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# **MENU PLANNERS' ADHERENCE TO NUTRITIONAL GUIDELINES IN MENU PLANNING IN OSU, GHANA**

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## **Abstract**

Nutrition is a critical element in menu planning. Despite its important role, few empirical studies have attempted to link nutrition to menu planning. This paper explores the extent to which nutritional issues are considered in menu planning and menu planners' adherence to nutritional guidelines. The study adopted an exploratory approach, using in-depth interviews to explore and collect qualitative data for the study. Four main themes were identified from the analysis: nutrition principles in menu planning, customers' nutritional needs, the pyramid and the 3 food steps, and the adherence to requirements in nutritional guidelines. The menu planners' knowledge on nutrition was mostly based on past experiences and learning on-the-job rather than the recommendation given in nutrition books or by expert. The study revealed that adherence to nutritional guidelines is almost overlooked when planning restaurant menus. This is as a result of the deficiency in nutrition awareness. This study, therefore, suggests that restaurant operators should create avenues for their kitchen staff to upgrade their knowledge in food and nutrition. There is also the need for dietitians to work closely together with foodservice operators to create and modify recipes that meet dietary guidelines.

## **Key words**

Adherence, menu planning, nutrition knowledge, 3 food steps, Osu, Ghana

## **INTRODUCTION**

Eating out, formerly reserved for special occasions where customers selected their dishes, with little regard for nutritional content (Magris & McCreery, 2001), has undergone significant changes. Today, people are more conscious of the relationship between the

food they eat and their health status. Consequently, a nutritional balance must always be achieved

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when planning the menu. It is suggested that, a nutritiously balanced menu may even help to attract customers since people are becoming more concerned with fitness and health (Gisslen, 2003).

In addition, with today's rapid lifestyle, eating out has become a necessity (Spence, 1995; Strauss, 1994) rather than an occasional treat. In response to the changing lifestyle and food consumption pattern of people, food outlets have become widespread. Individuals who are unable to prepare their meals at home take advantage of the convenience these food outlets provide. The frequency with which consumers dine in restaurants has thrust the foodservice industry into the role of nutrition educators although many in the industry lack formal education (Bruce & Nies, 1994). This phenomenon, therefore, raises some concerns about the place of nutrition and the role of menu planners in the foodservice industry.

Menu planners initiate the steps toward the provision of healthy food to consumers through the activity of menu planning. However, the issues of taste and profitability pose barriers to their effort. Taste is still a big issue for customers when ordering food (Reicher & Dalton, 1998) and also affects overall dining experience. Consumers are only willing to consume healthy foods that appeal to the senses, look exciting and tastes good (Rousslin & Viera, 1998). Whenever people eat out, they depend on restaurateurs to provide foods that meet their dietary requirements. However, menu planners will select more nutritious menu options only when they know that customers will consistently request and order such items on a regular basis, thus making it profitable (Johnson, Raab, Champaner

& Leontos, 2002).

Accurate knowledge and an understanding of issues related to nutrition could be an advantage to restaurant operators and also of benefit to the consumer (Bruce & Nies, 1994). Menu planners should, therefore, be concerned with knowing what their regular customers' nutritional needs are and meeting those needs. However, the field of nutrition is very specialized hence expecting menu planners to become nutrition experts may be asking too much. Many foodservice personnel (like the generality of society), lack formal nutrition education (Roberts & Regan, 1991). In their study of nutrition knowledge, attitudes, and behaviours of Canadian Military Cooks, Burton and Sabry discovered that majority of the cooks surveyed lacked adequate nutrition knowledge (Burton & Sabry, 1988). They also found out that the foodservice behaviours reported in many instances were inconsistent with dietary recommendations.

It is reported that, despite the increased interest in nutrition, studies on what the public know or believe they know about nutrition indicate a lack of knowledge about the dietary guidelines (Bruce & Nies, 1994). Menu planners in the restaurant industry, therefore, need accurate nutrition knowledge and a positive attitude towards nutrition to be able to sell the idea of nutrition to the public. Nutrition educators and dieticians could take the opportunity to target menu planners for nutrition education and also empower them to accept the responsibility for healthy menu planning (Reicher & Dalton, 1998; Sims-Bell, 1998).

Many people are becoming increasingly aware of the prevalence of diet-related diseases

such as diabetes, cardiovascular diseases and some cancers (Condrasky, Ledikwe, Flood & Rolls, 2007; Johnson, Raab, Champaner & Leontos, 2002). Restaurant customers are also becoming increasingly aware of the relationship between food and health. They are, therefore, concerned with the nutritional value of the food they eat outside their homes, since healthy eating contributes to prolonging lives. This is validated by a research report released by National Restaurant Association (USA) revealing that, some 73% of American adults surveyed said they tried to eat healthier in 2011 at restaurants than they did in 2009.

Health-conscious customers have prompted the restaurant industry of their interest in healthy menu options and the restaurant industry is actively responding by making changes not only to the food options but also to the preparation methods (NRA, 2013). Healthy food items are increasingly becoming an important part of restaurant menus even in quick service segment (Spears & Gregoire, 2007; DiPietro, Roseman, & Ashley, 2004). For example, McDonalds, a USA fast food chain restaurant included grilled chicken sandwiches; and apple slices, juicy red grapes, candied walnuts with low-fat vanilla yogurt dip on their menu (McDonalds menu, 2011). Presently, the promotion of nutritious and healthy menu items is one of the greatest marketing opportunities in the restaurant sector. Consequently, with much to gain and nothing to lose, the decision to consider the nutritional implications of restaurant operating decisions should be obvious (Ninemeier & Hayes, 2006).

The nutritional responsibility of restaurants is less well defined, unlike that of welfare

institutions such as schools and hospitals. The obligation of restaurateurs to provide nutritious and well-balanced food to customers is more elusive because they are in business to sell foods that will attract customers (Gisslen, 2003) and also profit the business. Consumers are also not easing the effort of restaurateurs with their attitude when they eat out. The signals consumers present about healthy food preferences are sometimes misleading (Chen, Legrand, & Solan, 2009) because their actual purchasing behaviour does not always equal their stated intentions (Jones, 1999). Majority of restaurateurs reported that although customers say that they want healthier menu items, they do not consistently choose such menu items (Jones, 1999). Consumers do not ask for healthy foods when they are not presented on the menu (Johnson et al., 2002). Often the same customers indulge in rich, creamy sauces and ice cream in a restaurant (Levine as cited in Chen et al., 2009), which do not match their affirmed intentions.

Customers cannot be forced to consume a nutritious meal but the choice must be available. The menu should offer a variety of foods including more vegetables and fruits to respond to the changing eating habits of customers. The ability of menu planners to create healthy menus, however, is dependent on their knowledge of nutritional or dietary guidelines. Dietary guidelines are series of recommendations for dietary intakes that helps to reduce the risk of diseases related to food. Dietary guidelines are instituted by national governments, which emphasises on the importance of creating a healthy eating pattern to promote good health. The dietary guidelines are usually expressed in the form

of a diagram (nutrition guides or food guides) depicting how the recommendations should be applied following recommended servings listed for each food group.

One menu planning tool which provides specific recommendations for making food choices is the Food Guide Pyramid. Although MyPlate has replaced MyPyramid and the Food Guide Pyramid, the pyramid was designed to be and still remains a teaching tool to communicate the Dietary Guidelines for Americans. The pyramid divides the foods from the five major food groups into different sections (USDA, 2015). The pyramid can be used as a dietary management and menu-planning tool (Khan, 1998). As an indispensable tool, the pyramid educates menu planners on what is healthy or otherwise. The pyramid enforces a total diet approach and demonstrates the combination of ingredients in the right proportions. The illustrations are focused on concepts of variety, moderation, and proportion and also include a range for daily amounts of food.

In Ghana, many people suffer from both malnutrition, and under-nutrition resulting from deficiencies in the diet and over-nutrition occurring as a result of excessive food intake (Ministry of Health [MoH], 2009). To achieve a balance in nutrition, the Dietary and Physical Activity Guidelines was developed in 2009, which serves as a standard guide to the development of learning materials and health education messages for the general public as well as for teaching.

Since no single food provides all the nutrients needed by the body, it is advisable to eat a variety of foods every day. Consequently, it is essential for all people to know how to plan and consume a varied and nutritionally

adequate diet. This can be accomplished through the use of a “Food Guide” which is an indispensable tool to assist individuals, families and menu planners to make healthy choices and also combine ingredients in their right proportions. The food guide designed by MoH in 2009 is referred to as the ‘3 Food Steps’.

The 3 food steps provide possible daily food options based on Ghanaian dietary patterns and take into account the nutrient content of these foods. Each step represents a food group, the proportion and a range for daily requirements. Step 1 represents starches, vegetables and fresh fruits and forms the bulk of a healthy meal. In step 2, animal and vegetable protein forms the moderate part of a healthy meal. Whereas, in step 3, fats, refined sugars and salt forms a small part of a healthy meal. A healthy food menu is, therefore, one that consists of choices from all the steps in the right proportions.

Restaurants are and will incessantly provide food and nutrition to the general public (Johnson et al., 2002). The public’s interest in nutrition and at the same time the rising incidence of non-communicable diseases represents a challenge for today’s menu planners and chefs (Johnson et al., 2002). This positions foodservice operators as key players in the provision of healthy food to customers. In Ghana, there is scarcity of documented studies on the importance of nutrition in menu planning. This scarcity is against the background of increasing affluence and work demands leading to more people eating out, and reports of increasing cases of illnesses associated with poor diet habits. All these, coupled with the current increased awareness of health and nutrition

among consumers make a study into the nutrition principles applied in menu planning and menu planners' adherence to nutritional guidelines critical and timely. This paper explores the extent to which nutritional issues are considered in menu planning and menu planners' adherence to nutritional guidelines.

### *The concept of adherence*

Adherence has been widely used in clinical research to study patients' behaviour in relation to treatment. At the core of this concept is patients' ability to comply with medical advice on treatment to meet the treatment goals (Vitolins, Rand, Rapp, Ribisl, & Se-vick, 2000; Rand, 1993). Within the adherence concept, behavioural processes are influenced by several interacting factors due to the complex nature of adherence (Hotz, Kaptein, Pruitt, Sanchez-Sosa, Wiley, & WHO, 2003). These include attributes of the patient, the patient's environment (which comprises social supports, characteristics of the health care system, functioning of the health care team, and the availability and accessibility of health care resources) and characteristics of the disease in question and its treatment. In the context of menu planning, the interacting factors determining adherence include characteristics of the menu planner, the operating environment (which comprises kitchen set-up and capabilities of kitchen staff, competitors, availability and accessibility of nutritious menu planning tools) and the type of restaurant and its target market.

Since menu planning is context bound, other contextual issues will influence the extent of adherence to nutritional guidelines. This is the case in Ghana particularly, where

some consumers select their food with little regard for nutrition (Hiamey, Amuquandoh, & Boison, 2013; Hayford Steiner-Asiedu, & Sakyi-Dawson, 2015). Menu planners normally (and expectedly) concentrate on the financial imperative- on what sells fast to generate a fair profit for the business. Also, experienced menu planners are likely to rely on their own expertise in planning and not on recommendations from other experts. The interacting factors within this concept could represent a motivation for menu planners to adhere or not to nutritional guidelines when performing the task of menu planning. Therefore, an understanding of the factors as it is linked to menu planning would provide an appreciation of why menu planners would want to plan a menu featuring nutritious options.

### **Methodology**

The study was conducted in Osu, a suburb of Accra in Ghana. Osu is proximal to the ministries area (a suburb in Accra where the various government offices are located). There are several businesses booming in the area and these together generate demand for eating places close by and restaurant in Osu to provide a ready, close and convenient opportunity to satisfy this demand. 'Oxford Street' is a popular street in Osu and is noted for its vibrant commercial, restaurant and night-life activities and attracts a lot of visitors and tourists (both domestic and international). Most of these tourists, according to Ghana Tourism Authority (GTA, 2011) are from USA and UK where nutrition has been well researched. Besides the above description, the focus is on Osu because the concentration

of restaurants in Osu is the highest in the Accra Metropolis. Consequently, there is stiff competition that might influence the actions of what these restaurants towards maintaining their image and customers.

The study design was exploratory in nature as it allowed for the collection of qualitative data for the purpose of in-depth discussion of issues relating to menu planners' knowledge and application of nutrition to menu planning. A total of 15 participants, representing 12 menu planners and 3 other key informants representing Ghana Tourism Authority (GTA), Food and Drugs Authority (FDA), and Ghana Restaurant Association (GRA) were purposively sampled to partake in the study.

The study sought information on four main issues using an interview guide. The first section of the guide asked menu planners to express their understanding of nutrition and nutrition principles in menu planning. The second section dwelled on the nutritional needs of their customers and how those needs are addressed in the selection of menu items. The third section probed into menu planning tools available to the menu planners. They were also asked to indicate their awareness or ignorance of the food guide pyramid and 3 food steps. The last section asked menu planners to indicate their adherence to the requirements recommended in the food guides. This section further probed whether the menu planners consulted experts, books or other nutritional guidelines when planning the menu. Other information was obtained through a documentary analysis of copies of each restaurant's menu, the Dietary and Physical Activity Guidelines for Ghana by MoH, as well as all relevant documents and information related to the study.

Before the data collection, contacts were made, in the form of personal calls, with the participants to seek their permission to be interviewed. After their permission was sought, the interview date, time and place were scheduled. The interviews with the menu planners were conducted mostly after 3pm when the menu planners were less busy. This is because between the hours of 12 noon and 3pm, lunch was being served and the menu planners were very busy especially those who doubled as managers, supervisors or matrons/chefs.

The recordings from the in-depth interviews were transcribed, organised, coded (open coding) and analysed under themes. A general coding scheme was developed to capture the main themes discussed. The scheme was grouped into 4 themes: nutrition principles in menu planning, customers' nutritional needs, the food guides and menu planning, and nutritional guidelines regulating menu planning. Text searches on each theme were read and summary on the substantive points were examined. The transcripts were coded using the QSR N6 (version 6) qualitative software.

## **Results**

### *Profile of Menu Planners in Osu*

The position of the menu planner is not the same (but similar) for every restaurant. There is no fixed position/job title in the restaurant business as a menu planner. This temporal position is as a result of the responsibility given to that person. In short, it is a duty assigned to people in other positions who are capable of planning the menu. In this study, the menu planners identified were managers,

supervisors, and matrons, either working independently or with others in the restaurant to plan the menu (Table 1). This confirms the findings from a study conducted in upscale restaurants in Brisbane, Australia (Morrison,

restaurant and their chefs. The menu planners sought help or worked in groups to plan the menu, especially when they needed input on nutrition and pricing. For example, a male manger without formal training said,

Table 1: Profile of menu planners

Name of Interviewee	Sex	Position /Job title	Form/level of Training
DCR	Male	Supervisor, personal assistant to the managing director and secretary	Diploma
HIR	Male	Manager	Degree
KIR	Male	Supervisor	On-the-job
RCR	Male	General manager	On-the-job
CKR	Female	Proprietor and senior supervisor	Certificate
EGR	Female	Matron	Certificate
FKR	Male	Senior supervisor	Certificate
HSR	Male	Proprietor and manager	On-the-job
MPR	Female	Owner and manager	On-the-job
PCR	Male	General manager	On-the-job
SSB	Female	Proprietor and manager	On-the-job
TCR	Male	Restaurant manager	On-the-job

1997); which also revealed that majority of the interviewees classified themselves as head or executive chef while the remainder were managers or owners working closely with their chefs.

Some of the menu planners were managers and/or owners who were working closely with their chefs, or cooks. Others were managers or supervisors who were also working closely with their “bosses” or owners of the

*“I am the restaurant manager. The menu was planned by the restaurant manager (me), the chef, the director and other cooks; we were about 4 or 5. However, the price of the menu items is determined by the chef, the director and the manager (me).”*

Though they undertook consultations during the conduct of their duties, the menu planners were solely responsible for finalising the menu. This re-echoes the argument



that, if the task and requirements in planning the menu seems daunting, the only way out to compensate is the ability to work in groups (Kotschevar & Withrow, 2008).

A few of them (5 out of 12) had had formal training on restaurant operation in an institution with a diploma or a degree. The remainder learnt the skills on-the-job and through experience from working in different restaurants implying that they have no formal education in nutrition. One menu planner remarked that she was in the restaurant business because she was continuing a family history. She said her family members were all into the restaurant business and she has been a part of it since she was a child. Therefore, she needed no formal training to operate a restaurant or plan a menu.

### *Themes*

The results are presented according to the four central themes identified in the analysis across the two main groups (those with formal training and those without formal training in restaurant operation).

#### *Theme 1. Nutrition principles in menu planning*

All the menu planners expressed some understanding of issues relating to nutrition in menu planning with little differences observed among those with formal training in restaurant operation and those without any formal training. Four subthemes were identified under theme 1: nutrition knowledge, selection of nutritious menu items, ingredients inspection and preservation, and preparation and cooking methods.

*Regarding nutrition knowledge*, the study found that all the menu planners demonstrated some basic understanding of nutrition in menu planning. There was a consensus on the understanding on nutrition as, a balanced diet and the nutrients the body absorbs from food. They mentioned that, they select items that make use of different ingredients to give it a balance. For example, one menu planner (without formal training) said: “we have ‘butter chicken’ which contains; butter, milk, cashew nut, pepper, salt and some other things. Pepper will give you vitamin C, salt will give you minerals, the butter has got fat and the chicken too will give you protein.” However, only a few could explain in detail the exact nutrients absorbed by the body. A few of the menu planners also made mention of hygiene and food safety as part of their understanding of nutrition which is key to providing healthy foods because a nutritious meal must be safe and free from bacteria. One menu planner (with formal training) said: “*I consider the hygiene aspect of food preparation and also make sure that every food we serve here is fresh and not expired.*” Another menu planner (without formal training) also said: “*because some of our dishes are not cooked (especially the salads), ingredients are extremely important.*”

A few of the menu planners also indicated they were aware that too much oil and salt have adverse effects on their customers. So when preparing the items they use oil and salt sparingly. An example is: “*As you can see, our foods don’t have a lot of vegetable oil. I tell them (my staff), the body doesn’t need all that. For salt, I told all the ladies who used to put a lot of salt in the food that, salt will give your customers*

*urine retention, destroy their heart and give them hypertension, so they should reduce it. That is why we have salt and pepper on the table. Customers can add more salt when they need it” (with formal training).*

In terms of ingredients inspection and preservation, the menu planners reported that, they preferred menu items that make use of fresh and quality ingredients. Some of them stated that, they had arrangements for constant supply of ingredients, thereby, avoiding having to store the ingredients for long periods. One of the menu planners (without formal training) emphasized that, there is no need overstocking ingredients that are readily available on the market. He recommended that, certain ingredients (such as beef and chicken) have to be used within three to four days after purchase, so that the freshness and quality will be maintained.

Some of them also indicated that, they have trained personnel in the kitchen who make sure that all ingredients are of high quality before they are used in the preparation of menu items. One of them cautioned that quality should never be compromised. She (without formal training) said: *“ There is someone in the kitchen that is trained on systems check. He makes sure that all the ingredients are of top quality. Once you have quality ingredients, there is no way to go wrong. If you start compromising on quality... for example, if you buy tomatoes that are less expensive to bring your costs down, that is when there will be a problem with the ingredients.”*

Finally under the first theme, in the case of preparation and cooking methods, the findings showed that the menu planners echoed their preference for preparation and cooking

methods that retain ingredient’s nutrients. Their main reason was that, even with fresh and quality ingredients the food could still be junk if time is abused during preparation and cooking of ingredients. The menu planners also reported that they preferred menu items that require quick cooking methods.

One menu planner (a certificate holder) made a very significant contribution that some nutrients can be lost during the food preparation stage. She mentioned that preparation of the ingredients must be considered when planning the menu otherwise some of the nutrients will be lost in the process. She explained with an example that vegetables must be washed before they are peeled or cut, and not the other way round. *“ I tell my staff; kontomire must be washed before cutting. If it is cut before washing, all the nutrients will be lost and only junk food will be served to the customers.”*

The menu planners operating with the Chinese concept mostly preferred stir-frying and grilling. Other methods mentioned by the menu planners were boiling, steaming, roasting, and baking which in the literature, are also healthy cooking methods. An example is *“we mainly use grilling, roasting and boiling”, “vegetables and proteins are steamed and stir fried in vegetable oil.”*

When the menu planners were asked to state why they preferred these methods of cooking, the most occurring response was that; these are the standard cooking methods. One said: *“If you want kebab, you need to grill it. For the bread, you have to bake it and you need to boil the rice before you can eat it.”* Some of them, however, indicated that stir-frying. When the menu planners were asked to state why they preferred these methods

of cooking, the most occurring response was that; these are the standard cooking methods. One said: *“If you want khebab, you need to grill it. For the bread, you have to bake it and you need to boil the rice before you can eat it.”* Some of them, however, indicated that stir-frying.

### *Theme 2. Knowledge of customers’ nutritional needs*

All the menu planners disclosed that they did not conduct any research into customer needs before selecting the menu items. Nonetheless some of them did a trial of some items after their selection. Nine of them mentioned how they preferred the use of an extensive menu, and the reliance on customer request (either the customers request for special treatment or the waiters request if they have any special needs) to resolve this issue.

Nine out of the twelve menu planners selected a variety of menu items so that anyone who goes to the restaurant would get something to meet his/her needs. An assessment of the restaurants’ menus revealed that 9 out of the 12 copies of the restaurants’ menus could be described as extensive because they featured menu items ranging from 100 to 500. The remaining 3 that seemed to be limited even had menu items ranging from 53 to 86. This is what they described as providing variety – *the use of an extensive menu*. *“Yes, that is why we have a broad menu. So no matter who you are, when you come here you will get something to suit your taste”* (with formal training).

In addition, the menu planners indicated that, they trust their customers (with special needs) for information on what and how the

menu items should be prepared for them. If the customers fail to do that they would prepare the items in accordance with the restaurant’s standard. An example is: *“The customer must tell us what to do. For example, reduce the oil, salt, sugar before we will follow. Otherwise, we do it our way”* (without formal training).

The menu planners consistently explained that, customers who asked for clarification on some menu items (especially the ingredients composition) were given the details. Some of the menus reviewed had just a few of the items described (ingredients used and preparation method) and most of the items were without any description, but none of the menus had any nutritional facts stated on it. The menu planners said they had instructed their waiters to give such details to customers, and if the customers were not satisfied, they called them to give further clarifications. As mentioned earlier, most of the menu planners were managers and supervisors, so they were always at hand to attend to such matters. *“If the customers don’t understand anything, the waiter call me and I explain to them”* (with formal training).

### *Theme 3. The pyramid and the 3 food steps as tools for menu planning*

Eight out of the twelve menu planners reported having no idea about the food guide pyramid. Only 4 of the menu planners knew about the pyramid. Those who reported to have heard about the pyramid could not really explain what they knew. One of the menu planners explained that, it helped them but not entirely because their customers do not take all their meals at their restaurant; so it was somewhat difficult to apply the recommendations.

The argument was that you could only serve the customers what they asked for. Nevertheless, they implemented some aspects of the recommendations and offered nutritious menu options for customers who craved for those items. One menu planner without formal training stated that: “*the difficulty is we only serve lunch and dinner. We apply some of the recommendations, but the customers have to make the choice.*” (without formal training).

Also, none of the menu planners reported having any knowledge of the 3 food steps. They had no idea a Dietary and Physical Activity Guidelines for Ghana existed which could serve as a tool for planning healthy menu items.

#### *Theme 4.*

##### *Adherence to nutritional guidelines*

All the menu planners reported that they do not apply the nutritional recommendations of the 3 food steps or the pyramid; consulted nutrition experts, food and nutrition books. Nonetheless, 4 of the menu planners (all females) indicated that they adhered to some nutritional guidelines other than the recommended guidelines. For example, one of the four menu planners (without formal training) stated that, she offers only nutritious foods to her customers. She also said that, she relied on the nutritional guidelines of some basic schools she caters to, when planning the restaurant’s menu. “*I am quite conscious of the products we serve, so it is already quite high in nutritional value. I also cater for schools, so I have the schools’ guideline to follow and I duplicate for the restaurant.*”

The other 8 menu planners admitted that

they do not adhere to any known nutritional guidelines. They stated that they mostly relied on their own knowledge and experience acquired on-the-job or their chefs to guide them when selecting menu items. However, they quickly added that GTA, Accra Metropolitan Assembly (AMA) and FDA gave them some standards to maintain which included nutritional requirements, safety and hygiene standards. For example, one menu planner with formal training said that, “*For nutritional regulations, we follow AMA, GTA and FDA standard requirements. You have to meet their standards. They provide nutritional requirement, staff health and hygiene guidelines.*”

However, a follow up to GTA and FDA revealed that, the menu planners were only given operating standards, safety and hygiene standards and not nutritional requirements. These stakeholders (GTA, FDA and GRA) revealed that they neither have control over how the restaurants plan their menus nor the nutritional values of the menu items. The respondent from GTA mentioned that, “*We only go to the restaurant to inspect the facility and the equipment they use. If they are not conforming to the standards we give them, then we have the power to withdraw their license or caution them to adhere to the guidelines. We do not provide them with any nutritional guidelines.*” (Respondent from GTA)

### **Discussion and policy implications**

The findings of this study support some aspects of the theory of adherence. Menu planners’ ability to comply with nutritional guidelines depends on the expertise and work experience of the menu planners, the operating

environment (which comprises competitors, demand from owners, availability and accessibility of nutritious menu planning tools) and the needs of the customers. The findings show that adherence does not materialise in vacuum. This proves that adherence related to menu planning is a complex concept, as menu planners ought to bring to balance all interacting factors to make adherence possible.

One would have expected that the menu planners who have had some formal training in restaurant operation/nutrition would express more knowledge of nutrition in menu planning as compared to those who acquired nutrition knowledge on-the-job, but it was not the case. From the analysis, there were no distinct variations in the issues expressed by those with formal training. They all expressed similar issues regarding nutrition in menu planning. First, the menu planners often associated nutrition with eating a balanced diet, the food nutrients absorbed by the body. A few of them also loosely associated nutrition with hygiene and food safety. Although the menu planners demonstrated some knowledge of nutrition, they possess no more than the average person as uncovered by Middleton (Middleton, 2000). This could be explained by the deficiency in nutrition education and training. The lack of education highlighted by a number of researchers manifests itself in this study whereby menu planners have adopted their own ways of planning healthy menus based upon their own experience and perceived expertise. The food guide pyramid and the 3 food steps are new to almost all the menu planners and therefore are not considered in menu planning. The principal interest of the menu planners is satisfying their

customers and increasing their profit margins.

Nonetheless, the menu planners are interested in applying some nutrition principles in menu planning. As stated earlier, the menu planners were a mix of managers, supervisors who worked closely with their chefs or matrons. The menu planners demonstrated a positive attitude towards nutrition by the strategies they adopted to provide nutritious menu items to their customers. The strategies as discussed earlier include, purchasing ingredients that are high in nutritional quality; preserving nutritional quality of foods during the handling and storage stages; preservation of food nutrients during food preparation steps such as washing, cleaning, or peeling foods; and preservation of food nutrients during cooking using proper cooking methods. The positive attitude of menu planners is in line with many of the previous studies (Middleton, 2000; Rouslin & Viera, 1998; Reicher & Dalton, 1998).

However, the issue of time still poses a barrier to the selection of some healthy menu items. A study conducted by Reicher and Dalton in 1998 found that although chefs were practicing some healthy food preparation technique, the factors of time, taste and training still posed barriers. In this present study, the menu planners believed that the quality of food could be compromised if time is abused in preparation and cooking and, therefore, favoured foods that require less time in their preparation and cooking instead of modifying their recipes. Furthermore, the response given by some of the menu planners with regards to why they prefer stir frying and grilling is not conclusive; the fact that it is a standard practice in the restaurant, does not justify them as the

proper cooking methods that retain ingredients nutrients. The menu planners were not able to explain why they prefer stir-frying and grilling over the other cooking methods. This could be explained by the lack of nutrition education and training.

It can be deduced that culture also plays a role in the preference for some cooking methods. The menu planners for restaurants operating with the Chinese concept mostly preferred stir-frying and grilling. One of them compared his cooking methods to the Ghanaian method of cooking and concluded that some Ghanaian dishes are overcooked, thus, the food losing most nutrients. For instance, one of them explained that, if you have to prepare stew in Ghana, the conventional method is that, you first steam the meat, fry it and then cook it in the stew before it is consumed. This is a three-in-one process (steaming/boiling, frying and stewing) and is true in the Ghanaian setting.

The menu planners preferred to rely on their own experience acquired on-the-job rather than consulting nutrition experts or resorting to food and nutrition when planning menus for the restaurant. It seems almost as if theory is different from practice. While most of them said they do not adhere to any nutritional guidelines in menu planning, they emphasized the challenges and opportunities thrown at them by their customers in the attempt to select nutritious menu options. This proposition is further strengthened by studies that have reported that the same customers who would push you to select healthy menu options will also indulge in unhealthy eating lifestyles (Levine as cited in Chen et al., 2009; Johnson et al., 2002; Middleton, 2000). Hence, there should be a balance between

responsibility towards owners (profitability) and responsibility towards customers (promotion of healthy menu item that taste good and has sensory appeal).

An unexpected finding of this study was the menu planner who reported that she consults the nutrition recommendation of a school she caters to. This is a basic school and the nutritional requirements of such age group are different from that of the restaurant customers. However, what this suggests is that if menu planners are made aware of the Dietary and physical Activity Guidelines for Ghana, they may consult and plan menus that will be congruent to the guidelines.

In recent decades where affluence and work demands are leading more people to eat out, the importance of the adherence to nutritional guidelines in the restaurant setting is indispensable. One key determinant of adherence is awareness, and it is clear from this study that menu planners are not aware of the tools that can aid them in planning healthy menus. The result of this exploratory study provides valuable insight into the need to educate menu planners in nutrition related issues in the restaurant setting. This study is an important step in the creation of awareness of the 3 food steps, which provides guidelines for making healthy food choices.

Planning menus for restaurants that offer nutritious options is difficult but very critical. However, this is most often forgotten because operators are not obligated to adhere to any specific nutritional guidelines. Policy makers can, therefore, incorporate this in their routine inspections to narrow the gap between theory and practice and also to subtly coerce restaurant operators to provide nutritious options on their menu. To make it

mandatory for menu planners to incorporate recommendations from nutritional guidelines into their menu planning, it is also necessary for MoH to make the document available to the menu planners. This will help achieve the national goal of influencing food choices to promote healthy eating.

The study also gives prominence to the need for restaurant operators to create avenues for regular training of their kitchen staff in nutrition and menu planning. This would enhance knowledge in food and nutrition and also ensure some standardization in the practice of menu planning. However, the understanding of the menu planners that customers should be given what they want and not what menu planners think is nutritious poses a barrier to the application of the recommendation in the pyramid or the 3 food steps in the restaurant setting and has to be addressed during training.

## Conclusion

In this study, knowledge on nutrition was found to be somewhat lacking, although the menu planners unanimously expressed some understanding of issues relating to nutrition in menu planning. The study further revealed that, the menu planners do not adhere to the recommendations in the 3 food steps and the food guide pyramid because they are not aware of the recommendations. Nonetheless, the menu planners believed they are already promoting healthy eating. This creates opportunities for nutrition educators and dietitians to target menu planners for nutrition education and also empower them to accept the responsibility for healthy menu planning.

The issues raised in this study could be

validated with a quantitative study involving a larger sample. Future studies should continue to focus on importance of nutrition in menu planning in the commercial foodservice industry.

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