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Effect of shea butter (*Vitellaria paradoxa*) in the treatment of cough in some communities of Awka town

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Abstract

The targeted population of this study was Artisans, Farmers, Traders, and Civil servants residents in Awka. A total of 250 questionnaires were distributed in markets, motor parks, and major streets. The questionnaires were administered in English, Igbo, and Vernacular depending on the level of understanding of the respondents. Data collected were presented in tables and were analysed by percentage. The result showed that the highest number of questionnaires sixty (60) was retrieved from Ifíte and the least (44) from Okpuno village. The highest age brackets of respondents who use shea butter for the treatment of cough was obtained in Amaenyi (31-40 years old) with 41.11% respondents while the least occurred in Okpuno (71-80 years old) having 2.48%. The respondent's source of knowledge is through friends and relatives having the highest (83.3%) while the least is through newspapers and pamphlets (13.4%). Respondents in Amansea frequently use shea butter in the treatment of cough (57.50%). Data collected from the respondents showed that infusions and mixtures are very efficient in the treatment of cough using shea butter. Unawareness of the efficacy of shea butter or doubtfulness may be a factor as to why respondents never used or rarely used shea butter for the treatment of cough. The indigenous knowledge of people on the application of plant species and/or plant materials for treatment of ailments should be preserved so that there will be transferred of this knowledge from one generation to another.

Keywords: Effect, shea butter (*Vitellaria paradoxa*), treatment, cough

Introduction

Shea butter is an oleaginous substance obtained from the kernel of the shea nut tree (*Vitellaria paradoxa*). "According to study, shea butter is a vegetable fat made from the kernels of the fruit of *V. paradoxa*, which belongs to the Sapotaceae family" (Schreckenber, 2004) [35]. "Some others classified shea butter as a yellowish-grey solid material extracted as fat from the kernels of the shea nut fruit" (Abdul-Mumeen *et al.*, 2013) [1] or "yellowish-white with a strong odor" (Abdul-Mumeen *et al.*, 2013) [1]. (Tessy, 1992) [38]. Shea butter is an unprocessed raw butter derived from shea kernels. Shea butter is as good as table oil because of its high nutritional content and low cholesterol levels; it is widely used locally for curing leprosy and other illnesses, and it has a variety of industrial applications, including soap production, cosmetics, lubricants, and paints." 2007b (Olaniyan and Oje). "Shea butter is ideal for use as a raw material for cooking oil, margarine, cosmetics, soap, detergents, and candles because it contains both solid fat (stearin) and liquid oil (olein)" (Russo and Ethrington, 2001) [34]. "Shea butter is widely used in the food, pharmaceutical, and cosmetic industries, and is frequently used as a cocoa butter substitute, as well as in margarine and baking by chocolate manufacturers" (Hall *et al.*, 1996) [11]. "100% pure natural shea butter is an all-natural vitamin A cream that has proven to be a superb moisturizer with extraordinary skin healing capabilities," according to the American Shea Butter Institute (ASBI). (According to ASBI, 2004). "Dry skin, skin rash, skin peeling after tanning, blemishes and wrinkles, itching skin, sunburn, shaving cream for a smooth silky shave, small skin wounds, skin cracks, tough or rough skin, cold weather, frostbites, stretch mark prevention during pregnancy, insect bites, healthy skin, muscle fatigue, aches and tension, and skin allergies such as psoriasis." "kpakahili" in Dagbani, "trauma" in Wali, "to" in Twi, "Kade" or "katana" in Hausa, "Okuma" in Igbo, "or" in Yoruba, "karite" in Senegalese Wolof, and many more" (Goreja, W.G, 2004) [10]. From Senegal in the west to Sudan in the east, and into the Ethiopian highlands' foothills, the shea tree grows wild in West Africa's arid savannah region." K. Newman, K. Newman, K.

Newman, K. Newman, K. New "Among the nations affected are Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Ethiopia, Eritrea, Ghana, Guinea Bissau, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sierra Leone, South Sudan, Togo, Uganda, DRC, Kenya, and Guinea" (Chalfin and Goreja, 2004) [10]. "In the wild, shea trees can grow to be 9-12 meters (30-40 feet) tall and produce commercial quantities of fruit after 20 to 50 years." (Raise, 2002; Tella, 1979) [31, 37]. Shea trees can only produce shea nuts for about 200 years. In total, Africa's wild shea trees can generate around 1 million tons of shea nuts annually. Ghana is known to have about 94 million shea nuts.

In Northern Ghana, the shea butter production is carried out by the *Vitellaria* species. It makes up about 80% of the area's woody vegetation. Shea butter, or shea butter, has become a central product in the new global economy and is known to play a significant role in the alleviation of poverty in Northern Ghana.

In 1996, Ghana sold over 21,500 tons of shea nuts for \$4,484,600 US dollars. In the following year, the country's shea butter export projections reached 2,000 metric tons.

From 1996 to 2013, the shea kernel export volume reached a record high of about 180,000 metric tons. In 2013, the shea butter export reached a record high of about 40,000 metric tons.

Shea kernels, which are the main product of the shea plant, are more popular among the exportees.

Raw shea butter can be obtained from the fruit kernel without any processing or refinement. This type of butter can be eaten raw without any chemical or physical processing.

The purpose of this study is to determine the efficacy of shea butter in treating cough in communities in the Awka metropolitan area of the Anambra state.

The study aims to determine the effectiveness of shea butter in treating cough in the area. It also aims to determine the frequency and preparation of shea butter sessions. The study relied on original data collected through multiple questionnaires. The questions had open-ended and closed-ended sections. Participants were then chosen randomly.

Each participant was asked to describe the study's goals and gave their verbal agreement.

The quantitative data collected by the questionnaires were used to measure the participants' level of understanding. The respondents were asked about their socioeconomic status, frequency of use of shea butter, and the effectiveness of the therapy.

The survey was conducted in four villages located in Awka town. Consent was obtained from the respondents before the oral interview was conducted.

Four villages were visited during the course of the study. A total of 250 consenting individuals were interviewed in the villages. The participants were asked about the use of shea butter for cough treatment.

The SPSS version 21 package was used to examine the data, which was displayed in tables and analyzed by percentage.

References

- Abdul-Mumeen I, Zakpaa HD, Mills-Robertson FC. Biochemical and microbiological analysis of shea nut cake: A waste product from shea butter processing. *Journal of Agricultural Biotechnology and Sustainable Development*. 2013;5(4):61-68.
- Alander J. Shea Butter- a multifunctional ingredient for food and cosmetic. *Lipid Technology*. 2004;16(9):202-205.
- Apea OB, Larbi E. Indigenous Technology and Scientific Research as Ingredients for Economic Development: A Case of Shea Butter Industry. *Journal of Contemporary Integrative Ideas*. 2013;1(1):16-26.
- ASBI. Twenty-one reasons to use shea butter. The American Shea Butter Institute, 2004.
- Carette C, Malotaux M, Van leeuwan M, Tolkamp M. Shea nut and butter in Ghana, opportunities and constraints for local processing, 2009.
- Chalfin B. *The Shea Butter Republic*. Routledge. New York, NY. Intro, Chapter 1, 2004.
- Didia B, Zakpaa HD, Mills-Robertson FC, Iddrisu AM. Enzyme assisted traditional extraction of shea butter using different levels of pre-treated shea kernels. *Journal of Agricultural Biotechnology and Sustainable Development*. 2018;10(1):1-10.
- Enwonwu CO. Global Trends in the Use of Complementary Medicine. Proceedings of the 2nd Dr David Barmes' Memorial Public Health Symposium, 25th March 2003, Organised by the Regional Center for Oral Health Research and Training for Africa, Jos in Collaboration with WHO Regional Office, Brazzaville, 2003.
- Food and Agriculture Organization (FAO). Small-scale Palm Oil Processing in Africa. *Agricultural Services Bulletin* 148. Rome: FAO Ghana Export Promotion Authority (GEPA), 2014.
- Goreja WG. Shea Butter: The Nourishing Properties of Africa's Best- Kept Natural Beauty Secret. TNC International, 2004, 5.
- Hall J, Aebischer D, Tomlinson H, Osei-Amaning E, Hindle J. *Vitellaria paradoxa*: a monograph. School of Agriculture and Forest Sciences publication number 8. University of Wales, Bangor, Wales, 1996.
- Holanda Pinto SA, Pinto LMS, Cuana MH, Santos FA, Rao VS. Anti-inflammatory Effect of Amyrin, a Pentacyclic Triterpene from *Protium heptaphyllum* in Rat Model of Acute Periodontitis. *Inflammopharmacology*. 2008;16:48-52.
- Ikyia JK, Umenger A, Lorbee A. Effects of extraction method on the yield and quality characteristics of oils from Shea nuts. *Journal of Food Resource Science*. 2013;2(1):1-12.
- Iroka CF. The use of medicinal plants in herbal medicine and its implications (A review). *Even J Folklore Med*. 2016;2(1):35-41.
- Kraft JN, Lynde CW. Moisturizers: What They Are and a Practical Approach to Product Selection. *Skin Therapy Letter*. 2005;10:1-8.
- Lipp M, Anklam E. Review on Cocoa Butter and Alternative Fats for Use in Chocolate-Part A. *Compositional Data Food and Chemistry*. 1998;62:73-97.
- Lovett PN, Haq N. Evidence for anthropic selection of the shea nut tree (*Stellaria paradox*). *Agroforestry Systems*. 2000, 48(3).
- Lovett PN. Opening Bottlenecks in the African Shea Butter Industry. Reports prepared for Enterprise Works Worldwide, under the supervision of Steev Lynn and Ed Perry with funding from USAID, 2004.
- Lovett PN. Shea butter export guide, USAID WATH, 2005.
- Masters ET, Yidana JA, Lovett PN. Reinforcing Sound Management through Trade: Shea Tree Products in Africa. *Unasylva*. 2004;210:46-52.
- Mohammed S, Heijndermans E, Butter S, Group P.

- Behind the Butter: an energy analysis of shea butter processing. SNV Ghana, 2013.
22. Moharram H, Ray J, Ozbas S, Juliani H, Simon J. Shea Butter: Chemistry, Quality and new market potentials (Wang M, Shengnim S, Hwang LS, Ho CT. 2006). *Challenges in Chemistry and Biology of Herbal Research*. American Chemical Society. Washington DC. The USA. Ch. 2006;25:326-340.
 23. Nikiema JB, Vanhaelen-Fastre R, Vanhaelen M, Fontaine J, De Graef C, Heenen M. Effect of Anti-inflammatory Triterpenes Isolated from *Leptadenia hastata* Latex on Keratinocyte Proliferation. *Phytother. Res.* 2001;15:131-134.
 24. Ofosu MA. Anaerobic Digestion of Shea Waste for Energy Generation. PhD Thesis submitted to the University of Cape Coast, Cape Coast, 2009.
 25. Okafor JC. Tropical plants in health care delivery in Nigeria. Review of health care services in Africa. Book builders publishers, Bodija, Ibadan, 2013, 11-20.
 26. Okigbo RN, Ezeaku CE. Efficacy of Three Tropical Plants for the Inhibition of Pathogens Causing Human Diarrhoea. *Cient periodique microbiology.* 2018;1(4):01-26.
 27. Olaniyan AM, Oje K. Development of mechanical expression rig for dry extraction of shea butter from shea kernel. *Journal of Food Science and Technology.* 2007a;44:465-470.
 28. Olaniyan AM, Oje K. Quality characteristics of shea butter recovered from shea kernel through the dry extraction process. *Journal of Food Science and Technology.* 2007b;44(4):404-407.
 29. Pedernera AM, Guardia T, Calderon CEG, Rotelli AE, de la Rocha NE, Saad JR, *et al.* Anti-inflammatory Effect of Acacia Visco extracts in animal models. *Inflammopharmacol.* 2010;18:253-260.
 30. Petworth. Artful Teasing Guide to the Benefits of Shea Butter, 2015.
 31. RAISE. Market and Technical Survey: Shea Nuts, 2002.
 32. Rogers S, Olenick Jr. A. Shea Butter Esters. United States Patent (US 7182940 B1), 2007.
 33. Rogers S, Olenick Jr. A. Shea Butter Alkoxyates. United State Patent (US 7544824 B2), 2009.
 34. Russo L, Ethrington T. Non-wood news. *An Information Bulletin on Non-Wood Forest Product.* 2001;8:38-39.
 35. Schreckenber K. The contribution of Shea butter (*Vitellaria paradoxa* C.F. Gaertner) to local livelihoods in Benin. In Sunderland T, Ndoye O (eds) *Forest Products, Livelihoods and Conservation Vol.2.* Indonesia: Indonesia Printer, 2004, 91-113.
 36. Steiger DL, Nagai C, Moore PH, Morden CW, Osgood RV, Ming R. AFLP analysis of genetic diversity within and among *Coffea Arabica* cultivars. *Theor Appl Genet.* 2002;105:209-215.
 37. Tella BR. Preliminary studies on nasal decongestant activity from the seed of shea butter tree. 1979;7(5):495-497.
 38. Tessy E. Food Technology Booklets-African Edition. ITDG Publication, 1992.
 39. Ukers WH. All about Coffee. The Tea and Coffee Trade Journal Company. New York, NY Ch.20, 1922.
 40. Velasco MVR, Sarruf FD, Salgado-Santos IMN, Haroutiounian-Filho CA, Kaneko TM, Baby AR. Broad Spectrum Bioactive Sunscreen. *Int J Pharm.* 2008;363:50-57.
 41. Wiedner MS. Novel Composition Containing Extracts of *Butyrospermum Parkii* and the Use of Such a Composition for Preparing a Medicament or a Dietary Supplement for the Treatment or Prevention of Inflammation Hypersensitivity or Pain. The United States Patent Application Publication (US 2008/0124413 A1), 2008.