

# Impact of Demographic Factors on the Snacking Behavior of Individuals

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## ABSTRACT

Snacking behavior of the consumers has a great impact on their dietary behavior and health. Therefore this research was conducted to assess the relationship of snacking time and the snacking preferences with the age and gender of the individuals. Preference to consume different snack varieties, such as Biscuits, Potato chips, chocolate, candy, sandwiches, ice cream, fruits and pizza in particular periods of the day (morning, evening and night) was assessed in the study. The relationship was assessed using a consumer panel consisting of 125 respondents. The respondents were asked to express their preferences using a questionnaire. Results revealed that both age and gender effect on preferences for snack types and snacking time.

**KEYWORDS:** snacking time; snack preferences; age; gender; consumer panel

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## 1. INTRODUCTION

Food is mainly intended to provide energy and nutrition to the consumers, but other than that people expect satisfaction also from food. So, while having major meals to fulfill nutritional requirements, people consume snacks for relaxation and to satisfy their senses. Snacks help to release the stress and to provide pleasure. They include all the type of comfort foods, such as biscuits, chips, chocolates, ice cream, candies, etc(1). which are usually characterized by their intense sensory profiles accustomed with high fat, sugar and salt contents. And in the present snacking has become an essential element in every person's dietary behavior.

The dietary behavior of a person is directly associated with his nutrition and health conditions. There are many factors, which affect dietary behavior. Most of them are associated with the psychological conditions of the person. The dietary behavior has had a great transformation within the past few decades. This includes the constituents in the people's diets, frequency of meals, sources of the food, etc. With the increased business and stress associated with the present lifestyles, people tend to consume a higher amount of snacks and regular mini-meals, which affects markedly on their health(2). So that it is very important to study the factors associated with snacking.

The consumption of snack products has increased presently. Therefore the snacking habits have effects on the nutritional

intake, dietary patterns and the lifestyle of the consumers (3). Therefore this study was done to study the effect of demographic factors on the snacking time and snacking preference of the respondents. Age and gender are the factors considered in the study.

The preference for snack food is dependent on the lifestyle of the respondents more compared to their selections in the main meals. Snack food items are usually considered as comfort foods(4). People consume snack foods mostly to relieve stress conditions, rather than fulfilling hunger. Thus the nutrition status of the food is not much considered. Usually, snack foods are characterized by their high-calorie content, wide sensory profiles, minimal preparations, etc.

There are several important factors associated with snacking, including, types of snacks, snacking frequency, portion sizes and the snacking time. Compared to past the snacking frequency has been increased vastly among all age groups within the last few decades. And it is an important part of dietary behavior. For an instant, with aging, the energy intake of people decreases, with the loss of appetite and impairments in sensory organs(5). So that snacking has become an aid to provide the nutrition required for them. According to the studies snacking contributes approximately 17% to 22% of their daily energy and carbohydrate intake(6). So it is important to improve healthy snacking within society.

As long as snacking time is considered, Most of the time regular snacking time is considered as evening, but studies have indicated that morning snacking and late-night snacking is also prominent within some consumer groups. Selecting the right time for snacking is very important to health, as it affects the energy intake by altering the type and time of major meals.

The snacking time of an individual is affected by many factors associated with their lifestyle, such as age, gender, occupation, income, education, etc.

**2. MATERIALS AND METHODOLOGY**

The preference for the snacking time of individuals was assessed through a consumer survey. Their preference for three main times for snacking was questioned, morning, Evening and late at night. Other than that the food types they prefer to have as snacks were also asked in the survey.

The respondents for the consumer survey were selected from a semi-urban area in Homagama town, which was selected using a google map. According to the department of census and statistics, it has about 7354 residents. As declared in the ISO 5495:2005E standards, 125 panelists were randomly selected from that population for the consumer survey.

The respondents were given options to select among. The snack food types given to choose were;

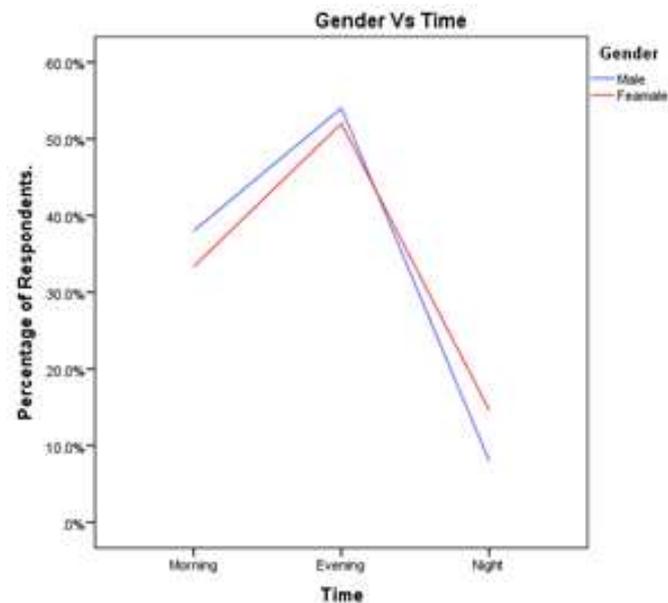
Biscuits, Potato chips, chocolate, candy, sandwiches, ice cream, fruits, and pizza. And three snacking time options were given as, morning, evening and night.

**3. RESULTS AND DISCUSSION**

The demographic factors of a person affect his choice of mealtime.

According to the fig. 1, there is a clear difference in selecting the snacking time between youngsters and elder people. Old people prefer to have snacks in the morning while other people have them in the evening. And also much younger respondents prefer late-night snacking over other times.

As indicated in the fig.2, the preference for snacking time is much similar in both gender categories. But males prefer to have snacks in the morning time than females and the night it's vice versa.



**Figure2: Gender Vs snacking time.**

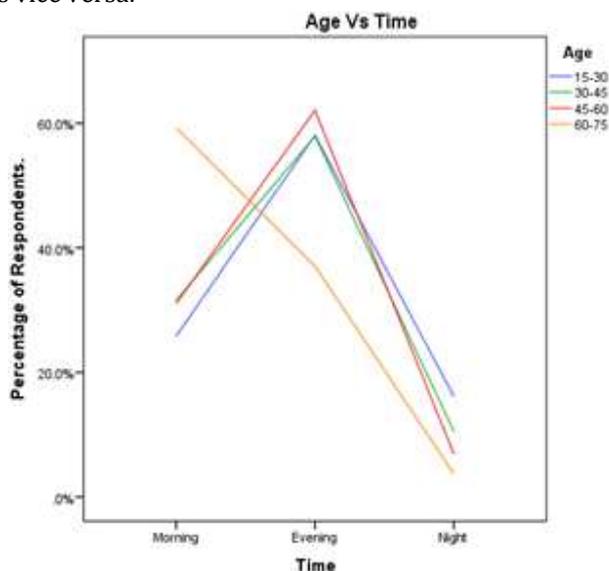
The selection of time for snacking changes with the demographic factor to which the person belongs.

The age of the persons has a clear impact on the preferred time for snacking. According to the figure, youngsters prefer either evening or late-night snacking while with aging the preference shifts towards morning snacking. There is a great difference in the lifestyles of these two age groups. Compared to other age groups people in 60-75 groups are engaged in a much-organized lifestyle compared to others(7). Most of the respondents belong to the 60-75 age category are mostly homebodies, who spend a serene lifestyle. Usually, people in the 60-75 age group are staying at home while other people are engaged in their occupations. Due to that, they need to have snacks in the morning than the other respondents. They have regular mealtimes and spend rather shorter days compared to younger people. Thus, evening or late-night snacking is not prominent among them.

And also all the age groups have less tendency to have late-night snacks. The reference for night time as the snacking time decreases with age. The younger people have higher preference, maybe because people in these age categories spend a busy and more social lifestyle compared to the elder respondents. Due to factors such as studying, hang-outs with friends, skipping main meals, etc.(8). Late-night snacking is higher in younger people than the aged people. Elderly people don't prefer late-night snacking as they spend a more serene lifestyle and they are practiced to a fixed dietary behavior and early dinner times than the younger people.

Although only a few people prefer morning time snacking, with the busy lifestyles in the day time people don't have a proper time in the morning to enjoy snacks.

When considering gender, men prefer to have snacks in the morning than women. And in the night it's vice versa. And among the respondents, women prefer evening and late-night snacking than men. According to researchers in overall also women prefer to have snacks than men. In the studies, women have stated that they have snacks due to stress or boredom or just to have indulgence(9).



**Figure1: Age Vs snacking time**

Presently, people have moved toward dietary habits of snacking rather than daily meals. Meals generally contribute more nutrient-dense foods to a diet than snacks(10)(11). Due to the changed meal pattern, there may be a loss of nutrients. To make up this loss, snack choices need to be consists of nutrient-dense food. The results indicate that most of the respondents prefer to have snacks in the evening. And some of them are used to might time snacking also. But according to dietitians, evening snacking is a habit that contributes to some health issues, such as, obesity, diabetics, etc.(12). The snacking pattern is mostly connected with the psychological state of the individuals rather than the physiological state. Due to the stress, exhaustion, loneliness, etc. (13). bound with the current lifestyle of most of the individuals, they find snacking in the evening or night as an easy way to reward themselves.

And also researches conclude that the circadian system prompts the human to reach for sweet, salty and starchy food in the evening. And it is said that with the psychological conditions in the evening the body becomes less receptive to food than in the morning, so that body needs higher-calorie junk food types to satisfy. Therefore they prefer snack types in the evening than in the morning. Practicing to evening and late-night snacking is one part of the 'night eating syndrome', which is stress-related.

But it is advised to have one- third of their daily energy intake in the morning. And it is found that by practicing to the morning snacking pattern, the snacking frequency can be reduced, throughout the rest of the day. And also by having organized eating, regular meals and snack times evening snacking can be reduced.

The preference for snack types varies with age and gender. According to table 1, female respondents prefer snack food types that are not high caloric and giving a less full feeling (ice cream, chocolate). Other than that they prefer snack food items that are healthier(14). On the other hand, males liked to have rather heavy snack types, involve more preparation and having more meal based characteristics(14). (Sandwiches, biscuits, etc.). So they selected food items with more mealy characteristics (with high carbohydrates, fat, etc.) Unlike women, they have not paid attention to the healthiness of the snack product.

Snack foods are usually combined with social gatherings with peers. The researches have shown that during social gatherings, women tend to avoid food items that are messy to consume and leave particles within the mouth after consumption and also they avoid food items with contrasting textures(15). So that females usually select finger food items like snack foods.

On the other hand, according to table 1, aged people prefer snack food, such as fruits, biscuits, and sandwiches. The preferred items are healthier and have more meal based characteristics compared to others such as sandwiches, pizza, and biscuits. And also conventional food items. And also they like healthier snack choices, for instant fruits (14). Due to increased health consciousness, old aged people reject intensely flavorful snack food which contains a high amount of fat, sugar, and salt such as potato chips. And also, as they are older people are more homebodies compared to youngsters. Thus they rarely purchase or consume

processed snack food items from the market (Brunner, van der Horst, and Siegrist, 2010). Instead, they consume snack foods prepared at home, which gives them a more homey feeling.

Table 2 indicates that, much younger respondents have exhibited a preference for snack items such as ice cream, potato chips, and chocolate. These food items are ready to eat food items which are often combined with social gathering occasions.

**Table1: Gender Vs Snacking Preferences**

Type of Snack	Females	Males
Ice cream	22.67%	10.45%
Fruits	21.33%	11.94%
Sandwich	6.67%	16.42%
Chocolate	21.33%	10.45%
Pizza	5.33%	13.43%
Biscuits	12.00%	20.90%
Potato	10.67%	16.42%

**Table2: Snacking preferences Vs Age.**

Ice Cream	16.67%	16.67%	14.71%	10.00%
Fruits	8.33%	11.90%	17.65%	30.00%
Sandwich	8.33%	14.29%	17.65%	13.33%
Chocolate	22.22%	14.29%	14.71%	10.00%
Pizza	11.11%	16.67%	8.82%	3.33%
Biscuits	5.56%	11.90%	20.59%	30.00%
Potato Chips	10.67%	16.42%	5.88%	3.33%

Youngsters, who spend social life have more access to a wide variety of snack food types. And due to the adventurous characteristics, they like to experience different food items with various sensory profiles. In contrasting to aged people they have a lower consideration towards healthy dietary habits. The social lifestyles combined with often hangovers with peers, lead them towards more snack related food items. Other than that, with the busy lifestyle related to work and studies(16), they often skip meals and mostly processed snack items, which do not involve much preparation is preferred by them.

**4. CONCLUSION**

Snacking behavior is affected by both age and gender of the respondents. With aging snack preferences move towards healthier choices, such as fruits. And females liked lighter snack foods than males (fruits, ice cream and chocolate). Most of the respondents liked to consume snack in the evening time. When considering the late night snacking younger respondents and females preferred night time snacking than the others.

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