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Food Neophobia-A Barrier to Healthy Diet: A Brief Review

Review Article

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Abstract

The present paper explores the relative importance of fruit and vegetable consumption in children and adults. The paper provides an overview of potential determinants of Food Neophobia .It is also proposed in the paper that food Neophobia and liking are important factors in healthy eating. Food Neophobia have shown to contribute to rejection or acceptance of fruits and vegetables, so the thorough understanding and analysis of variables which influence the development and expression of these factors is required. Psychological research is beginning to reveal the complex interplay of innate and environmental factors which shape eating patterns.

Keywords: Food neophobia; Food preferences; Personality; Traits; Social influences

Introduction

The word was diet originated in 1566 and meant "to take one's meal" or "to feed on.". Dietician used the word, diet, mean all the food that a person eats on a regular basis. Diet of people may have changed due to several reasons, like disease prevention, weight loss, food allergies or improvement of mental and physical health. Availability of plenty of food doesn't mean good nutrition and well maintained health of country citizens, especially for developed countries access to a greater variety of food does not mean a diet is necessarily healthful and nutritious. The reason for healthy diet may be different for different people. Found that health reason for eating certain foods, based on the factors like [1], health and energy, preventing disease and achieving excellent health. Still many studies have not found a close connection between nutrition knowledge and food intake. Found that nutrition knowledge correlated mainly with vegetables [2], fruit and fat intake, they have reported that knowledge of different health behavior does not have an effect on behavior if a person is not motivated to change. Sometimes people alter their diet because of their religious and personal reasons and because of belief also, for some food, like follower of Muslim religion and Jewish faith has many dietary rules. In modern societies, food is more than mere substance. What people choose to eat is not solely based on their biological need, their choice also address many physiological and or emotional issues [3]. There are various factors that shape the development of human food preferences. The term "preferences" refer to the selection of one item over another. In general "preferences" connotes that liking is the basis for selection, although liking is only one of number. Of motive that affect food selection. Food Preferences strongly influence intake and it is therefore vital to understand how these preferences arise.

Food preferences develops from genetically determined predisposition, Even a childlike sweet and salty flavor and dislike bitter and sour taste because of genetically determined predisposition. Food neophobia has been identified as an inherent adaptive personality trait (Milton 1993). It is defined as the rejection of food that is novel or unknown to child. Food neophobia aids this avoidance mechanism naturally by rejecting potential food for that they no experiences.

Reason to Study

Everywhere in the world there are still gap between dietary recommendations and actual food consumption in the general population, to improve the health status of individual, it is important to understand eating attitude and behavior, Evidence also indicates that dietary habits are acquired in childhood persist throughout the life. Development of healthy eating behavior is mostly depends upon environments and the attitudes towards the health and taste. Extensive nutrition education campaign in western countries during

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the last few decades have tried to reduce the gap between dietary recommendations and quality of diet.

Food neophobia is defined as unwillingness to eat novel foods and is thought to be an adaptive behavior, to promote healthy dietary practices ensuring child to consume right foods that are familiar and safe during developmental periods [4]. Dislike of sensory characteristics of food appears to be the strongest driver of neophobia in young and adult. Some authors have suggested that lack of dietary variety in children and adult diet is directly associated with the intake of food stuff.

Food Neophobia and Its Causes

Food neophobia is often described as the reluctance to eat, or avoidance of, new foods [5]. The term was derived from the earlier work of 'Rozin's "omnivore's dilemma"' because humans are omnivores and mammals. During infancy we are nourished exclusively by milk and during this period food preferences are not an issue. Early infancy is the time important in the development of a predisposition to respond to new foods and to influence food preferences and food intake. There are very few factors which explain the reduction of neophobic response, but it is very true that neophobic responses is reduced by repeated opportunity to consume novel food e.g. when 2 year old were given varying number of opportunities to taste new fruits and cheese, their preferences increases with frequency of exposure, with the evidence it is observed that between 5-10 exposure to a new food are necessary to see and increase preference for it.

Genetic Predisposition

1) The genetic predisposition that constrain food preferences or intake of healthy food, like consumption of vegetables and fruit, especially in children, include

(a) The predisposition to prefer foods that are sweet and salty and reject those that are sour and bitter.

b) The predisposition to reject novel food and no predisposition to prefer vegetable and fruit until, unless they are presented in acceptable forms

(c) The predisposition to learn food preferences by associating food with the context and consequences of eating them.

The research of genetic effect on individual differences in food preferences and food selection in adult done by Reed et al. and Peruse and Bouchard [6-8], the research suggest that in humans, genetic differences account for relatively little variance in food preferences and apart from it, environment factor is also important. Research has also identified several genes related to individual differences in sweet and bitter taste perception. Genetic sensitivity to bitter may also influence preferences for other taste.

Personality and Gender

In general, women have been frequently reported to engage in far more health promoting behavior than men and have a healthier lifestyle [9].

Good taste has been reported as the main reason among swedish respondent [10]. The taste is the most important factor in relation to fruit and vegetable consumption [11]. In their study of american female university student [12], he found attitudes towards different fat containing food because people generally get enjoyment of these foods, it is to be prominent predictor of their consumption of fatty foods. This enjoyment and taste factor leads to resistance in selecting the healthy food item.

It has been proposed so many times that, neophobia is related to age [13]. It is the most obvious personality trait that if a person is having sensation seeking nature or individual who are more sensation seeking by nature tend to have much lower levels of food neophobia [14-16]. Other personality factor have also been positively associated with food neophobia including trait anxiety.

Acceptance or rejection of food, depends upon its novelty, once its novelty has been removed it is outside of the realm of food neophobia, the rejection of food based on the visual perception, odor and amount of exposure. In terms of sex difference some studies have found differences in food neophobia (e.g. women are more neophobic; frank and vander, klaauw 1994) [17].

Way to Reduce Food Neophobia

Through social influence

The effect of social environment on food neophobia may help to decrease the duration of expression [18]. If people around the child consuming the novel food, the more willing of the child to try it, the greatest effect, if every person around the child is eating at the same time [19,20]. This would suggest that young child learns to accept food through observing importance of food rather than linguistic reasoning.

Mother's eating behavior, attitudes and child feeding practices have a major impact on the development of children's food acceptance pattern. Social factor are particularly important in shaping children preferences as they make transit to the adult diet. For children, adult and peer can also play a role in inducing of an initially disliked or unfamiliar food. The effectiveness of role model in inducing children to try food also differ, depending on the relationship between child and the model. Older children more effective than strangers, and for older preschool children, adult heroes are more effective than more ordinary adult [21,22].

Learned food preferences, repeated exposure and post ingestive consequences

Experimental studies illustrate neophobic tendencies can be reduced and preferences can be increased by exposing infants and young children repeatedly to novel food. These studies suggest that young children s need to be exposed to novel food between 6-15 times.

Exposure needs to include tasting the food, as merely seeing or learning a novel food on repeated occasions did not promote children preferences for that food. Human species can learn to associate food flavor with consequences that follow eating. These consequences can be positive such as pleasant post ingestive signals generated

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by normal satiety. Repeated association of food with positive post ingestive signals can produce learned preferences.

A recent intervention study found that repeatedly exposing children to a novel food with in positive social environments is especially effective in increasing children's willingness to try and preference for the novel food. These findings suggest the importance of both the act of repeatedly exposing children to new food and the context within which this exposure occurs.

Post-ingestive consequences also influences preferences and can facilitate the acceptance of previously disliked taste such as sour and bitter, Parents play a pivotal role in molding children's food preferences by offering contingencies. Parents may also restrict children's access to palatable foods that are high in sugar, salt, and fat in an effort to decrease their children's preferences and intake of these foods.

Much of food preference development occurs during childhood, food preferences continue to change during adolescence and adulthood. The factors that change food preferences become more complex as individuals mature. Adult food preferences are associated with age, sex, health status, education and income .Healthfulness of food preferences increases with increasing age.

Methodology

In this study most of the input and information or data are gathered from selected books and journal and it is more of a descriptive research in nature because the objective is to assess and evaluate the relationship between healthy eating and food neophobia .However, assessment and findings of past and ongoing research has been used to support a number of factors and relations between relevant variables.

Summary and Conclusion

In present review of up-to-date research, results demonstrate an important influence of food neophobia on healthy diet.

It is clear that children are not consuming enough fruit and vegetables during childhood. Which is left unchecked and will lead to a generation of unhealthy nutrient deficient adult. It appears that overcoming food neophobia is integral to getting children to adopt a healthy diet and eat fruit and vegetables.

In most of the world today preferences of food, influences food selection in a way that are inconsistent with dietary guidelines and that promote being overweight and obese. Our genetic predisposition includes the preference for sweet and salty taste and tendency to reject new food. This genetic predisposition developed through several generations, when high energy foods were scarce. Parents can apply a variety of strategies to improve their children's eating like, offering of rewards and provisions of nutrition information.

Research with a variety of other species and research with humans has shown that observing other eating a new food can reduce neophobic response, in making the transition to adult diet, a young rat learned to prefer the adult diet by observing eating by other rats; specially adult rat. Rat pub are prefer to eat at location where adults are eating, rather than where no rats are present.

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