

Original Article

Factors influencing children's food choices: Results from focus groups discussion with children and their mothers

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ABSTRACT

Objective

To evaluate food choices and related influencing factors in school children of Tehran, Iran.

Subjects and Methods

128 children (6-11 years old) in grades 1-4 and also 32 mothers were studied in 8 primary schools of Tehran in 2003. Twenty discussion sessions, 16 for students and 4 for mothers, were conducted each including 6-8 participants. After each interview, the transcripts were coded, reviewed, classified, summarized and analyzed.

Results

Most children liked milk, chocolate, fruit, junk foods, puffed cereal and potato chips. The most important reasons for children's likes and dislikes were taste and appearance. School staff and parents were the most important factors that prevented children from eating whatever they wished. Most of the children believed that it was better if they could choose their own foods. From mothers' points of view, most children liked a lot of junk food, chocolate and oily and salty snacks and disliked milk, meat specially fish and vegetable.

Conclusion

After taste and parents, factors such as TV advertisements, peers, other family member and school staff are among important factors that influenced food patterns. Therefore, study of these variables for their associations with food choices and a better understanding of these determinants would be useful in developing nutrition interventions in order to achieve healthy dietary patterns in children. (Rawal Med J 2006;36:173-177).

Key words

Children, food choices, mothers, focus groups.

INTRODUCTION

Poor diets and undesirable dietary patterns have been found to be associated with the development of negative health outcomes including cardiovascular diseases, diabetes, obesity and some cancers.¹⁻³ There is a belief that children with poor dietary habits are likely to become adults with poor diets and also childhood food habits persist into late adolescence or adulthood.^{3,4} Food choice or food preference is a complex behavior that is determined by interplay of environmental, personal and biological factors.⁵ Once school children enter into the outside world of formal education, they are vulnerable subjects to myriad forces which influence life time attitudes and behaviors, food choices and habits.⁶ The influencing factors include: taste preference, family, school practices, media messages and other children.^{2,5,7,8}

Qualitative researches especially focus group discussions (FGD) play an important role to discover people's opinions, perceptions, beliefs and attitudes towards nutritional behaviors or food habits and the context in which they have appeared.^{2,3,9-14} In our country, little literature is available on the role of different factors associated with food choice in school children. The aim of the study was to evaluate food choice and the related influencing factors through FGD in school children and their mothers from Tehran.

SUBJECTS AND METHODS

Sample: A total of 16 primary schools of Tehran (8 girls & 8 boys) from district 1&6 of Ministry of Education were randomly selected. From a socioeconomic perspective, district 6 is a middle class area and is culturally homogeneous compared to other districts of Tehran, and is considered to be representative of the city as a whole. District 1 was selected as it is the only educational district in Tehran which includes accessible rural areas. Eight primary schools (4 girls' and 4 boys') were randomly selected in each district. We asked the schools to explain the study and to invite children and mothers to participate. A total 128 children (6-11 years old) in grades 1-4 (32 boys and 32 girls from each district) and also 32 mothers (16 from each district) agreed to participate.

Study team: There were two study teams; each team consisted of 1 moderator, 1 or 2 observers and 2 nutritionists as note takers. The person selected as moderator was open-minded, flexible, a good listener, very interested in children, able to establish a rapport with them and make them feel relaxed and willing to talk. This team member had already attended 2 workshops on managing a FGD appropriately. The study counsellor, an epidemiologist, who was an expert in qualitative research, supervised all stages of the study from the beginning to the end.

Questionnaire guide: Appropriate question guides for children and mothers were designed and guides were pre tested and revised through a pilot study.

Children's Questionnaire Guide

- 1- Which foods do children like better? Why?
- 2- Which foods do children dislike? Why?
- 3- In children's opinion, is there a food that they dislike although they know that it is good or useful? Why?
- 4- Are there any foods that children can not eat for any reason although they like them? (List the reasons).
- 5- Where do children get the foods that they eat at home or school? Who chooses them? Who had better choose, children or someone else? Why?
- 6- If children make their own food choices, what do they choose?
 - Discuss with the children what influences their eating habits e.g. taste of foods, family, friends....

Mothers' Questionnaire Guide

- 1- What do children usually eat? Why?
- 2- What do children like to eat? Why?
- 3- What do children usually prefer to eat? Why?
- 4- Are there any foods that children like, but parents say they are not healthy or vice versa?
 - Discuss with the mothers what influences eating habits of school children.

Developing FGD's: Every working day, two FGDs were separately held for girls and boys at the same time in two primary schools. Students' and mothers' discussion sessions consisting of 6-8 participants were conducted in schools and each session lasted for 45-60 minutes. FGDs were audio-taped and written transcripts were prepared for data analysis. Participating children received small gifts. Some booklets were given to mothers and also to the school libraries.

Data analysis: The information from the 20 FGDs were analysed using the Krueger method. After each interview, the transcripts were coded and interpreted by study staff and were then reviewed and cross-checked with audio tapes and classified for organizing the results. The findings were summarized for children and mothers separately.

Ethical Considerations: A brief summary of study objectives and benefits was provided to the school staff and children's mothers who agreed for the study. Only after the oral

consultation they entered the study. All data were confidentially stored and analyzed. The study design was approved by the Ethical committee of National Nutrition and Food Technology Research Institute.

RESULTS

Children's likes, dislikes or preferences: Most child groups liked fruit, milk, cake, industrial fruit juices, pizza, sandwich, chocolate, junk foods and cooked foods. Few children (rural) liked vegetable, puffed cereals, chips, biscuit, salami and sausage, kebab (grilled meat) and different mixed rice. Urban childrens named ice cream, chocolate milk, meat, fish, poultry, butter, honey, sweet and cola as favorite, "children like all foods" was mentioned by a few rural children.

The most important reasons for being interested in a particular type of food were being delicious, tasty and useful. Other mentioned reasons were nice packaging, growth and intelligence improvement, disease prevention, being necessary for body, high protein and vitamin content, being homemade and desirable ingredients.

Most urban groups disliked milk and about half of the rural groups were not interested in gum, ice cream, chocolate and vegetable. Few children disliked vegetable and cooked food, fish, fast-food and Fesenjan stew (including walnut as its main ingredient). Not being delicious and sanitary were the main reasons for disliking a food.

Children liked potato chips, puffed cereals, chocolates and gum while some liked Lavashak (fruit bar), soft drinks, snacks (salty, sour or oily), vegetables, fast-foods, fried potato, sausage, salami, chocolate milk, ice cream, honey and cookies but they were not allowed to eat them.

Factors influencing children's food choice: All students mentioned parents especially mothers and also themselves as the main factors influencing their food choice or eating pattern. Nearly all children believed that it was better if they themselves could choose their

own foods, because they are independent and grown-up enough and also know more about what they like and how much they want to eat. They just wanted to make less trouble for their mothers.

Mothers' opinions on children's food choices: Most mother groups named milk and dairies in children's daily pattern. From mothers' points of view, milk is one of the healthy foods in which children have no interest. Urban mothers mentioned milk with coca or cornflakes as children's preferred choices instead of milk alone. However, rural mothers claimed that their children drank milk without anything added.

In mothers' opinions, rural students liked fruit while urban students liked fruit juice. Some snacks (puffed cereal, crisp, Lavashak, nuts ...) were reported to be children's favorites by most mothers. Mother's noted that "All kids like chocolate". In mothers' opinions, child groups preferred items like potato chips, Fruit, chocolate milk, fast foods (pizza, sandwiches, and salami), junk food and sour snacks. From a few mothers' point of view, children eat all foods.

Influences on child's food choice: TV advertisements were mentioned as an important influential factor by mothers. One mother expressed that the cartoon "Popeye - the clever sailor" encouraged her child to be interested in eating spinach. After TV, classmates, parents and other family members, attractive packaging, appearance or taste, new products, school environment, force feeding, eating out, education and teaching methods, availability, holidays, prices and meal time were among important factors influencing children's food patterns or choices.

DISCUSSION

More precise review or comparison between the results of children and mothers group interviews made it clear that mothers were aware of children's food preferences. They were concerned with the amount of "junk foods" that their children ate and also appeared

frustrated by their children's poor choices, similar to other results with African-, Euro-and Mexican-American children and their parents.¹⁵ According to other similar FGD studies, children's fruit and vegetable intakes did not meet recommended guidelines. They had mentioned sweets, dessert, and other snack foods as preferred choices instead of eating fruit at meals. Their parents noted that "most of the children eat the same thing, a lot of junk food".²

Tinsley has shown that overall children are not especially concerned about health outcomes and that health is not a salient issue or a priority for them.¹⁶ This is especially so for those younger than 9 years.³ There is evidence that many 9-10 year old children believe that "if a food tastes good, it must not be good for me and if a food tastes bad, it is probably good for me."¹⁷ This raises the possibility of the reverse effect: if a food is said to be healthy then I probably will not like it.³ Nearly all students noted parents especially mothers and also their own interest (especially related to taste and appearance) as the main influencing factors in food choice. Parents' interventions on children's eating pattern were also confirmed during mothers' interviews. Although most children believed that parents were good choosers, they preferred to choose foods by themselves.

In children's opinions, parents have a marked influence on what they eat. On the other hand, most mothers considered TV commercials as a strong influential factor. Advertisements, TV shows, movies, celebrities and sport stars can have a big influence on children's food choices. Children are often not aware of how much influence TV and other media have on their food choices, but parents usually are concerned; for example, about new foods that are advertised on TV but seem unhealthy to them.^{2,3,18-22} There have been plenty of studies about advertisements and their effects on children's behaviors and nutrition.²³ Other researchers showed that generally some foods with low nutritious values were advertised in TV commercials aimed at children.^{24,25} Therefore, serious courses of

action must be taken to tackle this problem and to neutralize the negative effects of TV commercials. Our results are entirely supported by a number of studies concerned with the external factors affecting children's eating behaviors.^{2,3,8}

CONCLUSION

The most important reasons for children's likes and dislikes were taste and appearance. After taste and parents, factors such as TV advertisements, peers, other family member and school staff are among important factors that influence food patterns. Therefore, study of these variables for their associations with food choices and a better understanding of these determinants would be useful in developing nutrition interventions in order to achieve healthy dietary patterns in children.

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