Does Age of Traditional Medicine Practitioners (TMP) Influence Formulation Type in Herbal Management of Memory Loss?

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ABSTRACT

Background: Traditional Medical Practitioners (TMPs) utilize plants in alleviation of many illnesses including memory loss. Majority of these practitioners acquired skills as apprentices for a long period of time from experienced practitioners or from their parents by family inheritance; therefore, most of them are advanced in age by the time they attain independence to practice on their own.

Objective: This study was designed to investigate if there was an association between the age of TMPs and type of formulation (monoherbal/polyherbal) in local management of memory loss.

Methods: A hundred TMPs (100 traditional healers and herb sellers) in areas of Lagos state were randomly selected and interviewed using a structured questionnaire. Information on age, sex, occupation, plants used, mode of administration and life forms of plants used were obtained. Number of respondents based on their age groups and the type of formulation they used to manage memory loss was obtained. These two variables were compared using Chi square statistical tool to measure their association and inferences were drawn from the results.

Results: 88% of all respondents used polyherbal formulations while 12% used monoherbal formulations. 37% of all the respondents were elderly practitioners and about 90% of them used polyherbal formulations. There was no significant association between age of TMP and type of formulation used (p d" 0.05).

Conclusion: This study shows that the age of TMPs does not affect their choice of type of formulations so far the recipe used is efficacious; they may use just a plant or combination of plants.

Keywords: Monoherbal, polyherbal, Traditional medicine.

INTRODUCTION

The use of plants for management of illnesses has been recorded since antiquity. The folkloric use of plants has been passed down from generation to generation orally and in written form [1]. TMPs acquired the knowledge of the use of plants in various ways. They were trained either by their parents or as apprentices of relations or experienced medicine men in their villages. When they gain independence to start their own practice, they are advanced in years and in Africa, this count as experience [2]. The knowledge they have garnered over the years influence their own practice and they treat their patients of various illnesses with the use of this information.

Plants have been used as remedy for memory loss. Yorubas call these plants " ogun isoye ". Some of these plants have been studied scientifically and investigated. Some active constituents have been isolated from these plants. Examples of these plants include the following plants: *Panax ginseng*, *Gingko biloba*, *Bacopa monnieri* and *Withania somnifera* [3].

TMPs may use a single plant (monoherbal) or combination of many plants (polyherbal) in the mitigation of symptoms of memory loss. However, a combination of herbs may cause a multiplier effect of synergism or a negative effect of serious adverse effects as shown in a recent study [4]. However, TMPs claim that side effects however, are mild to moderate. This study was designed to investigate if there was an association between the age of TMPs and type of formulation (monoherbal/ polyherbal) in local management of memory loss.

MATERIALS AND METHODS

Ethnobotanical Survey, Plant Collection, Identification and Authentication.

A hundred TMPs (traditional healers and herb sellers) in Agege, Ikorodu, Ketu, Ojota, Oyingbo,

Bariga, Somolu, Mushin and Oshodi areas which are in Agege, Kosofe, Lagos mainland, Mushin and Oshodi-Isolo Local Government areas of Lagos state were randomly selected and interviewed using a semi-structured questionnaire[3]. The questionnaire was in English language. Literate TMPs self administered the questionnaires while the non-literate respondents were interviewed in Yoruba language. Information on age, sex, occupation, level of education, plants used, mode of administration used was obtained. Token sum was paid to respondents for knowledge shared and time spent. Permission was taken from respondents to publish findings of the study. The plants obtained were collected from the wild by practitioners and authenticated by taxonomists at the Forestry Reserve Institute of Nigeria, Ibadan (FRIN) and University of Lagos herbarium (LUH), Department of Botany, University of Lagos. Voucher numbers were issued and specimens were deposited in the respective herbaria.

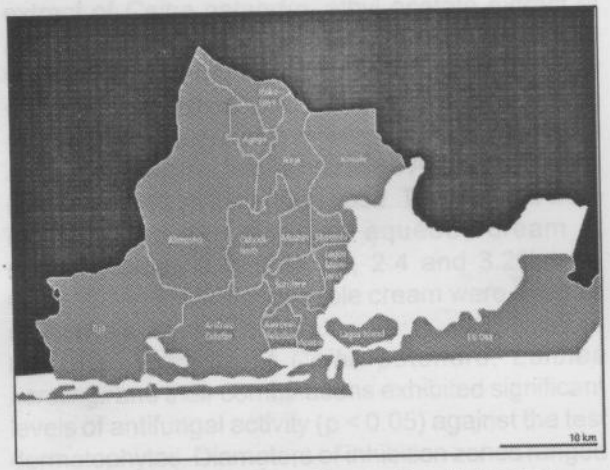

Figure 1: Map of Lagos state (Source: Google Images)

Statistical analysis

Number of respondents based on their age groups and the type of formulation they used to manage memory loss were obtained from the filled questionnaires. These two variables were compared using Graph Pad Prism 5 Chi-square statistical tool to measure their association at 95% level of significance and inferences were drawn from the results. Microsoft Excel was used to obtain bar charts comparing number of respondents versus age groups/ type of formulation.

RESULTS

Age Groups of TMP Vs Type of Formulation: Results are represented in Table 1.

Bar Chart of Number of Respondents Versus Age Groups/ Type of Formulation: This is represented in Figure 2.

TABLE 1: Age Groups of TMP Vs Type of Formulation

Age groups (years)	21 - 30	31 - 40	41 - 50	> 50	Total
Formulation Type					
Monoherbal	0	5	3	4	12
Polyherbal	1	23	31	33	88
Total	1	28	34	37	100

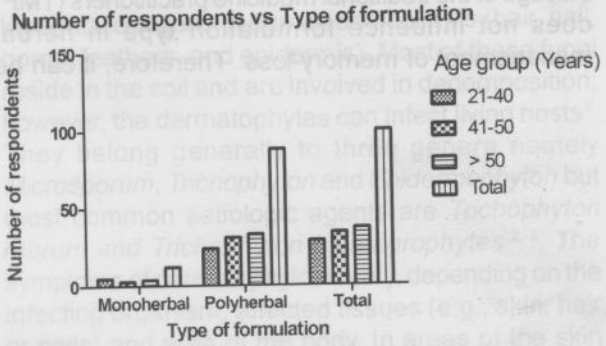

Figure 2: Bar Chart of Number of Respondents Versus Age Groups/ Type of Formulation

DISCUSSION

Based on the survey, 88% of all respondents used polyherbal formulations while 12% used monoherbal formulations. This showed that a large proportion of TMPs favoured the use of more than one plant in the local management of memory loss. About 90% of the respondents that were over 50 years of age preferred the use of more than one plant in managing this condition. Just over 90% of the respondents aged between 41 and 50 years preferred the use of more than one plant in the management of symptoms of memory loss. About 83% of the respondents aged between 21 and 40 years use more than one plant for the management of memory loss. All the age groups interviewed in this study, more of the respondents prefer polyherbal preparations in managing symptoms of memory loss.

For statistical analysis of the results, there was a need to merge two of the age groups (21-30 and 31-40) because no respondent in the 21-30 group preferred the use of monoherbal preparations. Analyzing it that way would have led to invalid results for the Chi-square test.

The results of the Chi-square showed that there was no significant association between the age of the TMP and choice of formulation (p d" 0.05). Hence, for this study, age was not a determinant of choice of monoherbal/polyherbal formulations. Rather, it may depend on the efficacy of the recipe used based on experience garnered over years.

CONCLUSION

Age of the TMP in the African society is a factor that builds confidence in the patient. This is due to the fact that the patients feel that older TMPs are quite knowledgeable in this field of practice. Based on the findings of the survey, it can be concluded that age of the traditional medicine practitioners (TMP) does not influence formulation type in herbal management of memory loss. Therefore, it can be inferred that so far the recipe is efficacious; the TMP will utilize it, whether monoherbal or polyherbal.

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