

Utilization of traditional medicine in the treatment of ailments among aged people in Ughelli community of Delta State

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International Journal of Science and Technology Research Archive, 2021, 01(02), 001–009

Publication history: Received on 20 May 2021; revised on 13 July 2021; accepted on 15 July 2021

Article DOI: <https://doi.org/10.53771/ijstra.2021.1.2.0017>

Abstract

Traditional, complementary and alternative medicine (TCAM) refers to a set of healthcare practices (indigenous or imported) that are delivered outside of the mainstream (orthodox) healthcare system. The broad objective of this study was to investigate the use of traditional medicine in the treatment of ailments among aged people in Ughelli Community of Delta State, Nigeria. The study comprised of 241 subjects (121 males and 120 females) of about 40+ years who were resident in Ughelli community. First, a self-administered, open and close questionnaire was carefully structured, validated and issued to a cross section of selected subjects from within the study area. The instrument obtained the socio-demographic records of the subjects, alongside their knowledge on traditional medicine, attitudes towards, as well as practices towards traditional medicine. Information on the source, benefit, adverse effects and frequently used traditional medicines were also collected from participants, while leaving them with multiple responses in the open-ended questions. Following data collection, Results were subjected through the Statistical Package for Social Sciences (SPSS version 25), using the Chi-square test at a 95% confidence interval. One-way analysis of variance (ANOVA) was also used to compare the differences in means between groups, while setting a p value less than 0.05 as statistically significant. From our observation, an average of 98 subjects strongly agreed to their knowledge of the effectiveness of traditional medicines in the treatments of ailments. This number was of significant increase in comparison with about 76 subjects who were not sure in their response on the effectiveness of traditional medicines over orthodox in the study area. In addition, this negates the total number of sampled respondents (15%) who posited to disagree in support of the non-effectiveness of traditional medicines over its effectiveness. Also, a great percentage (36%) responses agreed that drinking is a far effecting and popular route of administering traditional medicines than others, while about 27% strongly agreed to this; even though a greater proportion of responses were not sure of the topical routes of applying traditional medicines.

Keywords: Traditional Medicine; Knowledge; Attitudes; Orthodox Medicine

1. Introduction

Traditional, complementary and alternative medicine (TCAM) refers to a set of healthcare practices (indigenous or imported) that are delivered outside of the mainstream healthcare system [1, 2]. All cultures have a tie bound traditions of using herbs to promote healing and plants remain the basis for the development of modern drugs. Medicinal plants have been used for many years and in daily life to treat diseases all over the world [3]. In the African setting it may encompass local herbal medicines or products, indigenous healthcare practices (traditional bone setting), as well as imported complementary and alternative medicine products and practices (eg, acupuncture or chiropractic). Practices of traditional medicine vary greatly from country to country and from region to region, as they are influenced by factors such as culture, history, personal attitude and philosophy. In many cases, their theory and application are quite different from those of conventional medicine [4].

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Traditional medicine has been used by the majority of the world population for thousands of years (Seifu, 2004). The World Health Organization (WHO) reported that an estimated 80 % of the population in developing countries depend on traditionally used medicinal plants for their primary health care [5]. Herbal medicines in this case are defined as plant-derived material and preparations perceived to have therapeutic benefits, containing raw or processed ingredients from one or more plants, and include herbs, herbal materials, herbal preparations, and finished herbal products that contain parts of plants or other plant materials as actual ingredients [6].

Traditional medicine (TM) essentially represents a natural form of health care which has been used through generations. It is a practice derived from the values and perception of the members of the community [7]. This is a practice that goes beyond the maintenance of good health of the populace as it also protects the people from the menace of wild animals, evil spirits, motor accidents, bountiful harvests and other human activities [8]. Traditional medicine is an evolutionary process as individuals and communities continue to discover new techniques that can transform practice in the field of medicinal sciences [9]. Traditional medicine and drug discovery using natural products is still an important issue in the current target-rich lead-poor scenario [10].

In Nigeria, the use of conventional nutritional supplements and alternative medicine mostly in the form of herbal products is estimated at about 31.9% [11]. The increased uses of herbal medicine are thought to include accessibility, affordability, perceived safety and therapeutic recommendation potential for treating many diseases [12]. Hence, human health becomes the central point of the high use of herbal medicine [13]. Self-treating illnesses often use “agbo” and herbal bitters (HB) in Nigeria. Previous studies have reported the use of herbal medicine among Nigerians different socio-economic status [10, 14]. Student in tertiary institutions has been implicated in self-treating illnesses with prescription and nonprescription drugs including herbal products especially those that have enjoyed increased direct to customers (DTC) advertisement such as herbal supplements and HB [15].

Herbal medicine has become a popular form of healthcare; even though several differences exist between herbal and conventional pharmacological treatments, herbal medicine needs to be tested for efficacy using conventional trial methodology and several specific herbal extracts have been demonstrated to be efficacious for specific conditions [16]. Nevertheless, the public is often misled to believe that all-natural treatments are inherently safe, herbal medicines do carry risks, so research in this area must be intensified. Although there have been several studies on the use of traditional medicine in treatment of ailments in various parts of Nigeria and different communities, there is a dearth of literature on the use of traditional medicine in treatment of ailments among aged people in Ughelli community. Hence, this necessitated the need to carry out this study.

Aim of Study

This study determined the use of traditional medicine in the treatment of ailments among aged people in Ughelli Community of Delta State, Nigeria. Specifically, the study;

- Ascertained the knowledge and attitudes of subjects towards traditional medicine use.
- Determined participants’ practices to the use of traditional medicine.
- Evaluated the relationship between socio-demographic data and the practice of traditional medicine.
- Compare the findings of this study to previous reports.

2. Material and methods

2.1. Research Design

The study adopted a cross-sectional design to investigate the use of traditional medicine in the treatment of ailments among aged people. The choice of design is guided by its ease of access to various characteristics of the population of interest, thus aiding in the drawing of a representative sample that will enable one to assess the levels of knowledge as well as attitudes of subjects towards traditional medicine use. The design was chosen because the study involves collecting and analysing data from people within the sample (Cross section) considered representative of the entire population.

2.2. Study Area

The study was carried out in Ughelli, Delta State. Ughelli is a town in Delta State, Southern Nigeria. The city of Ughelli is located in Ughelli North Local Government Area and is predominated by the Urhobo ethnic nationals.

2.3. Population of Study

The study was undertaken in ten (10) randomly selected communities from six (6) major clans of Ughelli North Local Government Area of Delta State. Most importantly, to avoid any form of bias, all six clans were canvassed without exception. The study communities were predominantly rural.

2.4. Sample and Sampling technique

Using the number of communities in each clan as a proportion of the whole, a fair estimate of the number of communities to be canvassed was inferred. Altogether, the ten (10) communities randomly selected constitute the sample area where respondents were interviewed. In all, a total of 241 subjects comprising of 121 males and 120 females of about 40+ years were interviewed. Using the number of selected communities in each clan, questionnaires were allocated proportionately to the number of communities across all visited towns.

2.5. Determination of Sample Size

The sample size was determined by using a sample size calculator on the internet developed by Creative Research System, 2012. In this regard, at a confidence level of 95% and a ± 10 confidence interval, a projected local government population of 406,203 persons were entered into the calculator. Sample size needed for this study returned 186 respondents (at least). However, 241 respondents were used for reason of getting wider coverage.

2.6. Data Collection

Data collection was made possible with the aid of a self-administered questionnaire, which comprised of the following sections;

- Section A: Socio demographic Characteristics of Respondents
- Section B: Knowledge of the study subjects on traditional medicine
- Section C: Attitude of participants of the study towards traditional medicine
- Section D: Practice of the study subjects on traditional medicine

The questions asked were both open and close-ended. The open-ended question was used to obtain information on the source, benefit, and adverse effect, as well as the name of traditional medicine used. It also allowed participants to give multiple responses to the open-ended questions. Data was collected through survey method. By this, questionnaires were administered to members Ughelli North Local Government Area to facilitate the collection of primary data. Direct interview was also granted to complete the forms where eligible respondents lacked expected literacy. Also, direct observation was used in guiding respondents on how to fill the forms or questionnaire to enhance data collection.

2.7. Inclusion Criteria

- Individuals who are resident in Ughelli community and are willing to participate. Non-resident of the selected communities were exempted from the study.
- Individuals aged 40 years and above. Participants who were less than 40 years were also excluded from the study.

2.8. Ethical Clearance

Ethical approval was sourced from the Department of Public and Community Health, Novena University, Ogume, and the researcher met with respondents with a signed consent letter, which was designed to seek their informed consent before investigation proper.

2.9. Analytical Approach

Data collected from the field were presented with frequency tables. The two sections of the questionnaire were analysed using IBM Statistical Package for the Social Sciences (SPSS) version 20; a modern computer based statistical tool widely employed by researchers to handle research and statistical based problems. One-way analysis of variance (ANOVA) was used to compare the differences in means between groups, while setting any p-value less than 0.05 as statistically significant.

3. Results

From figure 1, a total of 221 sampled respondents were of the male gender, while 120 of the total (241 participants) belonged to the female gender. This accounts for 50.2% and 49.7% each of the total participant male and female subjects respectively.

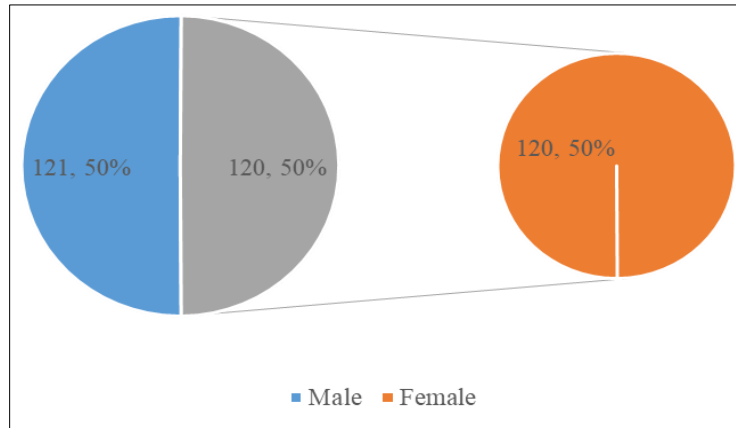


Figure 1 Summary of socio-demographic records of sampled subjects by gender

Figure 2 shows the socio-demographic characteristics of sampled subjects by Age. From the chart, about 88 (37%) of the total sampled respondents (241) were of the age brackets of 20-39 years, with 73 (30%), 54 (22%) and 26 (11%) being in the brackets of 40-50 years, 51-60 years and 61-70 years respectively.

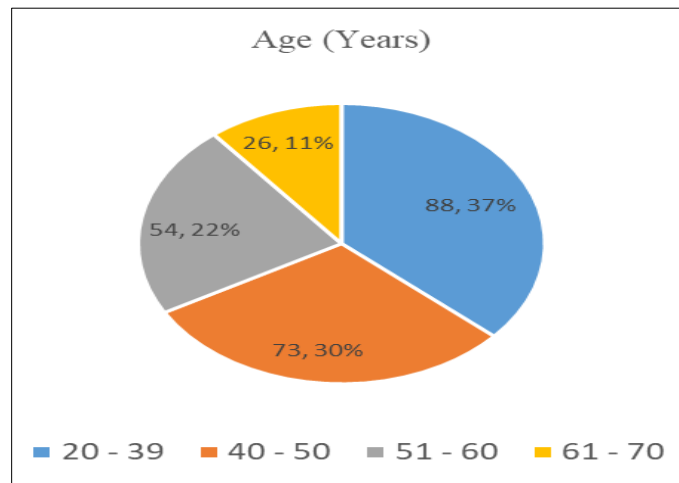


Figure 2 Socio-demographic records of sampled subjects by age

From figure 3, the socio-demographic properties of sampled subjects by marital status is seen to be about 103 (43%) singles (not married) of the total sampled respondents (241, 100%) while notably proving to be 91 (38%), 31 (13%) and 16 (6%) for married, divorced and widowed participants respectively.

Figure 4 shows the socio-demographic distribution of sampled subjects by Educational Status. From the chart, about 76 (31%) of the total sampled respondents (241, 100%) had their primary school education, while about 91 (38%) and 74 (31%) had secondary and tertiary education respectively.

From figure 5, the socio-demographic properties of sampled subjects by religion is seen to be about 192 (80%) Christians of the total sampled respondents (241, 100%). Whereas, a notable 11 (4%), 38 (16%) and 0 (0%) of them belongs to the Islam, traditional and other faith respectively.

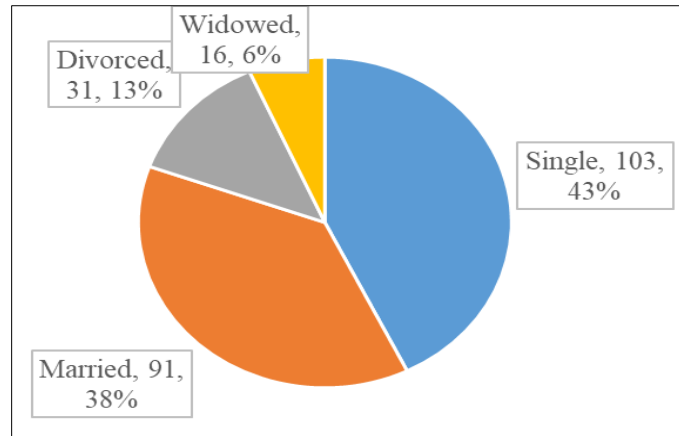


Figure 3 Socio-demographic characteristics of subjects by marital status

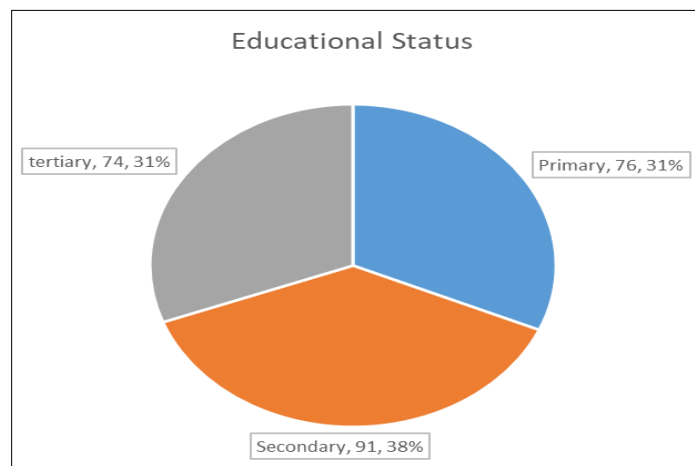


Figure 4 Socio-demographic characteristics of subjects by level of education

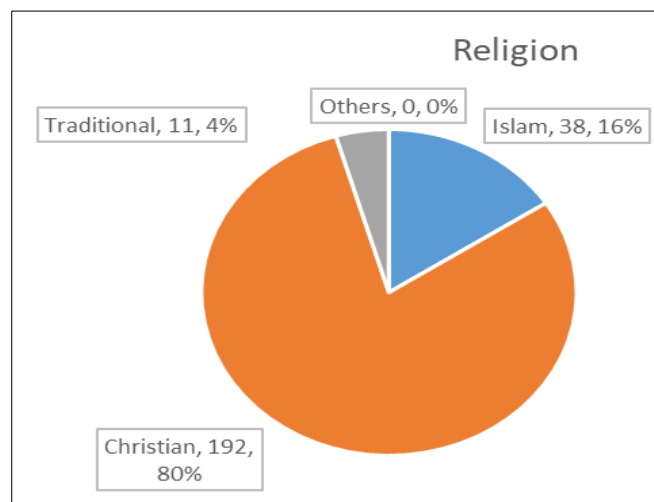
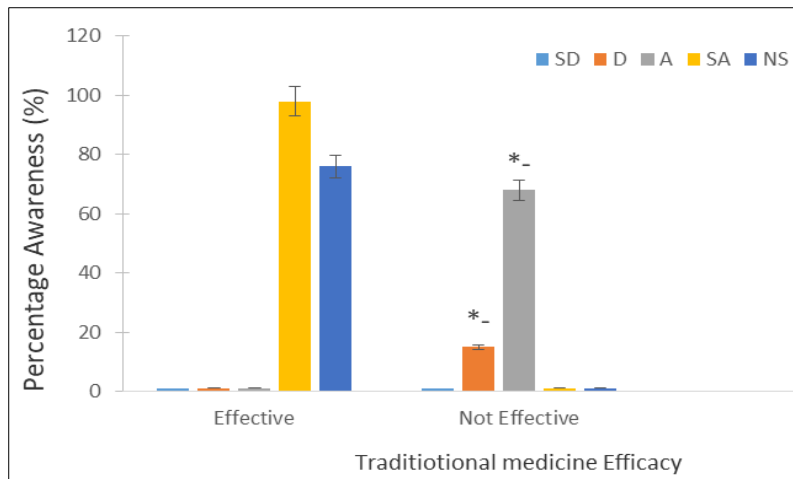
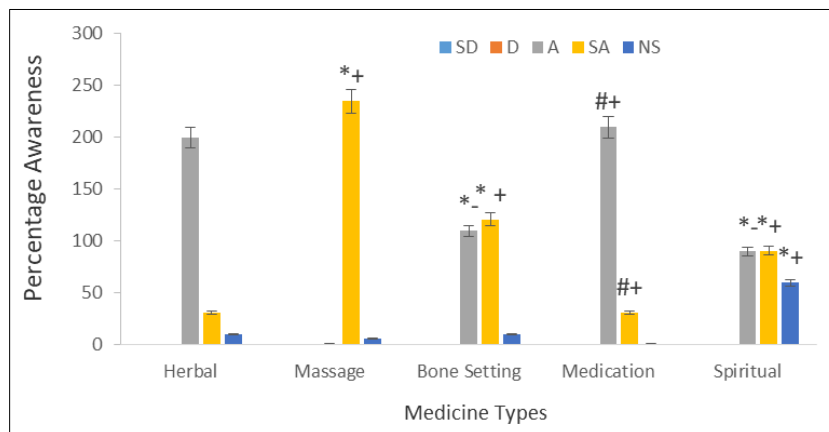


Figure 5 Socio-demographic characteristics of subjects by religious background



Key: SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree and NS = Not Sure. * = statistically significant ($p < 0.05$) for non-effective compared to Effectiveness of traditional medicine efficacy, - = decrease

Figure 6 Knowledge on the effectiveness of traditional medicine



Key: SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree and NS = Not Sure. *+ = statistically significant increase ($p < 0.05$) *- = Significant decrease, #+ = insignificant increase compared to Herbal type

Figure 7 Percentage awareness of traditional medicine types

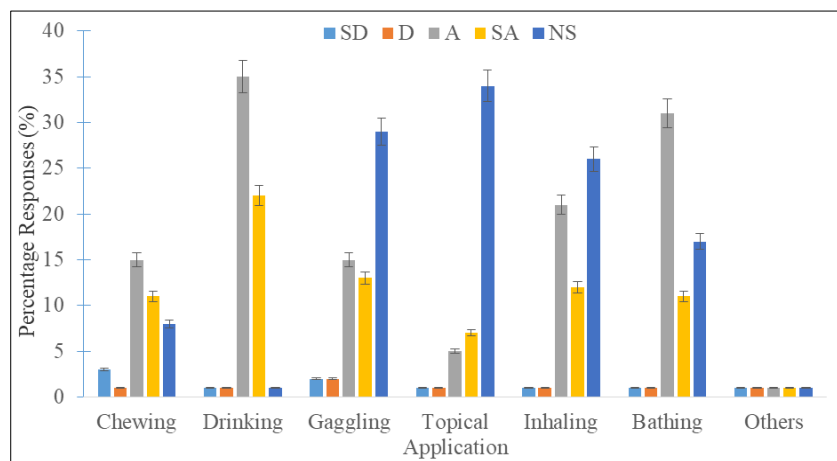


Figure 8 Knowledge on modes of administration of traditional medicines

4. Discussion

Traditional use of herbal medicines implies substantial historical use, and this is certainly true for many products that are available as traditional herbal medicines [17]. In many developing countries, a large proportion of the population relies on traditional practitioners and their armamentarium of medicinal plants in order to meet health care needs [18]. Although modern medicine may exist side-by-side with such traditional practice, herbal medicines have often maintained their popularity for historical and cultural reasons. In this study, the effects of traditional medicines in the treatment of ailments amongst people in Ughale community, Delta State was examined. A total of 241 participants comprising of 121 males and 120 females were ethically sampled from the study area. The subjects were then issued questionnaires to ascertain their knowledge and level of awareness relative to the topic under investigated. This happened shortly after their socio-demographic details were obtained.

A clear look at the results presented in figure 1 that of the total sampled 241 participants. About 121 of them were of the male gender, while 120 of them were noticeably of the female gender category. This accounts for 50.2% and 49.7% each of the total participant male and female subjects respectively. Again, figure 2 also shows the demographic information of sampled subjects according to age. Notable from the chart is that, a total of 88 (37%) of the 241 sampled respondents had their ages between the limits of 20-39 years, with about 73 (30%), 54 (22%) and 26 (11%) of them having their ages between the limits of 40-50 years, 51-60 years and 61-70 years respectively. On the basis of marital status, figure 3 reveals the socio-demographic properties of sampled subjects to be significantly higher in singles than non-married individuals, with about 103 (43%) of the selected participants showing to be singles (not married) amidst the total sampled respondents (241 of 100%) individuals; while notably proving to be 91 (38%), 31 (13%) and 16 (6%) for married, divorced and widowed participants respectively. Nonetheless, the educational levels of participant subjects seem different across groups and age limits in clear contradiction of what was expected. By this, the socio-demographic distribution of sampled subjects by educational status (as seen from 4) seems to be higher (tertiary) in male folks as opposed to their female counterparts. From the chart, about 76 (31%) of the total sampled respondents (241, 100%) apparently had their primary school education, while about 91 (38%) and 74 (31%) had secondary and tertiary education respectively. Judging by the religious faith of sampled respondents, socio-demographic distribution data of figure 5 shows that of the sampled subjects by religion, about 192 (80%) are seen to be of the Christian religion out of the total sampled respondents (241, 100%), with a notable 11 (4%), 38 (16%) and 0 (0%) of them belonging to the Islam, traditional and other faith respectively. This demographic report is significant because it is likely to influence and/or re-enforce peoples' opinion and decisions relative to the subject matter [19].

Nature has given a large source of medicinal agents from plants for the past thousands of years, an impressive number of modern drugs have been isolated from natural sources. Many of these isolations were based on the uses of the agents in traditional medicine. The plant-based, traditional medicine systems continues to play an essential role in health care, even though not many are conversant with it, with an estimated 80% of the world's inhabitants relying mainly on traditional medicines for their primary health care. In this study, the result of figure 6 details the level of knowledge and awareness of participant subjects on the effectiveness of traditional medicine as an alternative to orthodox medicine in the treatment of ailments. From the chart, an average of 98 subjects strongly agreed to their knowledge of the effectiveness of traditional medicines in the treatments of ailments. This number was of significant increase in comparison with the 76 subjects who asserted not sure (NS) in response to the effectiveness of traditional medicines across the study area. In addition, this negates the total number of sampled respondents (15%) who posited to disagree in support of the non-effectiveness of traditional medicines over its effectiveness.

Despite divergent opinion from our respondents, more countries have recently gradually come to accept the contribution that traditional and complementary medicine can make to the health and well-being of individuals and to the comprehensiveness of their health care systems. Governments and consumers are interested in more than herbal medicines and are now beginning to consider aspects of traditional and complementary medicine practices and whether they should be integrated into health service delivery [20].

Often time, medicinal plants are known to contain inherent active ingredients used to cure diseases [21]. The use of traditional medicines and medicinal plants in most cases as therapeutic agents for the maintenance of good health has been widely observed. Modern pharmacopoeia still contains at least 25% drugs derived from plants and many others, which are synthetic analogues, built on prototype compounds isolated from plants. Interest in medicinal plants as a re-emerging health aid has been fuelled by the rising costs of prescribing drugs in the maintenance of personal health and well-being and the bio-prospecting of new plant-derived drugs. The ongoing growing recognition of medicinal plants is due to several reasons, including escalating faith in herbal medicine [22]. Figure 7 of this study presents the percentage awareness of common traditional medicine types; herbal, massage, bone setting, medication and spiritual as selected from the questionnaire issued to our sampled respondents in the field. An obvious observation from the chart is the

statistically significant increase ($p < 0.05$) of responses received by massage over medication and others. This alarming response (strongly agree) was however counter-balanced with higher level of support (agree) in herbal over spiritual, bone setting and massage as an alternative type of traditional medicine. To further buttress this, according to the World Health Organization, traditional medicine would be the best source to obtain a variety of drugs. Therefore, such plants should be investigated to understand their properties, safety and efficacy [23].

Also in the course of data collection, current study also investigated the level of participants' awareness to the various available modes of administration of traditional medicines; chewing, drinking, gagging, inhaling, bathing, topical application and others. From our findings (figure 8), a great percentage of responses were of the view that drinking is a far effecting and popular route of administration of traditional medicines as compared to others. By this route, about 36% responses agreed in support with about 27% strongly agreeing to this notion. However, a greater proportion of responses were not sure (NS) of the topical routes of applying traditional medicines.

A large number of present modern drugs are from traditional medical knowledge. Experience of drugs like Artemisia, St. John's wort has boosted confidence among pharmaceuticals to establish the efficacy of other extensively used Traditional medicine/Complementary and Alternative Medicine (TCAM) therapies [24]. However recent reviews have shown that clinical trials in TCAM have been scanty and inadequately designed. The low level of research has slowed development of national standards and integration efforts. Currently, there is an increase in research on TCAM in Japan and China while in other countries research programs have been bare minimum. TCAM therapies and drugs can often be equated with modern surgical procedures without any rigorous clinical trials and are based on individual case reports of patient series. It is said that before randomized clinical trials are taken up, ethnographic, epidemiological, observational, survey and cohort methodologies are important for developing comprehensive research designs. Care should be exercised to be sensitive to the theoretical, clinical and cultural assumptions of the modality or system being evaluation in order to ensure that such research designs adequately measure what one thinks is being studied [13]. It is a welcome situation that in some countries, exemption is given to medicines with history of use to pass to the phase three clinical trials with preliminary toxicity studies.

5. Conclusion

Traditional medical knowledge is widely prevalent around the world and the larger public has integrated them for their various health needs. While continued community or public patronage is sustaining and even fostering their growth both in developing and developed countries, there exists a gap between public choice and national, institutional efforts for integration. High external resource use and technology orientation in development coupled with markets as major determinant of distribution is continuing to marginalize traditional medical cultures in the health systems. It is evident that any model of healthcare based on a single system of medicine will find it difficult to cope with the health care demands in near future. It is also obvious that traditional and cultural medical knowledge has a catalysing effect in meeting health sector development objectives and will continue to be so in both the worlds. But there exist major differences in the usage of Traditional medicine/Complementary and Alternative Medicine in developed and developing world. While safety is the prime concern in developed countries, access and cost seem to be issues in developing countries. Challenges and issues also seem to be quite different in the eyes of various stakeholders such as regulators, consumers, practitioners and the industry.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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