

Food Choice Motives among the Students of a Dental Institution in Mysore City, India

Sushma R, Vanamala N¹, Nagabhushana D², Maurya M, Sunitha S, Reddy CVK

Department of Public Health Dentistry JSS dental College and Hospital, JSS University, Mysore, Karnataka, ¹Department of Conservative Dentistry and Endodontics, D.A.P.M.R.V Dental College, Bangalore, ²Department of Oral Medicine and Radiology, JSS Dental College and Hospital, JSS University, Mysore, Karnataka, India

Address for correspondence:

Dr. Sushma Rudraswamy,
Department of Public Health
Dentistry, J.S.S. Dental College
and Hospital, J.S.S. University,
Mysore - 570 015, Karnataka, India.
E-mail: hisushhere@yahoo.co.in

Abstract

Background: In pursuit of a more “holistic” dentistry and an increasing focus on promoting oral health, dental students are increasingly being trained to take a more active part in health promotion and education. In particular, this incorporates an emphasis on diet and educating people to eat in more healthy ways. **Aim:** This paper works from the premise that if dental students are to engage in oral health promotion, they will do so more effectively if they have first explored their own food choice motivations. **Subjects and Methods:** A descriptive, cross-sectional questionnaire study. The food choice questionnaire (FCQ) was distributed to a comparative group of 1st and 5th year dental students in timetabled lecture slots. The FCQ is a previously validated measure designed to assess ten main factors relevant to peoples’ food choices. The data was analyzed using SPSS version 18.0 (Chicago, IL, USA) using descriptive statistics and independent sample *t*-test. **Results:** Nearly 77% (122/159) students responded. Findings were analyzed using independent sample *t*-test. Results indicated statistically significant differences in terms of food choice motivations between male and female students of 1st and 5th year. **Conclusion:** Awareness and an understanding of the differences in motivational factors affecting food choice between dental students is important as they are increasingly taught to play an active role in oral health promotion.

Keywords: Africa, Food, Oral health

Introduction

Along with other health professionals, dentists are being encouraged to take a more active part in health promotion and education.^[1]

There is an increasing focus on promoting oral health as part of a “common risk factor approach” and incorporates an emphasis on diet and educating people to eat in healthier ways.^[2] Understanding the motives underlying food choices is both interesting and important - it opens up a huge avenue, potentially enabling the improvement of health by positively influencing food.^[3]

Concern about food choices that may have adverse effects on health is widespread in the world, and is embodied

in documents such as healthy people 2000. It has long been recognized that food availability and cultural factors are dominant in food selection. Food is a focus of social interaction, and consumption of “prestige” foods may become an index of social status. The system of provision, including food production and manufacture, marketing, delivery and sale, has been shown to have a major impact on what people eat. At the individual level, taste or sensory appeal, likes and dislikes, and sheer habit are all relevant. There is also evidence that stress and negative emotions may influence food selection and consumption.

Health is clearly not the only factor people take into account when selecting their food. It is therefore important to explore the role of other influences on food choice. In terms of food choice, various motivating factors such as taste, sensory appeal, habit, weight control, ethical concern and stress have been shown to influence food selection.^[4]

Effective modification of dietary depends on an understanding of the factors governing food choice and also effective implementation of health promotion strategies may depend on the recognition of the status of health in comparison with other

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motives in the selection of food [5]. With this background, the aim of the present study was to explore the food choice motives among the dental students since these students are increasingly being trained to take a more active part in health promotion and education. In particular, this incorporates an emphasis on diet and educating people to eat in more healthy ways. This paper works from the premise that if dental students are to engage in oral health promotion, they will do so more effectively if they have first explored their own food choice motivations.

Subjects and Methods

The ethical clearance was obtained from the Ethical Committee of J.S.S.Dental College, and Hospital and informed consent was obtained from the study subjects prior to the start of the study. A pilot study was performed on the study population prior to the start of the study. The pilot study served as a preliminary study to identify organizational problems. The present study was conducted for a period of 3 months among the 1st and final year students of J.S.S. Dental College, Mysore. All the available individuals willing to participate were included and those individuals with a chronic disease that required a special diet were excluded. The food choice questionnaire (FCQ) developed by Steptoe *et al.* is a previously validated measure designed to assess ten main factors relevant to peoples' food choices was administered to participants.^[4] The 10 motives considered in this questionnaire were health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, ethical concern and oral health.

Participants were asked to endorse the statement: "It is important to me that the food I eat on a typical day..." for 41 separate items, by selecting between four responses: Not at all important, a little important, moderately important, and very important.

Scores on each factor was computed by adding up the individual items relating to each factor and then dividing by the number of items relating to each factor. This gave a score on each factor ranging from a minimum of 1 to a maximum of 4. The data was analyzed using SPSS version 18.0 (Chicago, IL, USA) using independent sample *t*-test in order to ascertain differences between 1st and 5th year BDS students, and also between male and female students, with regard to factors motivating food choice.

Results

There were 122 respondents. 57% (70/122) of these were 1st year students, and 43% (52/122) were 5th year students. The sample consisted of 41% (50/122) males and 59% (72/122) females.

Differences between student year were evaluated with the expectation that final year dental students would be making

healthier food choices, and that they would hold factors such as oral health and health as more important factors determining food choices than 1st year dental students. Statistically significant differences were found in relation to 4 of the 10 factors in the FCQ: Mood, convenience, sensory appeal, and oral health. Final year students rated oral health as a more important factor in making their food choices than 1st year students. By contrast, 1st year students held mood, convenience and sensory appeal as more important factors in food selection than final year students [Table 1].

Comparisons between male and female students with regard to their mean scores on the various food choice factors showed statistically significant differences on 6 out of the 10 factors: Health, mood, convenience, sensory appeal, weight, and oral health. Female students ranked all six of these factors as more important in their choice of food than did male students [Table 2].

Discussion

Several studies have focused on describing the factors involved in food choices.^[6,7] For this purpose different instruments have been designed. One of the most widely used is the FCQ, an instrument that has been adapted and used in different countries

Table 1: Mean scores on food choice factors in relation to student year

Scale	Mean (SD)		P value
	1 st year	5 th year	
Health	3.1 (0.9)	3.23 (0.9)	0.83
Mood	2.4 (0.7)	1.94 (0.6)	<0.001
Convenience	2.4 (1.1)	2.69 (0.9)	<0.01
Sensory appeal	3.2 (0.9)	3.50 (0.8)	<0.01
Natural content	3.2 (1)	3.15 (0.9)	0.45
Price	2.7 (1)	3.03 (0.8)	<0.01
Weight control	3.1 (1)	2.92 (1.1)	0.47
Familiarity	2.5 (1)	2.44 (1.1)	0.19
Ethical concern	2.7 (1.2)	2.50 (1.1)	0.59
Oral health	2.4 (0.7)	2.86 (0.7)	<0.001

SD: Standard deviation

Table 2: Mean scores on food choice factors in relation to gender

Scale	Mean (SD)		P value
	Female	Male	
Health	2.8 (0.6)	2.4 (0.7)	<0.01
Mood	2.3 (0.7)	1.9 (0.7)	<0.01
Convenience	2.7 (0.7)	2.5 (0.7)	0.04
Sensory appeal	3.1 (0.5)	2.6 (0.6)	<0.001
Natural content	2.4 (0.8)	2.2 (0.6)	0.17
Price	2.6 (0.7)	2.4 (0.7)	0.43
Weight control	2.5 (0.8)	2 (0.7)	<0.001
Familiarity	2.2 (0.6)	2 (0.7)	0.12
Ethical concern	1.9 (0.5)	1.8 (0.6)	0.11
Oral health	2.7 (0.7)	2.4 (0.7)	<0.01

SD: Standard deviation

such as Canada, USA, Finland, and Ukraine among others, in addition to some Spanish speaking countries as Uruguay.^[8-11]

Health concerns might influence not only consumers “food choice motives but also consumers” subsequent attitudes toward healthy eating. Relationship between health concern of developing diseases and attitudes toward healthy eating is fully mediated by food choice motives. However, the relationship between calorie consumption health concern and healthy eating attitudes is only partially mediated by food choice motives.^[12]

One important difference to emerge, perhaps not surprisingly, was that final year dental student’s valued oral health as a more important motivational factor in their food choice than 1st year students. Lindeman and Stark’s^[13] theory states that the selection of food choice motives involves a negotiation of identity, which explain this finding. Basically, this theory also suggests that people attempt to express their identity through food and may, therefore, adopt ideological food choice motives and in a similar way health professionals, viewing health as an ideologically desirable state, may be motivated to prioritize health related motives in their selection of food. Accordingly, 5th years students may be displaying a more “professional” self and attitude in their prioritization of “oral health” factors.

There was no difference in relation to the health factor because “health” as a motive for food choice increases with age,^[14] and also because health on its own is not more important than other factors on average in influencing food choice. This interpretation would support the argument that a multidimensional approach to motives governing food choice is required. The gender differences which emerged in this study were consistent with those of previous studies^[14-18] as women rated factors such as health, convenience, sensory appeal, weight and oral health as more important than men did.

Gender, age and motives underlying food choice affected the preference patterns for the evaluated functional foods concepts, but it depended on the carrier and enrichment considered, suggesting that functional foods might not be accepted by all consumers and that they could be tailored for certain groups.^[19]

Sensory appeal, ethical concerns and familiarity were rated as the bottom three factors of food choice motives among Malay husbands and wives in an urban community. Price of foods was not considered to be an important factor in making food choices for the subjects in this study. In conclusion, the husbands and wives of this urban community rated religion, health and convenience as the three most important food choice motives in food selection.^[20] Sensory appeal is the most important factor among all European consumers, while health, convenience and price were all among the five most important factors shaping food choice in Belgium, Hungary and Romania. For Filipinos, the most important were health, price and mood. Sensory appeal ranked on the fourth place.^[21]

Parental family food choice motives were associated with children’s food intake. Health and natural content as motive was positively associated with children’s intake of healthy foods. Convenience as motive was negatively associated with children’s intake of healthy foods.^[22] For food purchasing behavior and socio-economic characteristics, appropriate public health communication messages can be drawn.^[23]

The fact that both health and weight emerge as significantly important factors for females compared with males may mean that some apparent “healthy” food choices made by women actually have a strong relationship with weight consciousness (healthier food tends to be lower in fat their consumption may reflect pursuit of an ideal body image vs. pursuit of health).

Conclusion

This study presented a preliminary investigation into the factors underlying dental students’ food choice motivations. Insight into such motivations is useful in training dental students to think about the reasons for their own health behaviors and how those might differ from other members of the population. In this way, dental students may become more effective health promoters, thus facilitating the pursuit of a more “holistic” dental practice and profession.

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