

Current Uses of Cowries in Traditional Medicine After their Disuse as Currency-A Cross-Sectional Study in Ghana

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Abstract

Cowries were imported into West Africa to serve as money, but this role had been replaced by modern currencies. This study, therefore, investigated what roles cowries that are still being sold in markets continue to play. A cross-sectional study using a semi-structured questionnaire was used to collect data from fourteen Traditional Medicine Vendors (TMV) in the two major markets in the Tamale metropolis. Data were analyzed with Statistical Package for Social Sciences, version 25. Although the knowledge of the TMV on cowries can be considered as good (67.1%), only 42.9% knew cowries are animals. Cowries according to TMVs are used by their clients for spiritual/magical purposes (29.4%), decorations (23.5%), treatment of physical diseases (23.5%), and payment of dowries (11.8%). Protection against evil forces was their main spiritual use while medically, they are commonly used to treat skin disorders. Further studies to confirm their medicinal uses are required.

Keywords: Cowries; Disuse; Currency; Ghana

Introduction

Cowrie also spelt cowry derived from the Indian Hindi language is a generic term that is used to describe shells from a type of molluscs that belongs to the family *Cypraeidae* [1,2]. These omnivorous gastropods on polyps, some corals, algae, etc using their ribbon-like tongue called radula [1]. According to National Geographic, (n.d), there are about 250 known cowrie species. The term 'cowrie' is however usually used to describe two species; *Monetaria moneta* and *Monetaria annulus* (formerly called *Cypraea moneta* and *Cypraea annulus* respectively). Although similar species are found in some places such as the Gulf of Guinea, the *M. moneta* and *M. annulus* are found in the Indian-Pacific oceans from the Maldives Islands and also in some East African coasts and islands especially in Zanzibar, a Tanzanian archipelago [1]. These cowries were shipped from these places since the 16th century by European merchants to several destinations across the globe including India and West Africa where *M. moneta* and *M. annulus* have played the role of currency for the exchange of goods and services [1,3-6]. Cowries are used for several non-currency purposes which include adornment or decoration of various objects; spiritual and magical purposes such as divination as well as treatment of various human physical diseases [7,8]. In many parts of West Africa, cowries are used in divination to know the minds of the gods and the goddesses [1,4,7-9]. Among ancient Egyptians, cowries were also used for the activation and enhancement of fertility since the ventral aperture resembles the vulva of the human female genitalia [7]. Cowries are used in the making of amulets and other protective ornaments and garments with this protective ability attributable to the resemblance of the ventral surface of the cowries to the human eye [7]. There are reports of cowries used to decorate the human body in the form of bracelets, and hair attachments among others [7,10]. Although cowries are no more used as currency, they are being sold by traditional medicine sellers in Ghana which means they are still used for other purposes. Although Yiribe [3] presented an insider's perspective on the unique role cowries play among the Dagaaba, an ethnic group located in Northwestern part of Ghana on some uses in that cultural setting, some gaps were observed. This study fills that gap since our search did not find any original research on what traditional medicine vendors know about cowries and why their clients still patronize these shells.

Method

This was a cross-sectional study successfully conducted among fourteen (14) out of the twenty-one (21) Traditional Medicine Vendors (TMV) in two major markets (Tamale Central and Aboabo) in the Tamale metropolis. Trading activities occur in these markets on all the days of the week. Tamale, the only city in northern Ghana is the capital city of the Northern Region and is made up of 155 suburbs. Ghana Statistical Service [11] report on the 2010 Population and Housing Census provided information on the demography, location, and other relevant information on the study site. The Tamale Metropolis is bordered to the North-West by the Sagnerigu District, Mion District to the East, East Gonja to the South and Central Gonja to the Southwest. The Tamale metropolis which lies between latitude 9°16 and 9° 34 North and longitudes 0° 36 and 0° 57 West occupies an estimated landmass of 646.9km². The population of the Tamale metropolis as indicated in the 2010 census report was 233,252 of which 49.7% were males. The majority of persons in the Tamale metropolis are of the Dagomba ethnic group but the Gonjas, Mamprusis, Gurunsis, Akans, and the Dagaabas are also well represented in the metropolis. Tamale is dominated by persons who ascribe to the Islamic religion but also have a deep interest in cultural practices such as their festivals notably the Damba and the Bugum (fire) festivals. The collection of the data involved six Doctor of Pharmacy students at the School of Pharmacy and Pharmaceutical Sciences of the University for Development Studies. These students who were trained in data collection techniques and procedures visited the markets four times between March and April 2022. They explained the purpose of the study to all the 21 TMVs in the market and 14 gave their verbal consent to partake in the study. A semi-structured questionnaire that served as an interview guide was administered to collect the data from them. They were assured of the confidentiality of the data collected and were at liberty to discontinue responding if they so wish during the interaction.

Part of the questionnaire collected the vendor's biota while other parts assessed the knowledge of the vendors about cowries, how cowries are called in the various Ghanaian languages they speak and what their clients use the cowries for. The following four questions were used to assess the knowledge of the vendors on cowries and their responses were scored; Is it true or false that cowries were once used as currency (1 mark); Are cowries' animals, harvested from plants or gotten from the soil or ground (2 marks)? Are they gotten from water (1 mark)? What type of water body are cowries gotten from (1 mark)? The total score (maximum 5) for each individual vendor and their mean scores for the various questions was calculated and converted into percentages. The data which was entered into Microsoft excel was analyzed using Statistical Package for the Social Sciences (Version 25) and the results were presented in tables and charts. All ethical considerations were observed during the collection of the data. Since most of the traditional medicine vendors were unlettered, verbal consent was obtained after they were educated about the essence of the study. They were also duly informed that they could withdraw from the study whenever they were not comfortable during the interview.

Results

Biodata of the animal medicine vendors

Table 1 shows the sociodemographic characteristics of the respondents. The majority, 8(57.1%) of the vendors were 39 years and above but the average age of the vendors who took part in the study was 41.8 years. Secondary level education was the highest education for most of them, 6(42.0%) but there was one vendor who had tertiary level education (7.1%). An equal number of vendors had been in the animal medicine sales trade for less than 10 years and more than 20 years, 5(41.7%). Of the two markets in Tamale, the majority of vendors who agreed to partake in the study were from the Aboabo market, 10(71.4%) while the rest, 4(38.6%) were from the Tamale Central market. Half, 7(50.0%) of the vendors said they belong to the Hausa tribe.

Table 1: Biodata of animal based medicine vendors.

Variable	Subgroup	Frequency	Percentage
Age	<30	3	21.4
	30-39	3	21.4
	>39	8	57.1
Level of education	None	5	35.7
	Primary	1	7.1
	JHS/Middle School	1	7.1
	SHS/Voc/Tech	6	42.9
	Tertiary	1	7.1
Tribe	Hausa	7	50
	Dagomba	5	35.7
	Kotokoli	2	14.3
Market place	Central market	4	28.6
	Aboabo	10	71.4
Duration of trade (n=12)	≤10	5	41.7
	11 to 20	2	16.7
	>20	5	41.7

Some local Ghanaian names for cowries

Table 2: Local names of cowries and their literal meaning.

Language	The Local Name of Cowries	Literal Meaning
Hausa	Farinkudi	White money
Mampruli	Lapiela	White money
Dagbani	Lakpara	No literal meaning
Twi	Sedie/Sika fitaa	White money
Kotokoli	Bilepem	White money
Grune	Laapiela	White money
Nanugli	Laapiela	White money

In the northern Ghanaian languages of Mampruli, Grune, and Nanugli, cowries are called Lapiela, but in Hausa, they are referred to as Farinkudi. Cowries are known as Lakpara in Dagbanli, the main language spoken in Tamale, while in Kotokoli, another language spoken in northern Ghana, cowries are called Bilepem. The Twi, (the most spoken language in southern to the middle belt of Ghana) the name of cowries is sedie or sika fitaa. The literal meaning of the

local names of cowries for most of the languages indicated in Table 2 is 'white money'.

Level of knowledge of vendors about cowries

All traditional medicine vendors in the two markets in Tamale had cowries among their wares but the overall knowledge that these vendors have about cowries as shown in Table 3 can be said to be just good (3.36 over 5.0 equivalent to 67.1%). All vendors

knew that cowries were previously used as currency but up to 21.4% were not aware it was from water and for those who knew water as its habitat, up to 90.9% correctly stated the sea as the water body they are found in. However, majority of the vendors, 8(57.1%) did not know that cowries are shells of animals. Just 3(21.4%) respondents had knowledge scores that can be classified as poor while 5 respondents each can be considered to have good and excellent knowledge about cowries.

Table 3: Traditional medicine vendors' knowledge about cowries they sell. Classification of scores: <50% - poor, 50-75% - good, 75-90% - very good, >90% - excellent.

Questions	Response	Frequency	Percentage	Mean correct score \pm Standard deviation	Percentage level of correct scores
Cowries were once used as currency	Yes	14	100	1.00	100
	No	0	0		
Is it gotten from water?	No	3	21.4	0.79 \pm 0.426	79.0%
	Yes	11	78.6		
Is it from a river or sea source	Sea	10	90.9	0.71 \pm 0.469	71.0%
	River	1	9.1		
Are cowries animals, plants materials, or from the earth?	Incorrect	8	57.1	0.86 \pm 1.027	42.90%
	Correct	6	42.9		
Level of knowledge	Poor	3	21.4	3.36 \pm 1.55	67.10%
	Good	5	35.7		
	Very good	1	7.1		
	Excellent	5	35.7		

Current uses of cowries

Figure 1 shows what traditional medicine vendors know the buyers of the cowries use them for. Whereas, 2(11.8%) indicated they do not know what their clients use the cowries for,

others mentioned some general uses such as payment of bride price, 2(11.8%), treatment of some physical diseases, 4(23.5%) decoration purposes, 4(23.5%) and spiritual or magical activities, 5(29.4%).

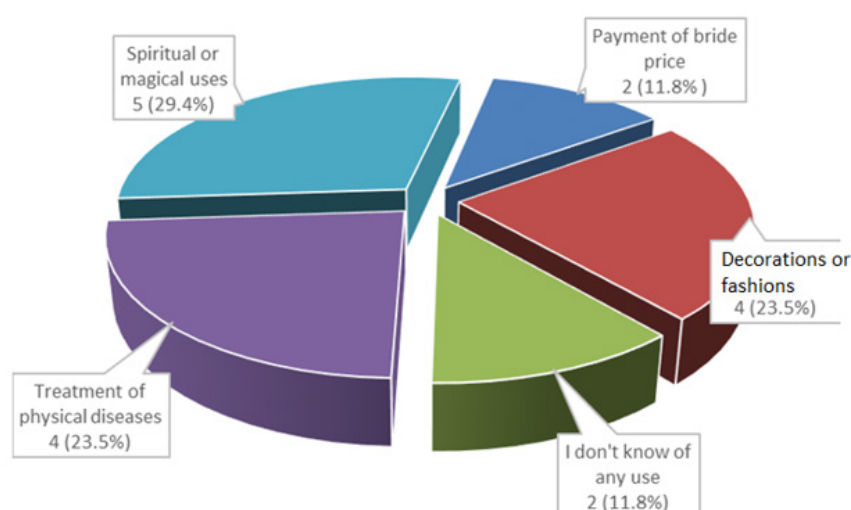


Figure 1: General uses of cowries by clients of vendors.

Spiritual uses of cowries

Table 4 shows the spiritual or mystical purposes the traditional medicine vendors indicate their clients' cowries for. The uses include divination which involves mixing the cowries with old

coins. Others use them to make other people obey their command by mixing the cowries with roots of plants and colourful thread followed by incantations indicating the name of the person to be charmed and what is requested of the charmed persons. Other

charms are prepared by mixing the cowries with horse or donkey or cow tails followed by the incantation. Some clients, according to the vendors, use the cowries to make bracelets or waist talismans for self-protection or protection of their children against evil

intentions or spirits. Some clients also use cowries for protection against gunshots, as well as against theft of their farm produce. Nightmares in children are stopped by the wearing of bracelets or body hangings made of cowries.

Table 4: The spiritual or mystical uses of cowries.

Spiritual Use	Method of Preparation and Use
Diagnosing spiritual problems (Divination)	Diviners mix the cowries with old coins
Charming others to obey your command	Cowries are mixed with other elements such as roots and colourful thread, followed by incantations
	The cowries are added to the horse/donkey/cow tail to perform the incantation rites
Spiritual protection against evil forces	Cowries made into bracelets with incantations
	Thread passed through 3 cowries for a male child and 4 cowries for a female child and tied around the waist
Protection of one's money from disappearing	Cowries mixed together with money
Protection against gunshots	Body hanging made of cowries worn on the body including the waist.
Zakat (Almsgiving)	Representing money
Protection of farm property	Tie a string around cowries followed by an appropriate incantation
Treating nightmares	Cowries made into bracelets and worn by children suffering the mares

Medicinal uses of cowries

The traditional medicine vendors also indicated the medicinal uses of cowries (Table 5). Cowries burnt into ashes and ground into powder are applied on the skin for the management of ringworm

and skin rashes. In situations of abdominal pains or upset, a mixture of lemon fruits, cowries and salt are able to resolve the discomfort. For clients who are worried about the late closure of the fontanelle of their newborns, cowries made into a necklace for these newborns are used to resolve the disorder.

Table 5: Medicinal use of cowries by clients of traditional medicine vendors.

Medicinal Use	Method of Preparation and Use
Ringworm	Burnt into ashes, ground into powder, and applied topically at the affected part
Rashes	Burnt into ashes, ground into powder, and applied topically at the affected part
Stomach upsets/pain	Squeeze lemon fruits onto seven cowries and add some salt and preparation taken orally threes daily
Closure of fontanelle of newborns	Cowries are tied with a black thread and hanged around the neck of the newborn

Cowries for decorations and fashion

Cowries were used for various decorative purposes as shown in Figure 2. The top three decorative uses of cowries were their use

as hair accessories, 6(27.3%), making of necklaces, 5(21.7%), and decorating footwear; 4(18.2%). The use of cowries for the making of hats, shirt buttons, and room decorations were the least recorded, 1(4.5%).

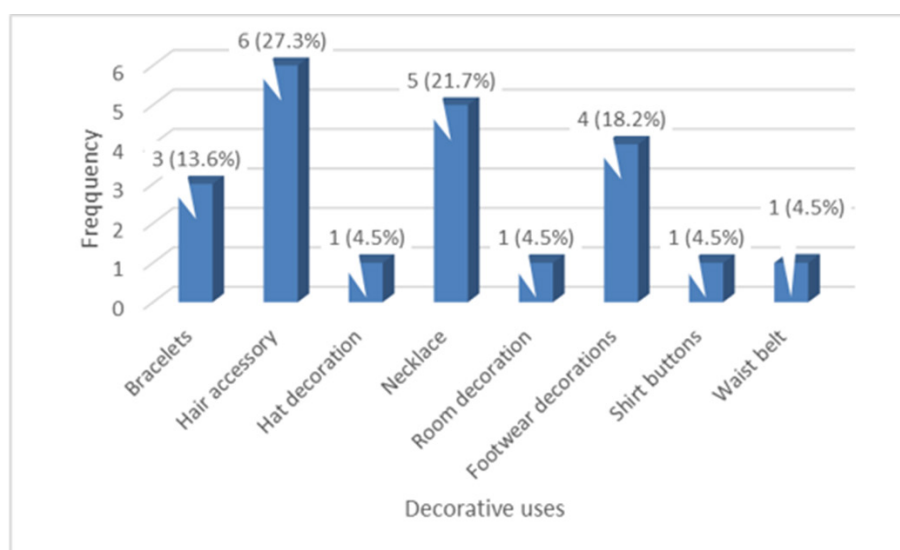


Figure 2: Various roles of cowries in decoration and fashion.

Discussion

Although women play some roles in traditional medicine in Africa, the trade and practice are a male-dominated enterprise and it is corroborated by this study in which all the vendors of these traditional medicines are males [12,13]. More than half of the respondents in this study were above 39 years which is similar to results from the study by Agbor and Naidoo [13] in which most traditional healers were above 40 years. In this study, equal numbers of persons had traded in traditional medicines for less than 10 years and also for more than 20 years. This bodes well for the continuation of this health service provision since as some vendors exit the trade due to death or ill health, younger ones are venturing into this trade to take their place. For all the traditional medicine vendors to have cowries among their wares shows that they have a good market base. The introduction of the two Indo-Pacific cowrie shells *Monetaria moneta* and *Monetaria annulus* in West Africa as currency for the exchange of goods and services may have started around the year 1515 although this use was reported in China as far back as the seventh century BC [1]. The disuse of cowries began when the French in 1907 banned its use as a currency but it was in the 1940s when its monetary role ended in West Africa [5,14]. The majority of the local names of cowries such as Farinkudi, Sika fitaa, Lapiela, etc found in this study which literally means white money also re-enforces the role of these cowries as money in the olden days hence not surprising that all the Traditional Medicine Vendors (TMV) in this study during the assessment of their knowledge about cowries knew that cowries were once used as currency. The overall knowledge of the traditional medicine sellers about cowries can be considered to be good (67.1%).

Although more than three-fourth (78.6%) of respondents were aware that cowries are sourced from water and a lower score of 71.0% was recorded on cowries being mined from the sea, there was a deficit in their knowledge about cowries being animals (42.0%) which means some more education on this animal ware will be required. Up to almost a third (29.4%) of vendors cited spiritual or magical purposes as the most important roles that their clients say cowries are used for although some others would buy the cowries for the treatment of physical diseases (23.5%) as well as fashion and decoration (23.5%). Just as in this study, cowries were reportedly used for divination in Dakar, Senegal; Yorubaland in Nigeria, and among various cultures in Southern Africa [4,8,9,15]. Besides divination, cowries in this study are added to other items and used for other spiritual or magical purposes such as protection of oneself against evil forces and gunshots as well as protection of one's property such as farm and money against theft. Nomadic people in Iran are also reported to use shells to magically protect themselves and bring them good luck [16]. Also, in Brazil, cowries are also used for various spiritual purposes [17]. The protective role of cowrie amulets worn on parts of the body as shown in this study was also found among people of ancient Egypt and Nigeria [4,7,15]. This study also reported some medicinal use of the cowries mainly for the treatment of skin conditions that require them to be burnt, powdered, and applied to the affected parts of the body. If the cowries are effective against ringworm, it means

they should have some antifungal constituents. Chemical analysis of a cowrie species *Cypraea samplometa* by Oloyede [2] found the presence of various minerals and secondary metabolites such as alkaloids, tannins, and glycosides which could be responsible for their medicinal usage. However, the method of preparation that involved burning can possibly destroy these phytochemical compounds hence the need for proximate analysis of burnt and powdered samples of the species of cowries in the Ghanaian traditional medicine market. The use of cowries for the adornment of garments, hair, and other wears had also been recorded in this study as shown in Figures 3-6, which are pictures of such materials being sold at the artifact shops at the Centre for National Culture in Tamale, Northern Ghana. Several other studies also reported the use of cowries for decorations of homes, musical instruments, clothing, and hair among other adornments [4,6,15]. There will be the need to conduct a nationwide survey since the results of this study cannot be generalized as the situation in the whole of Ghana [18].



Figure 3: Cowries used in making a bracelet.



Figure 4: Part of footwear made of cowries.



Figure 5: A headgear designed with cowries.



Figure 6: Necklace partly made of cowries.

Conclusion

Although cowries are no more used as currency, there are being sold by traditional medicine vendors because persons in northern Ghana continue to use them for spiritual and medicinal purposes besides their roles as decorative motifs. Their medicinal use for skin conditions requires some further investigations to validate them or otherwise. The TMVs generally have good knowledge about cowries but being deficient about cowries being an animal means that some increased education will be helpful.

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