

Socio-Demographic Determinants of Perceived Influences on Household Food Choice in Galle, Kalutara, Matara and Moneragala Districts

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Abstract: Once food choices are shaped by individual, societal and cultural factors. Pre tested food frequency questionnaire which consisted of 30 food items was used to evaluate the habitual food intake pattern of the 160 households over 7 days. Women consume significantly more cereals ($r = 0.229$, $p = 0.005$), fruits ($r = 0.193$, $p = 0.018$) and vegetables ($r = 0.221$, $p = 0.007$) than men. Across age groups, those ages above 35 significantly consume more fruits ($r = 0.066$, $p = 0.021$) and vegetables ($r = 0.018$, $p = 0.015$) than younger counterparts. The higher income groups significantly consuming more fruits ($r = 0.381$, $p = 0.000$), vegetables ($r = 0.739$, $p = 0.000$), dairy ($r = 0.197$, $p = 0.016$) and meat ($r = 0.475$, $p = 0.000$). Socio demographic profiles including age, income, family size, education, gender and geographic region were responsible for habitual food intake patterns. Support from this study nutritional program should be concern about the implications to raise their eating habits.

Key words: Socio demographic profiles, household food choice, fruits, education, gender, cereals

INTRODUCTION

Food is not just eaten for its nutrient value, for many it is a source of pleasure, an enjoyable experience and even a comforting activity (Clark, 1998). Khan (1981) have described food habits as the way of individuals response to social and cultural pressures choice, consume and utilize portions of the available food supply. Cultures and traditions are the foundations on all food choice decisions. Sri Lankan traditional diets contain plenty of vegetables and rice but that food preparation unique to regional wise. That was changed drastically during recent years due to a concurrent adoption of westernized diet. Food consumption data provide estimation on the quantity of each prepared food consumed by individuals. Those vary considerably from country to country and even within a country due to variations in ethnicity, geographical areas, age and sex. The World Health Organization (WHO) recommends that individual countries should estimate their own food consumption pattern. For that food frequency questionnaire is a useful method to evaluate habitual food intake of individuals (Kelemen *et al.*, 2003; Subar, 2004). This study aimed to evaluate the food intake patterns among respondents with respect to examine variations in food intake pattern by

age, gender, region of residence, employment, income, education family background and ownership of home garden or rearing farm animals in their homes.

MATERIALS AND METHODS

A random sample of 160 households was selected from three districts Galle, Kalutara, Matara and Moneragala districts. Primary data were collected using a pre-tested food frequency questionnaire over 7 days to evaluate habitual food intake. Food intake was categorized according to seven food groups (fish, meat, egg and nuts; dairy; vegetables; fruits; cereals; fat, oil and sugar; water and beverages) including 30 food items. The food groups were examined in the study population and compared across their individual characteristics. The cereal group included the summed equivalence of rice, rice based products (hoppers, string hoppers, pittu, etc.) bread and biscuits. The meat group included the summed equivalence of poultry, pork, beef, mutton and processed meat like sausages. Respondents were asked to indicate their average frequency of consumption of each food item over the week. They could choose from 7 frequency categories namely never, once a week, rarely per week, 2-3 and 5-6 times week⁻¹, 2-3 and 4-6 times day⁻¹. Data were analyzed using SPSS statistical package (version

10.0). For the univariate analysis, measures of mean of food intake were computed. Variations in food group consumption frequency by individual characteristics were analyzed using the Chi-squared statistic. To ascertain the relationship of food intake pattern by age, gender, religion, region of residence, employment, income, education, family background and ownership of home garden or rearing farm animals the Pearson correlation coefficient used.

RESULTS AND DISCUSSION

Demographic characteristics of the sample were urban (43.3%), female (80%), age <35 years (32%), age between 35-55 (66%), completed either secondary or higher education (90%) being a permanent, casual or self employ (88%); income receiving Rs. <10000 group (17%); Buddhists (69%), household having 4 members (39.3%). Majoring of respondents (61.3%) shared 65% of income portion to the food budget for whole family per month. That was significantly decided according to their income ($r = 0.654$, $p = 0.004$). There is no doubt that the cost of food is a primary determinant of food choice. Whether cost is prohibitive depends fundamentally on a person's income. Access to more money does not automatically equate to a better quality diet but the range of foods from which one can choose should increase. Around 81% households had home garden out of that 54.5% had vegetables, fruits and flowers in their home garden. Having a home garden was significantly correlated with geographical region ($r = 0.223$, $p = 0.006$). About 11% reared wild chicken, cattle, goat or duck in their homes. Out of other livestock, 31% reared cattle for getting milk in their homes especially observed in Moneragala area.

Eating behaviour is complex and an understanding of the impact of the factors that affect food choice is vital given the priority for population dietary change. Committee on Nutrition (1964) stated emotional and cultural factors are of exceptional importance in determining food intake. Rozin and Vollmecke (1986) emphasized food choice is immense and varied among members of the same culture. Examining the individual food group constituents, it can be seen that consumption of the different types of food groups varies by individual socio-demography status. Also 82% of households failed to consume foods from the every food groups daily. Survey reveals that households have mainly a rice based diet. Rice is eaten 2 times daily (97%) and some households 2-3 times eat bread as a substitute to rice. This result is expected as rice is the staple food of Sri Lankan. Women consume significantly more cereals ($r = 0.229$, $p = 0.005$), fruits ($r = 0.193$, $p = 0.018$) and vegetables ($r = 0.221$, $p = 0.007$) than men. Whereas little

difference was seen in dairy consumption across gender, although that difference was insignificant. Men consume significantly more meat ($r = 0.056$, $p = 0.012$), fish ($r = 0.074$, $p = 0.017$), egg ($r = 0.480$, $p = 0.018$), oil ($r = 0.088$, $p = 0.01$) and sweets ($r = 0.247$, $p = 0.002$) than women. Almost 64% were complying with the recommended sparingly servings of fat and sugar group (oil, butter, margarine, sweet meal) significantly women being more likely to meet this target than men. Men consume greater amounts of food from most food groups than women but women consume greater variety of foods than men did. Gender differences in food choices therefore appear to be partly to their stronger beliefs in healthy eating. Age related differences were observed with regard to food consumption. Across age groups, those ages above 35 significantly consume more fruits ($r = 0.066$, $p = 0.021$) and vegetables ($r = 0.018$, $p = 0.015$) but lower number of servings of cereals, animal flesh, fat, oil and sweets than younger counterparts. As well as age increased, significantly fewer servings dairy ($r = 0.138$, $p = 0.009$) were consumed. Respondents who were in the higher income groups significantly consuming more fruits ($r = 0.381$, $p = 0.000$), vegetables ($r = 0.739$, $p = 0.000$), dairy ($r = 0.197$, $p = 0.016$) and meat ($r = 0.475$, $p = 0.000$) than those in lower income groups. Employment status showed a significant gradient with consuming more meat ($r = 0.168$, $p = 0.040$), fruit ($r = 0.109$, $p = 0.004$), vegetables ($r = 0.248$, $p = 0.002$) and dairy ($r = 0.079$, $p = 0.025$) servings. It has been found that individuals with higher education, income and social status have a higher consumption of fruit and vegetables than those with lower education and income (Johansson and Andersen, 1998; McClelland *et al.*, 1998). Kearney *et al.* (1999) also indicated the level of education can influence dietary behaviour. Family size influenced the dietary status of the households i.e., the smaller the family the better its dietary rating. Region of residence significantly affect consumption of marine fish ($r = 0.079$, $p = 0.000$), cow milk ($r = 0.066$, $p = 0.025$) and leafy vegetables ($r = 0.828$, $p = 0.018$). Rural has more access to cow milk and leafy vegetables than urban. In contrast, urban consumed more servings of marine fish than rural counterparts. The availability and the affordability (price) of these food items might be the possible reasons for this dietary pattern. Pollard *et al.* (2002) mentioned consumers do not choose their foods exclusively for the nutrients they provide. People who were having home gardens or animals had more access to the dairy, vegetable and fruit consumption. Households didn't recognized fruits as important food group and they spent money on them very rarely. The 11 households surveyed have never eaten fruits for the whole week. But in respondents who like in Moneragala district, they ate fruit at least 5 or

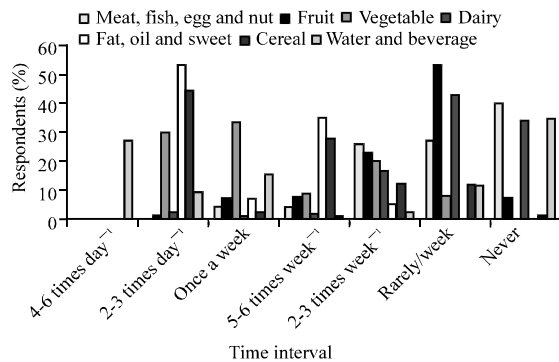


Fig. 1: Consumption pattern of different food groups

6 times week⁻¹. Religion influences lead to the difference in the habitual consumption of certain foods and in traditions of preparation and in certain cases can lead to restrictions such as exclusion of meat and milk from the diet. Religion influences are however amenable to change. Despite the fact that 69% were Buddhists only 6% avoiding consumption of any other animal flesh. Consumption of water did not vary by socio-demographic characters. Respondents showed habit of drinking plain water with 99% drinking at least 5 times of plain water daily. Respondents 64% used tap water as water source and 27% boiled the water before they drink (Fig. 1).

Around 30% respondents were changed their meal pattern during past 2 years mainly due to the health risk and the change of life style. Around 6% of respondents have skipped their breakfast during interviewed period. Most respondents (90%) who had their breakfast either late or not at all because they were not accustomed to have morning meal due to rush time schedule. Several investigations have suggested that omission of breakfast may be a factor contributing to dietary inadequacies and that nutritional loss is rarely made up by other meals during the remainder of the day (Ohlson and Hart, 1965; Ruxton and Kirk, 1997). In another study of Lappalainen *et al.* (1997) stated lack of time is frequently mentioned for not following breakfast particularly by the young. While 12 and 13% respondents had their lunch and dinner on time respectively.

About 55% prepared rotti, kola kanda, pittu, kiribath, string hoppers and hoppers as special diet for their households at morning, 27% prepared vandu, cake, halapa, sandwiches and vadae at afternoon, same as 42% prepared soup, kurakhan thalapa, rotti, fried rice, thosai, noodles and string hoppers as alternatives to main meal at night. Those were principally decided by mothers and prepared due to celebrate ceremonial occasions or as a change for households.

Nearly 39% purchased their meal from a canteen or restaurant and admitted to eat from outside at least once a week. The reasons given to such a practice were mainly

convenience and nobody been at home to prepare their meal. Respondents who were eating outside were varied by age and gender. But that didn't differ significantly by perceived education or income of the family. Younger respondents were more likely than older ones to eat their meal from outside (age below 30: 66%; age 30-45: 24%; age above 45: 10%) as were male respondents (85%). Out of outside eaters, 68, 30.5 and 59% had their breakfast, lunch and dinner meal respectively from food outlets or restaurants. That was more common in the families particularly with households where both are working.

A study by Frazao and Cleveland (1994) identified the nutrition and health awareness effects on the actual consumer dietary behavior. There was 83.3% respondents admitted to meal planning either frequently or sometimes in their house. Mothers (67%) were mainly contributed for that while based on food availability taken as major concern for it (45%). Socio demographic profiles, including age ($r = 0.246$, $p = 0.006$), income ($r = 0.308$, $p = 0.001$), family size ($r = 0.261$, $p = 0.005$), education ($r = 0.235$, $p = 0.004$), gender ($r = 0.223$, $p = 0.006$) and geographic region ($r = 0.175$, $p = 0.032$) were significantly effect for meal planning habit. Rimal *et al.* (2000) examined the effects of socio-demographic characteristics on household meal planner's consideration. According to that study the household income, the number of children in the household, the geographic location, gender, age and education significantly effected meal planning.

CONCLUSION

The findings of this study would have significant implication to understand the complexity of respondent's food preferences and consumption. This can be critically linked to raises people concern about the implications of meal planning for their better nutritional health. What people eat is formed and constrained by circumstances that are essentially social and cultural. This showed there was a clear difference in social classes with regard to food intakes. Poor diets can result problems which face different sectors of society. So, there was requiring different levels of expertise and methods of intervention. Interventions should be focus on increasing the familiarity. Availability and accessibility of all food groups and should be mindful of the need to target messages appropriately for respondents who have less food preferences.

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