NUTRITION KNOWLEDGE AND FOOD HABITS OF THE ELDERLY IN GHANA: EVIDENCE FROM KWAHU SOUTH DISTRICT

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ABSTRACT: *Caring for the elderly is a requirement for development. Ghana's unpreparedness to meet the nutritional need of the steadily growing elderly population made this study delve into the food habits of the elderly. This study focuses on the nutrition knowledge and food habits of the elderly in the Kwahu South District of Ghana using the mixed methods approach. The study brings theoretical and empirical surveys related to the topic from global perspectives, focusing on Ghana. Applying both questionnaire and focus group discussion, the researcher solicited cross-sectional data from a field setting, analysed within the causal - exploratory to achieve the study's objectives. Data collected were analysed using the statistical package of SPSS 20 and CDC EZ 3.10C. Findings of this study established that the elderly's nutrition knowledge could not influence their food habits much because other factors like cost, motivation and availability, and health condition/status affect the foods they consume and how they are eaten.*

KEYWORDS: Nutrition Knowledge, Food habits, Elderly.

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INTRODUCTION

The WHO (2007) defined the aged as people who are fifty-five years and above (55+), whereas the 2010 population census (GSS, 2012) described the aged as people in the age bracket of 60 and above. At this rate, the country's population will double within 33 years, and by 2050, the population of Ghana will be over 50 million. The population has increased by 6.1 million from the 24.7 million recorded in 2010, constituting an annual intercensal growth rate of 2.1%. The aging population keeps rising globally due to social change brought about by technological advancement, improved medical care and improved living conditions in economies that have transformed the previous living arrangement into a contemporary life worldwide, including Africa and Ghana Apt 2012; Dovie 2019; Kpessa-Whyte, 2018]. This transformation has given rise to the nucleation of families and the disintegration of the extended family system that previously caters for its members' food needs and other needs. Thus, innovations in living economic structures, education, urbanisation, migration and countless other factors have made the skills and knowledge of the elderly on nutrition, dietary preference and coping mechanisms obsolete, and thus further lowered their status in favour of the young educated and technologically skilled in Ghana (Apt, 1990; Van Der Geest, 2004; Kpessa-Whyte, 2018).

As the population is ageing, they will continuously need to eat nutritious foods and require knowledge of the foods they consume for sustainability. Nutrition knowledge (NK) generally describes understanding various ideas and information about the food we eat and how it works in our bodies relative to disease prevention and optimum health (Miller & Cassady, 2015).

NK also includes the location of food resources; how to access food; and how to cook, prepare and preserve food. This invariably impacts what one chooses to eat, when to eat, and how to prepare what one wants to eat, which ultimately determines one's health status and the challenges one is likely to face as one ages (Gorecka, Czarnocinska, & Owczarzak, 2011). The evolutionary theory of food selection suggests how organisms behave to maximise their survival and genes by obtaining sufficient food to remain healthy and survive (Harris & Ross, 1987). Generally, people's selection of foods hinges on their origins (choice between local and exotic foods), inherited indigenous food etiquette, and social and ecological characteristics (Sa Nummedal & Hall, 2006; Jacquier, Bonthoux, Baciu, & Ruffieux, 2012).

According to Lin and Lee (2005), nutrition knowledge is among the numerous determinants of food habits. Even though healthier eating habits develop from higher nutrition knowledge, existing literature indicates an adversarial relationship between nutrition knowledge and food habits. Some studies found a positive correlation between nutrition knowledge, whereas others reported little connection between those variables. For example, a survey by Parmenter, Waller and Wardle (2000) established that older persons had lower scores on nutrition knowledge because older persons have preconceived ideas about food which prevent them from using new and improved dietary practices.

However, an English study found that the older group scored poorly on nutrition knowledge, which is likely a reflection that the current dietary guidelines are just a few decades old. Most likely, older adults have more set of established opinions on eating. (Parmenter, Waller, & Wardle, 2000; Spronk, Kullen, Burdon& 0'Conner, 2014).

Most of the NK literature analysis indicated that quantitative research focused on producing and collecting accurate data, which was then thoroughly examined using various statistical methodologies. (Cooper & Schindler, 2006; Gephart, 1999; Kirchgassler, 1991; Robson, 2002; Shields & Twycross, 2003) The qualitative research on the issues focused on quasi-statistical procedures, template analysis, editing, and immersion approaches that used analytical tools (Cooper & Schindler, 2006; Kirchgassler, 1991; Robson, 2002; Shields & Twycross, 2003).

Until recently, and in most parts of Africa, the extended family system was used to determine the food habits of its members, including aged members. However, marred factors such as development, education, and contact with other cultures have led to the disintegration of the family system that used to cater for the food needs of the elderly in Kwahu South. Additionally, the scarcity of empirical evidence on nutrition knowledge and food habits of the elderly within developing economies, of which Ghana is no exception, propels the need for this study. Again, few studies on the topic have produced mixed results (Basran & Hogan, 2002; Keller, Gibbs & Boudreau, 2002). Furthermore, Ghana's partial neglect of the nutritional needs of its ever-increasing elderly population motivated this research to once again delve into the food habits of the elderly, with a focus on nutrition knowledge in the Kwahu South District of Ghana. Thus, in helping resolve the controversy surrounding the linkage between nutrition knowledge and the food habits of the elderly and helping address the paucity of the empirical literature on the subject, this study sought to ascertain the link between the nutrition knowledge of the elderly and their food habits in Ghana. The purpose of the study was to explore the impact of nutrition knowledge on the food habits of the elderly in the Kwahu South District.

METHODOLOGY

This study adopted a descriptive survey design. The study focused on phenomenological and pragmatist paradigms that allowed the researcher to understand the topic within the explorative, descriptive and casual frameworks (Cooper & Schindler, 2008; Malhotra, 2004). As the purpose of this study was to examine the nutrition knowledge and food habits of the elderly, a mixed method was employed to allow for an in-depth analysis, allowing for an in-depth insight into respondents' behaviour to eventually predict the behaviour in question Wortman & Robert, 1982; Loucks, 1988; Merriam, 1994; Miles & Huberman, 1994; Maxwell, & Loomis, 2002; Bryman 2006Furthermore, integrating the approaches leads to maximizing the strengths of both quantitative and qualitative data and minimising their weaknesses (Creswell & Plano, 2011) The target population of this study was thus all the elderly in Ghana aged sixty (60) years and above. The study's accessible population captured 97 elders in the Kwahu-South District of Ghana (GSS, 2010) who were willing and could comprehend issues. In this study, 100 respondents were selected to complete the administered questionnaires. This was adequate to produce robust estimates because Tabachnick and Fidell (1996) had prescribed a minimum sample of 50 for computing robust estimates adequately.

Finally, six (6) experts on the issues of the elderly were purposively selected for a Focus Group Discussion (FGD). The study relied on the multistage sampling approach, where respondents were finally decided on a simple random basis; given that the study was interested in ascertaining the views of the elderly on their food preference and nutrition knowledge, respondents needed to be qualified to participate in the survey. Potential respondents were first asked a few demographic questions to gauge their understanding of issues and whether they

were willing to complete a set of questionnaires on the topic. Correct answers to the few posed demographic questions qualified one to participate in the study. In eliciting primary data from the elderly, the researcher first divided Kwahu-South District into five clusters based on the spread of the population. Finally, the researcher purposively selected 100 respondents from one cluster for this study. Two trained interviewers helped to conduct one-on-one interviews with respondents who could not read or had problems reading. The respondents were assured that the survey was strictly for academic purposes and that participation was voluntary, anonymous and confidential.

Causal-Exploratory research like this study typically employs multiple data collection methods (Heath, Williamson, Williams, Harcourt, 2018). Primary data for this study was thus solicited using a FGD guide and questionnaires, which are important ways to gather data for studies based on mixed methods. Nutrition knowledge was assessed using a structured questionnaire and a focus group discussion guide. The study's questions were formulated to provide a detailed understanding of real-life and cultural factors (Bordens & Abbott, 201418), which made them suitable for this study. In Ghana, due to the unreliability of the postal system and cultural idiosyncrasies, which dictate that people are more comfortable filling in a questionnaire that has been personally delivered and sometimes thoroughly explained by an interviewer, the researcher thus decided against the use of the postal questionnaire survey method.

Administering a questionnaire in this study was justified based on its popularity among scientists and social scientists in cases where publication was of essence (Bryman & Emma, 2003; Robbins & Pollnac, 1969), relatively inexpensive, flexible to use, and could be administered simultaneously to a significant respondent and tend to be easy to analyse since respondents are sensitised on the subject matter and thus influence the responses given. This study's questionnaire started with an introduction in which the purpose of the research was spelt to the sample to assure them of confidentially and anonymity. The questionnaire dealt with demographic characteristics, nutrition knowledge and food habits of the elderly. The questionnaire used 5-point and 7-point Likert scales to measure all the items of concern. It is essential to mention that, in terms of the use of scales, variants of scales are common from five to 12. Instead of asking for objective data, this study used 5-point and 7-point Likert scales that integrate the ideal precision of five and seven categories, respectively, of absolute judgment (Miller, 1956; McLeod, 201). These two scales are said to be universally adaptable, relatively insensitive and statistically clear to facilitate vigorous statistical analysis (Malhotra, 2002).

The researcher trained two research assistants to aid in data collection. They assisted the researcher in observing the study respondents, taking notes and recording the FGD proceedings. Additionally, they helped administer questionnaires and explain content to respondents to minimise participant bias. Reliance on multiple instruments was meant to achieve holistic views from respondents and reliable results in the study.

FG interviews were transcribed from the tape recordings into electronic and printed forms. Each transcript was read several times before beginning the analysis. The researcher, who developed the FG questions, read the transcripts and identified recurrent themes in the data. These themes were used to create a coding system, including coding categories and a description of each class, to guide the classification of responses to codes. The researcher and her two trained research assistants coded all transcripts, assigned coding categories to responses, and then evaluated all discrepancies in coding.

The qualitative software package CDC EZ-test version 3.10C was used to facilitate data management and coding. Reliance on text-tagging software program helped code and categorise responses in the original transcripts, thus providing a direct means by which emergent themes could be checked against and identified with the source material. Findings were presented as a description of recurrent themes as well as a reporting of the frequencies of each code, using the FGD as the unit of analysis. Thus, the themes were developed inductively and explanatory accounts were designed in recursive engagement with the data set.

Specifically, deviant cases or instances that did not conform to the data accounts were used to inform and amend these explanations (Seale, 1999; Silverman, 2001). Extracts were not exclusively assigned to separate themes, and the overlap between themes in the data was used to inform the broader analysis.

Focus Group Discussion (FGD)

Concerning the qualitative aspect of the study, knowledgeable key informants on the issues of the study were used in the FGD. Using such key informants was considered more reliable in standardising information from group perspectives (Mitchell, 1994). In this regard, considerable effort was made to persuade six key informants on the issues of the aged for their views on the research questions. Specifically, the group included four females and two males. With the consent of the participants, the researcher carried out one FGD that took one-and-a-half hours to complete. All participants received a Gh50 cedis incentive for their time.

The FG meeting began with the participants signing in and the moderator providing a short orientation on how the discussions would be conducted. Participants were seated in the middle of the room facing one another around tables with name placards (first name only) for identification purposes. A microphone was placed on a small table or chair in the middle of the circle to ensure optimal recording of the FGDs. The session was both audio-taped and transcribed by the assistant moderator. Participants introduced themselves and shared what their best food was as a discussion icebreaker. The participants were then presented with questions to gain insight into how nutrition knowledge impacted their food choices and food habit formation.

Finally, during discussions, the interviewing moderator probed the participants with questions and asked for clarification on issues to ensure an in-depth articulation of the group's views. The moderator directed the conversation to the less vociferous members of the group in an attempt to span the diversity of all experiences and opinions. Although this was not always successful with less forthcoming participants, it prevented an over-representation of the views of small numbers of more vocal members. Each discussion lasted approximately 40–50 minutes.

RESULTS

Education and Employment Status of Respondents

Table 1: Educational and Employment Status of Respondents

Demographic Variables		Frequency	Percent
Educational Background	Primary	15	15.5
	Middle level	18	18.6
	Post-Secondary	13	13.7
	Vocational/technical	3	3.1
	O/A level	36	37.1
	Professional	8	8.3
	Tertiary	3	3.4
	Other	1	1.0
	Total	**97**	**100.00**
Employment Status	Full-time	**38**	**39.2**
	Casual Labour	**8**	**8.2**
	Part-time	**19**	**19.6**
	Unemployed	**16**	**16.5**
	Retired	**14**	**14.4**
	Others	**2**	**2.1**
	Total	**97**	**100.00**

In **Table 1**, 15.5% completed primary education, 18.6% and 13.7% finished middle school and post-secondary education respectively. Again, 3.1% and 8.3% had vocational/technical and professional qualifications respectively. The majority (37.2%) of the respondents who answered the questionnaire were O/A level holders. This result confirms a study by Karim, Yusof, Noor, Ahmad and Siong (2008) in "Nutrition Knowledge among the Elderly in Malaysia", which established a significant correlation between educational status and nutrition knowledge. It was confirmed that the majority of Malaysian elderly had poor nutrition knowledge. This study iterated the need to devise and implement suitable nutritional education interventions to improve the deficiencies of nutrition knowledge among the Malaysian elderly. Likewise, a food habit and health status study was carried out by Norimah and Hajamohaideen (2003) on aged Malays.

Nutrition Knowledge of the Respondents

Table 2: Broad Drivers of Nutrition Knowledge of the Respondents.

Drivers of nutritional knowledge	Number of Response	Percentage (%)
A		
Health implications on blood level, circulation and pressure	9	100.0
B		
Basis for food consumption		
Availability	31	42.5
Accessibility	27	37.0
Familiarity	15	20.5
Total	**73**	**100**
C		
Other drivers		
Taste and smell differences in food intakes	24	35.3
Familiarity and differences in foods	19	27.9
Knowledge on preparation new foods	15	15.5
Perceptions of side effects on food items	7	22.1
Culture	3	10.3
Total	**68**	**100**

In **Table 2**, all respondents in Group A were nutritionally conscious with respect to what they ate and how they prepared what they ate because they were aware there was a positive link between nutrition knowledge and the health implications of food choices on blood levels, circulation and pressure. In Group B, 73 of the respondents representing 75.3% reported eating foods commonly found and consumed in the study area due to their availability (42.5%), accessibility (37.0%) and familiarity 20.5% with them. In Group C, taste and smell differences in food intake (35.3%), familiarity and differences in foods (27.9%), knowledge of how new foods are prepared (22.1%), perceptions of side effects on food items (10.3%) and culture (4.4%), health implications and for that matter care must be taken in eating such foods.

Regarding knowledge of fruits, an equal percentage of respondents (1.1%) strongly disagreed and disagreed somewhat with the belief that oranges, pawpaws, bananas, and carrots help protect the body against diseases. Again, 3.8%. 2.2%, 19.7%, 24.8 and 47.3% of the respondents were *indifferent, disagreed, agreed, somewhat agreed* and strongly *disagreed* respectively, to the assertion that oranges, pawpaws, bananas, and carrots help protect the body against diseases.

Moreover, it was evident that generally, there was a higher level of knowledge about animal products, fruits and vegetables and a balanced diet, with 71.7% of the respondents correctly tracing good sources of vitamins and minerals. In addition, a vast majority (91.8%) of the sampled rightly affirmed that cooking vegetables for a long time in a large quantity of water tends to destroy food nutrients. Additionally, regarding nutrition knowledge, almost all respondents (96.7%) knew that one should eat many fruits and vegetables. More than two-thirds answered correctly that the aged should have some protein sources in their diets to remain

healthy. Again, most respondents (89.6%) agreed that whole milk and drinks high in fat, sugar, or salt should be avoided due to their adverse effects on health.
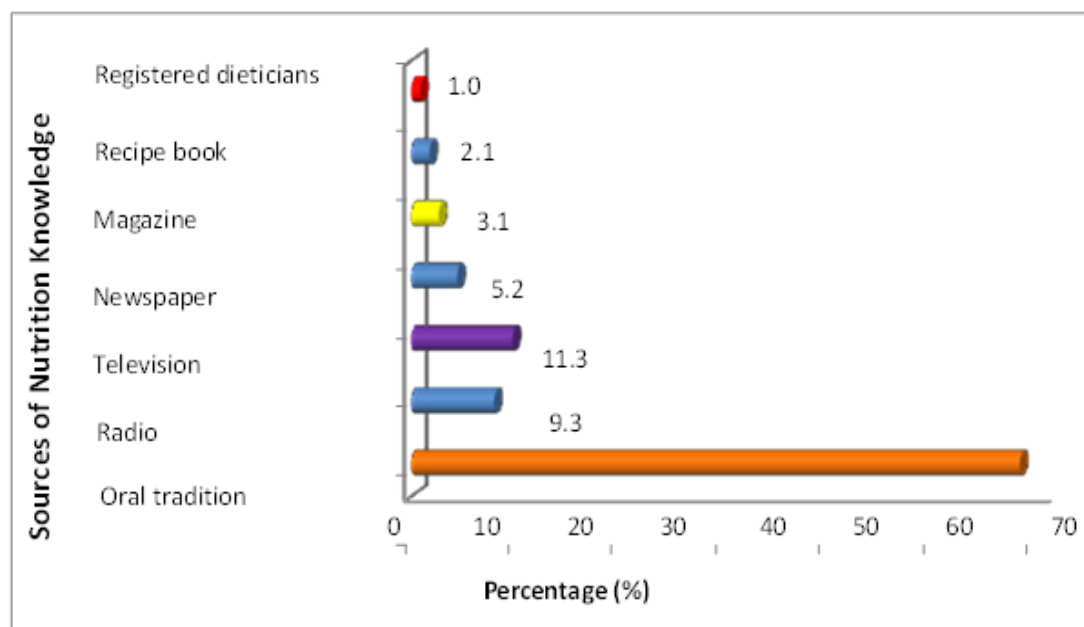

Figure 1: Sources of Nutrition Knowledge of Respondents

Sources of Nutrition Knowledge of Respondents

In Figure 1, it was apparent that the primary sources of information on nutrition knowledge as enumerated by the respondents were oral traditions handed down from parents (68.0%), radio (9.3%) and television (11.3%). Interestingly, learning about nutrition from sources like recipe books (2.1%), newspapers (5.2%), magazines (3.1%) and registered dieticians (1.0%) emerged as rare in this study. Hence, on the whole, oral traditions emerged as the most frequently mentioned source of nutrition information in this study. This result was consistent in that most of the study's respondents were unschooled and had visual and auditory challenges.

RESULTS FROM FOCUS GROUP DISCUSSION

Nutrition Knowledge

All participants reported various ways of knowing about food. Five (A B C E F) participants knew about food nutrient sources and what happens to vegetables when cooked for long hours. Four (A C D E) participants said they traced what they perceived as significant changes in their dietary intakes to technological advances and the fusion of cultures. All participants (A B C D E, F) collectively agreed that having a wide variety of foods in one's diet was crucial.

Participants viewed fruit, vegetables, minerals, low-fat foods and animal foods, particularly game, as healthy eating and vital for graceful graying. Fruit and vegetable consumption was

frequently cited as being healthy, and a preference for vegetables over fruits was noted; many suggested this was due to the cost and availability of fruits. Some participants indicated that vegetables helped their vision and helped build their resistance to diseases. There was consensus among participants that fat and oils found in red meats, butter, and whole milk must be avoided due to their adverse effects on human health. Participants were also aware that their daily intake of fruits and vegetables was conditioned on season and cost. One participant (*A*) stated, "*To tell you the truth, we often eat fruits only when we can afford or have them presented to us as gifts and when these fruits are in season. Honestly, this situation is scary, yet it's the reality….*"

Sources of Nutrition Knowledge

All participants mentioned that their knowledge of food was obtained from parents, health professionals, food labels and the media. However, most participants confirmed that parents and family played a crucial role in instilling knowledge of food habits in them. Beyond these, specific sources of nutrition knowledge identified by participants were (1) Cooking shows on radio and TV (*A*, *B*, *C*); (2) Recipe books, magazines, and newsletters (*A*, *B*, *D*); (3) Previous work experience in food-related jobs (*D*); and (4) Food labels (*D*, *E*, *F*).

Participant *B* said, "*I learnt about food preparation and its side effects extensively from my parents and other women in food preparation at home.* Participant E said, "*I watched the TV cooking show 'Onga Kitchen' and I started eating healthy*". Again, participant *A* reported that she heard on the radio that "*breakfast is the most crucial meal of the day,*" so she makes sure to prepare a "*healthy breakfast*" for her family to start the day."

Table 3: Food Habits of the Elderly

Indicator		**Freq**	**Percentage**	**Cum %**
A Drivers of food choices	Availability	23	23.7	23.7
	Cost	37	38.1	61.8
	Food in season	12	12.4	74.2
	Ease of preparation	6	6.2	80.4
	Health reasons	12	12.4	92.8
	Ease of eating (chewing and swallowing)	7	7.2	100
	Total	**97**	**100**	**100**
B Most preferred method of food preparation	Boiling	47	48.5	48.5
	Stewing	24	24.7	73.2
	Steaming	11	11.3	84.5
	Frying	8	8.2	92.7
	Roasting & roasting	5	5.2	97.9
	Baking	2	2.1	100
	Total	97	100	100
C Number of times respondents ate in a day	Once	4	4.1	4.1
	Twice	35	36.1	40.2
	Thrice	46	47.4	87.6
	Four times & more	12	12.4	100
	Total	**97**	**100**	**100**

D Vegetables consumed by respondents	Leafy vegetable	22	22.7	22.7
	Tomatoes	22	22.7	45.4
	Garden eggs	26	26.8	72.2
	Okra	20	20.6	92.8
	Other	7	7.2	**100**
	Total	**97**	**100**	**100**
E Fruits consumed by respondents	Pawpaw	12	12.4	12
	Banana	45	46.4	61
	Mango	19	19.6	80
	Water melon	8	8.3	85
	Pineapple	3	3.1	88
	Orange	8	8.3	98
	Others	2	02. 1	100
	Total	**97**	**100**	**100**
F Cereals consumed	Rice	34	35.1	35.1
	Maize	31	32	61
	Wheat	7	7.2	68
	Sorghum	13 11118111 8	13.4	84
	Millet	12	12.7	100
	Total	**97**	**100**	**100**
G Animal products consumed	Snail	38	39.2	39.2
	Fish	23	23.7	62.9
	Eggs	17	17.5	80.4
	Pork	8	8.2	88.6
	Poultry	5	5.2	93.8.
	Game	4	4.1	97.9
	Red meat	2	2.1	100
	Total	**97**	**100**	**100**

Table 3 describes the food habits of the elderly. In item A, the major factors influencing food habits are cost and availability of food, with 38.1.% and 23.7%, respectively. Other drivers of food habits captured include food in season and health reasons (12.4% each), ease of preparation (6.2%) and ease of eating (7.2%). Item B, the preferred method of cooking, was boiling (48.5%), followed by stewing (24.7%), steaming (11.3%), frying (8.2%), roasting (5.2%) and baking (2.1%). It was established in column C that the majority (47.4%) of the sampled ate thrice a day, followed by those who ate twice (36.1%), 12.4% consumed more than four times, and only 4% ate once a day. Concerning item D, 22.7%, 22.7%, 26.0% and 20.6% of the respondents preferred leafy vegetables, tomatoes, *garden eggs, and* okra, respectively. The remaining 7.2% of the respondents chose other vegetables like 'efrj' (Butternut Squash), garlic, green beans and cabbage. Most (93%) of the respondents opted for vegetables in soups and stews. Again, in item E, 12.0%, 49.0%, 19% *and* 5.0% of the respondents selected pawpaw, banana, mango, and watermelon, respectively. The 2.0% of

respondents who favoured other fruits indicated their liking for pear, honeydew melon, cucumber, lemon, miracle berry (used in place of sugar), pumpkin, and coconut for their low cholesterol levels and medicinal properties.

Respondents quickly added that their selected fruits were generally based on seasonal availability and the cost of these fruits. Respondents confirmed that they normally had their fruits squeezed, sliced, blended and occasionally taken as smoothies. Preferences for cereals (item F) were, rice 34.0%, maize 27.0% and wheat 7.0%. However, respondents quickly added that cereals formed a minute portion of their daily diet compared to root crops and plantain. Sorghum (16.0%) and millet (16.0%) are consumed as porridge that they usually purchase in the morning. In table 3, item G selected animal products that respondents regularly ate within the study period were *snail* (40.0%), fish (24.0%), *egg* (17.0%) and *pork* (8.0%) with *red meat* (2.0%) as the least selected animal product. Respondents indicated that they wanted their animal products boiled and stewed on any given day.

Motivational Factors

Participants consistently mentioned that nutrition knowledge helped them to "*eat healthy*", *"live longer", and "have more energy*", which is required for working efficiently. Most participants recognised that "healthy food protects one from getting sick," "eating healthy prevents overweight and obesity", and food-related diseases like heart attack, diabetes and hypertension. For example, all participants mentioned processed and canned foods as unhealthy due to many conditions one is likely to get from them upon consumption. Similarly, participant D explained, "*when you eat something unhealthy, you become moody and are always tired because fat gets retained in your body and fills your heart and clogs your blood vessels."* Participants also iterated some merits of eating a healthy diet based on the psychosocial effects of food. For example, participants agreed that eating healthy makes one "*have more energy,"* "*stay younger, improve self-esteem and* focus on given tasks with less stress." Related to this, it was vital for some participants to eat healthy to be role models for other family members. For example, participants *A* and *F* reported wanting to be role models for their children and colleagues to eat healthier.

DISCUSSION

Nutrition Knowledge

In agreement with Karim et al. (2008), this study has established a significant correlation between educational status and nutrition knowledge. However, illiterate respondents had high nutrition knowledge because parents and other family women served as the district's primary source of nutrition knowledge. The study also found other sources of nutrition knowledge to be health professionals, food labels and the media. Given the importance of these channels in disseminating nutrition knowledge, the results suggest that the nutrition knowledge of the elderly in the study area can be influenced via varying media, which constitute sources of nutrition knowledge (Neumark-Sztainer *et al.,* 1999; Story *et al.,* 2002). With oral tradition identified as this study's most common source of nutrition knowledge, stakeholders should proactively document this knowledge for posterity. Interestingly, this finding contradicts Wiström and Thelin (2013), that the elderly possess relatively limited nutrition knowledge on fruit and vegetable consumption.

The study also found that the elderly required a balanced diet with all food nutrients in their correct proportions to age gracefully. Whereas other age groups generally needed a balanced diet for growth and development, the elderly in this study primarily required a balanced diet for tissue repairs and resistance against ailments. This finding contrasted with Fanelli and Stevenhagen (1976) and Drewnowski et al. (1997), that diets of the elderly tended to be less varied in terms of nutrient composition. The findings of this study on nutrition knowledge reaffirmed the review of Cereda, Barichella, Pedrolli, and Pezzoli (2010), that generally, a typical diet of the elderly consists of vegetables and fish (Lutfiyya, Chang, & Lipsky, 2012). Furthermore, this study's findings, like Cynthia et al. (2003) and Terra et al. (2003), also established a significant positive link between adult consumption of fruits and vegetables and their health.

Due concern was given to health and cost, food variety, accessibility, familiarity, affordability and availability concerns, physiological factors of taste and smell, differences in food intakes, knowledge on how new foods are prepared, perceptions of side effects on food items and culture as the general determinants of food habits among the sampled. Again, the study corroborated the findings of Yahia, Serrano, Valero and González-Aguilar (2017), revealing that the aged generally preferred vegetables, fruits and beans. Furthermore, this study's findings, like Nicklett and Kadell (2013) and Pem and Jeewon (2015), also established a significant positive link between adult consumption of fruits and vegetables and their health. This study confirms a study by Fitzgerald and Spaccarotella (2009), stating that several considerations/factors influence the food habits of the elderly. Despite their knowledge of food, their food choices depended on the cost of food and availability. This could be partly explained by the results of unemployment or inadequate retirement benefits from previous engagement attributed. This study also confirms Turrell and Kavanagh (2006), which indicated that the elderly could not apply nutrition knowledge in their food decisions and choices due to household income, especially after retirement. This study also confirms Adriana, Fabbri, Guy, Crosby (2016), Hirsch & Kramer (1993), and Engell, Kramer, Luther, & Adams (1990). Prescott, Young, O'Neill, Yau, and Stevens (2002)] studies found the ease of food preparation as a critical factor in the meal choices of the elderly.

SUMMARY AND FINDING

This study established a significant positive correlation between nutrition knowledge and educational status within the study period. The oral tradition emerged as the primary source of nutrition knowledge in this study. Other sources identified to be sources of nutrition knowledge were radio, TV, recipe books and previous work experience in food-related jobs. This study agrees that a myriad of interwoven drivers influenced the eating behaviour of adults over the study period. These factors were traced to physiological familiarity and food differences, knowledge of how new foods are prepared, and perceptions of side effects on food items and culture. Finally, it was clear that adults in the study area were *nutritionally conscious concerning* what they eat and how to prepare and eat their meals due to the health implications of eating unhealthy foods.

CONCLUSION

Most of the elderly, at the time of the study, possessed some appreciable levels of nutrition knowledge from different sources, with oral tradition emerging as the primary source. Again, nutrition knowledge could not influence their food habits much because other factors like cost, motivation, availability and health condition/status affect the foods they consume and how they are eaten.

RECOMMENDATIONS

Nutrition education, especially for the elderly, should be organised/intensified at churches, mosques, hospitals and other social gatherings to disseminate current dietary and nutrition information**. Providing adequate education on food choices and nutrition for ageing among the aged should** go a long way to boost their health. In addition, the fact that oral tradition emerged as the primary source of nutrition knowledge for the elderly (Figure 1) is a signal to see documentation of this knowledge as essential for posterity. Furthermore, helping create avenues to empower the elderly economically should be seen as a step in the right direction concerning the ability of the aged to meet their food needs and cope with health-related challenges that often come with ageing. Families and other stakeholders should support healthy, nutrition-sensitive, healthy lifestyle programmes that ensure good nutritional practices.

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