanam & Ndungutse 2020:2). Similarly, several researchers have raised concern about the poor value placed on indigenous knowledge (Adeyeye & Mason 2020:30; Bouzarjomehri 2018:20; Ogar, Pecl & Mustonen 2020:162). According to Bouzarjomehri (2018:20), until recently, although research showed indigenous knowledge and practices to be useful to environmental protection and sustainable livelihood, policymakers and planners rejected them owing to modernisation until the late 1980s. Some participants (e.g. TON-P1 and TON-P2) were unclear about the worth of their indigenous knowledge, indicating that modernity has impacted how some indigenous people regard their local knowledge. While rural women still cherish their indigenous wisdom, the study's findings show that they are fed up with decades of the same procedures and knowledge passed down from their forefathers that never change or develop. This could explain their increased curiosity and drive to learn new things.

4.2 Other Types of Knowledge Shared Among Rural Women

To further understand the type of knowledge shared by rural women, it was crucial to establish their knowledge needs. Using interviews, focus groups and observations, the findings revealed that rural women need new knowledge, including maternal health, nutrition, education, water management and sanitation, education, financial management, technological expertise, leads to market centres and buyers, and knowledge to improve their shea processing and agricultural production as demonstrated in Figure 2 below.



Source: Author's construct (2025)

Figure 2: Other types of knowledge shared by rural women in the northern region, Ghana

This is evident in the following responses from the interview:

"We need new knowledge to improve our shea butter processing method. We are unable to process the shea because it goes along with a miller which the community lacks. Even if we had the miller, there is also no electricity for it to operate. The current local knowledge for processing shea butter is long and laborious and yet we get very little from the buyers for the shea butter." TON-P1 and TIN-P1

"We need knowledge on leads to the market centres. Sometimes before we get to the market, sales have been closed due to difficulty in getting a means of transportation from the communities to the market in Sang. By the time we return home, it is usually dark, and we have probably sold nothing." TON-P5

Most participants expressed the view that there are partner NGOs with the technology to speed up local shea processing times as well as buyer knowledge. Instead of teaching them how to use the technology, they operate as middlemen, buy the shea nuts for less from the rural women, and then use their equipment to extract the shea for sale at higher prices. This prompted TON-P1 to express that learning about new technology will help them advance their understanding of turning shea nuts into shea butter. A traditional birth attendant, TON-P3 also had this to say:

"I need new knowledge as a traditional birth attendant to enhance baby deliveries. I therefore do wish that my knowledge of childbirth will be updated to reflect contemporary procedures used elsewhere. Right now, sometimes the issues are beyond me."

The interview findings were corroborated by the focus group finding where new knowledge emerged as a key theme in the types of knowledge rural women need as reported in the following responses.

"We need knowledge on how to prepare liquid soap like other communities" TIN-SP1

"Any kind of knowledge that can help improve our lives would be welcomed." TIN-SP2

The researchers observed that the current procedures the group of rural women employed to complete the local shea butter production process from beginning to end were time-consuming. Technology to improve this lengthy process is what most of the rural women desire.

While rural women still cherish their indigenous wisdom, the study's findings show that they are fed up with decades of the same procedures and knowledge passed down from their forefathers that never change or develop. This could explain their increased curiosity and drive to learn new things. The sharing of new types of knowledge is viewed as critical for rural women's poverty eradication (Eitzinger, Cock, Atzmanstorfer, Binder, Läderach, Bonilla-Findji, Bartling, Mwongera, Zurita & Jarvis 2019:110; Makate 2019:277; Mchombu & Mchombu 2014:5; Upali 2013:184; Wei et al. 2021:2). Meanwhile, a healthy combination of indigenous and other formal/technical knowledge has been promoted by several researchers (Bouzarjomehri 2018:18; Hess 2006; Kolawole 2001:13; Makate 2019:282; Ogar et al 2020:163). As a result, when new knowledge is transmitted among rural women, a strategy is required to ensure that the knowledge to be shared is not one-sided; this study intends to fill that need.

5. Recommendations to Enhance the Types of Knowledge Shared Among Rural Women in the Northern Region of Ghana

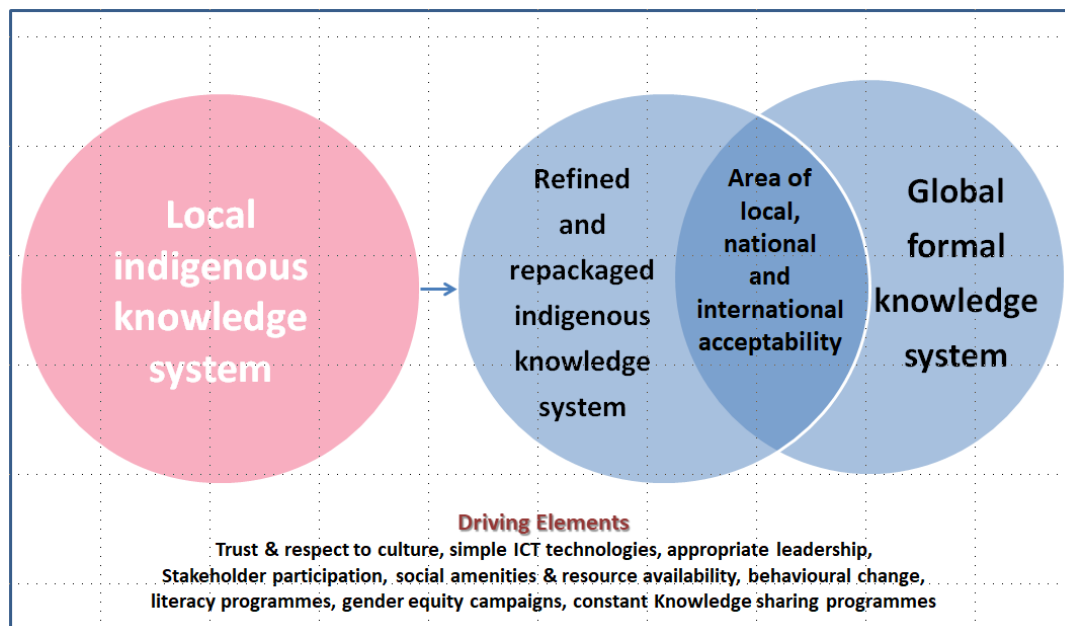
The finding revealed that rural women share indigenous knowledge but have limited access to formal/technical sources of knowledge to enrich their existing indigenous knowledge for poverty eradication. The researchers, therefore, suggest the following:

There is a need for rural women to increase their access to new types of knowledge to enhance poverty eradication. This could be accomplished by expanding mobile network access, community radios and usage of other knowledge-sharing tools and techniques suggested in the "Knowledge Sharing Strategy for Poverty Eradication among Rural Women" proposed by Bonuedie and Fombad (2024, p.12). These tools and techniques will improve access to new types of knowledge, such as maternal health, nutrition, water management, new trades, migration, education, process improvement, market leads, sanitation, and introduction to technologies that can scale up agricultural production and access to market information.

Efforts could be directed towards the education and skill development of these women. Providing rural women with training and educational opportunities will inspire their intellectual abilities to generate new ideas and novel solutions, which will result in the establishment of alternative businesses in rural communities to support

their agricultural production, as well as improve their capacity to receive other types of knowledge shared on new farming techniques and assimilate new technologies that are critical for increasing agricultural productivity.

New or external knowledge should be utilized to refine and repackage indigenous knowledge. The acceptable levels of indigenous and technical knowledge when refining and repackaging indigenous knowledge have become a subject of research (Ali et al., 2021; Dutfield, 2017; Kolawole, 2001). The question remains how much indigenous knowledge should be preserved, which knowledge systems to abandon, and how much formal knowledge should be adopted to enrich it. Findings suggest that simply overlapping indigenous and formal/technical knowledge may result in competition, with indigenous knowledge losing acceptance. Bouzarjomehri (2018) emphasized that indigenous and formal knowledge should complement, not compete with, each other. Refining indigenous knowledge involves removing undesirable aspects, while repackaging presents it in a more understandable and usable format (Mole, Ekwelem & Din, 2018). Some repackaged indigenous knowledge can be commercialized, while others may not. Trust, respect for culture, stakeholder participation, and ongoing knowledge-sharing are key elements of this theory.



Source: Researcher's construct (2025)

Figure 3: Theory on the refinement and repacking of indigenous knowledge

6. Conclusion

This paper explores the types of knowledge shared among rural women in the northern region of Ghana and established the types of knowledge shared for poverty eradication. Among which are knowledge related to local expertise in agriculture, charcoal burning, shea nut picking, processing, groundnut processing, handcrafting, brewing, weaving, and other traditional practices. Additionally, knowledge on societal norms, maternal health, nutrition, water management, climate change, and financial management are also shared. Despite the richness of indigenous knowledge, the study highlighted that rural women had limited access to external sources of knowledge that could enrich their existing knowledge for poverty alleviation. The findings further revealed the importance of sharing indigenous knowledge among rural women. Based on these findings, it was concluded that while rural women in northern Ghana predominantly rely on indigenous knowledge for poverty eradication, there is a need to enhance their access to external knowledge sources. This could significantly expand their capacity for overcoming poverty and improving their livelihoods. The paper recommends an increase access to new knowledge through mobile networks, community radios, and other knowledge-sharing tools that complement indigenous knowledge. Additionally, providing education and skill development opportunities will empower rural women, enabling them to generate innovative solutions, improve agricultural productivity, and integrate new technologies that can drive economic growth. The paper also suggests that external knowledge should be used to refine and repackage indigenous knowledge in ways that preserves its value while enhancing its applicability. A participatory approach that involves rural women and stakeholders is crucial when refining indigenous knowledge to avoid devaluation, as modifying it without due care can lead to its misrecognition. This

paper emphasizes the importance of preserving indigenous knowledge while also integrating new, external knowledge to enrich the types of knowledge shared among rural women.

The study was limited to rural women in Tintang, Tongnoli and Nagbali communities in the northern region of Ghana. A further study covering rural communities in other regions in Ghana is recommended. Second, despite the use of local interpreters fluent in Dagbani and other dialects, subtle meanings embedded in indigenous expressions may not have been fully captured or translated. Lastly, due to resource and time constraints, the research was limited to adult and younger women and did not include perspectives from men, who also play a role in knowledge transmission and community decision-making. Future research should explore how these recommendations can be applied in other rural communities. A mixed-method approach could also be considered in future for a more comprehensive understanding of the types of knowledge shared among rural communities in Ghana.

7. Practical and Theoretical Implications

Theoretically, the study contributes to ongoing discussions on knowledge integration in rural development by highlighting the complementarity of indigenous and formal knowledge. While indigenous knowledge—such as farming practices, craft-making, and maternal care is contextually grounded and widely shared among rural women, the findings reveal that its transformative potential is constrained without access to external technical knowledge. This reinforces existing literature that recognises the importance of both tacit and explicit knowledge in addressing complex development challenges (Cummings et al. 2019; Xin 2020:42).

Practically, the study offers context-specific recommendations to improve knowledge sharing among rural women in the northern region of Ghana. These include:

- Expanding access to new knowledge through improved mobile network coverage, community radio programming, and other accessible communication tools;
- Strengthening educational and skills development opportunities to enhance women's capacity to absorb and apply both indigenous and external knowledge;
- Promoting the refinement and repackaging of indigenous knowledge in a way that maintains cultural integrity while integrating useful external insights.

These implications are aligned with broader development objectives and policy frameworks, particularly the Sustainable Development Goals—Goal 1 (No Poverty) and Goal 5 (Gender Equality). The findings highlight the importance of inclusive and adaptive knowledge-sharing strategies that build on existing community strengths while addressing knowledge gaps that hinder innovation and productivity.

Ethics declaration: This is part of the PhD findings of the student at the university of South Africa the University of South Africa's (UNISA) ethical clearance standards were followed. The acknowledged all sources cited, listing all complete quoted references, and signing a declaration that the contents are the researcher's work. The researcher asked the Mion district assembly for permission to study the three rural communities in their district after gaining consent from the university.

AI declaration: No AI tools were used in the creation of the paper.

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