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A Case Study of Fast Food Consumption among the College Students in Semi-Urban Area, West Bengal

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Abstract

Fast food is widely favoured by the younger generation because it is easily accessible, affordable, and convenient to carry which has numerous negative impacts on human health. The present study was conducted to analyse the eating habits of college students in relation to fast food. In this survey study, to utilized multiple choice questionnaires to gather data and analyse 50 students, comprising both boys and girls in semi urban college of Paschim Bardhaman, West Bengal. Results revealed that majority of the participants (86%), reported that fast food was their favourite type of food. Regarding the potential negative effects of fast food, 47% of respondents were unaware of the associated risks. When asked about their weekly fast food intake, 32% reported consuming it thrice a week, while 30% indicated consuming it once and twice a week. In addition, a significant proportion of students, specifically over 35%, lacked knowledge about the various chemicals found in fast food. Furthermore, a considerable 24% of students were only able to identify half of the chemicals present in fast food. The present findings serve as foundation for future investigations in the influence of early exposure to fast food education on the food choices made by children as they mature.

Keywords: Fast food, college students, eating habit, food effects

Introduction

Fast foods have become an important part of many young modern diets, particularly in developing countries. The consumption of fast food has significantly increased among children in India, becoming a notable aspect of their diet. Recently, the consumption of fast food is considered a significant public health issue (Jaworowska *et al.*, 2013) [18]. The consumption of fast food often involves the addition of excessive amounts of fat, saturated fat, refined carbohydrates, and sodium. As a result, the intake of calories is increased while the overall quality of the diet is diminished (Todd, 2017, Rosenheck, 2008) [32, 27]. Fast food is typically lacking in nutrients and high in energy, which means that frequent consumption can lead to weight gain and an increased risk of obesity (Sarikaya *et al.*, 2021) [29]. Moreover, numerous research studies have documented a correlation between the consumption of fast food and various sociodemographic factors. These factors as indicated by previous studies include age (Dunn *et al.*, 2021) [10], ethnicity or nationality (Abdullah *et al.*, 2015; Guiné *et al.*, 2020) [1, 14] and marital status Dave *et al.* (2009) [12]. Furthermore, educational level has been shown to have an impact in earlier studies (Abdullah *et al.* (2015) [1] and Moore *et al.* (2009) [22]. In addition, family income has been found to be associated with fast food intake (Dave *et al.*, 2009; Fryar *et al.*, 2018) [11, 13]. Moreover, "taste, time, money, cleanliness, and hygiene (Narayan and Prabhu, 2015; Majabadi *et al.*, 2016) [26, 20], and social interaction

(Anitharaj, 2018) [2] are the factors that have influenced students' preference of fast food. Furthermore, people primarily visit fast food restaurants for get-togethers, parties, and to enjoy the taste of the food (Anitharaj, 2018) [2]. The diseases like, obesity, diabetes, and hypertension may be caused by a high rate of fast food consumption (Seo *et al.*, 2011) [30]. On the other hand, fast foods are convenient and cost-effective for people who lead busy lives, but they are high in saturated fat, sugar, salt, and energy (Wellard *et al.*, 2012; Wilcox *et al.*, 2013; Almiron-Roig *et al.*, 2013; Roe *et al.*, 2013) [33, 34, 3]. Fast food availability is positively associated with obesity (Dunn *et al.*, 2012) [13] and is regarded as one of the primary drivers of obesity rates (Currie *et al.*, 2010) [6]. The affordability and convenience of fast food, coupled with its lower price, have contributed to its increasing popularity, especially among individuals in their teenage and young adults (Cotti and Teft, 2013; Seo *et al.*, 2011) [7, 30]. In contrast, correlation between fast food consumption and lower educational levels as well as lower family income has been reported in previous studies (Dave *et al.*, 2009; Moore *et al.*, 2009) [11, 22]. Conversely, contrasting findings have emerged in other research (Abdullah *et al.*, 2015; Fryar *et al.*, 2018) [1, 13]. India has one of the fastest expanding fast food markets globally, which can be attributed to its burgeoning middle-class population and changing way of life (Gopinath, 2019) [15]. Keeping this in mind, the current study was conducted to determine college students' food preferences towards fast food

products. As people's lifestyles continue to evolve, the demand of fast food products is on the rise. This trend is particularly evident among college students, who are increasingly turning to fast food as a convenient and affordable option. To better understand this phenomenon, the present study seeks to investigate the eating preferences of college students when it comes to fast food items.

Methods

A pilot study was carried out to assess the questionnaires of the prevalence of fast food consumption among semi-urban college students. A survey was conducted among 50 students, comprising both boys and girls, from semi-urban Kulti colleges in Paschim Bardhaman. The survey aimed to test several multiple choice questionnaires related to fast food consumption among undergraduate students of Kulti College. The questions were mostly categorized into three options-yes, no, and can't say. After the collection of responses then data were tabulation and prepared graphs using Microsoft Excel. Furthermore, the data was subjected to analysis by representing it as percentages and mean values.

Results and Discussion

In this study, participants belonged to the age group of 18-21 years where male and female respondents was 24% and 76% respectively. The present study indicated that fast food consumption is higher among female students compared to male students. This finding aligns with the observations made by Syafiqah *et al.* (2018) [31]. Moreover, several factors like taste, time, money, cleanliness, and hygiene that influence students' attitudes towards fast food and interestingly, male college students were found to consume more fast food than female peers. (Narayan and Prabhu, 2015) [26]. Fig. 1 displayed graphical diagram regarding trends of fast food consumption of the survey data. Regarding harmful effects of fast food, 54% of the respondents were found agree whereas 20% responded were unaware of these effects and 26% can't say (Fig. 1a). In this study regarding unaware of chemicals present in fast food corroborated with Kumar *et al.* (2013) [20] who reported that 31.87% of their respondents were unaware of the negative effects of fast food consumption. In earlier study revealed that a significant portion of participants, specifically 31.87 percent, were unaware of the negative consequences associated with consuming fast food (Dhange, and Pari *et al.* 2018) [8]. Interestingly, more than 64% of the participants expressed their preference for fast food as favourite while 16% answered opposite trends and 20% can't say (Fig. 1b). Furthermore, a significant majority of 86% of the respondents reported enjoying fast food whereas 10% not enjoyed only (Fig. 1c). In terms of the factors influencing their choice of fast food, 52% of the participants attributed it to the taste, while over 40% mentioned change in lifestyle and only 8% in time as the reason (Fig. 1d). According to Anitharaj (2018) [2] reported individuals often visit fast food restaurants not only for the tasty food but also for socializing and celebrating special occasions. According to Dunn *et al.* (2011) [9] the eating at fast-food restaurants has become a modern way of life and social behavior. This study highlights the impact of fast food on our culture and lifestyle. The responses indicate that 40% of individuals consume fast food on the roadside, while 28% do so in restaurants. The remaining 32% reported consuming fast food in other locations (Fig. 1e). In relation to the rise in gastrointestinal issues caused by the consumption of fast food, it was found that 52% of the participants responded affirmatively, while

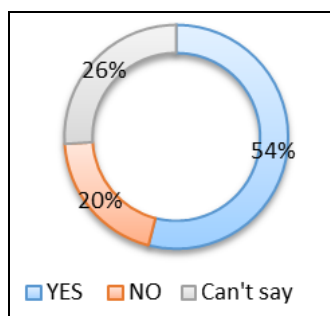
48% answered negatively (Fig. 1f). Moreover, when asked about the rise in allergies after consuming fast food, 42% of respondents replied in the affirmative, while 58% responded negatively (Fig. 1g). Furthermore, when asked about the impact of consuming fast food on weight gain, 36% of respondents agreed that it leads to overweight, while 22% disagreed. Interestingly, 42% of participants were unsure and couldn't provide a definite answer (Fig. 1h). In terms of the availability of fast food shops in India, 56% of respondents agree that there are more fast food shops in the country. However, 22% of respondents disagreed and could not provide a definitive answer, respectively (Fig. 1i). Additionally, it was evident that opinions regarding alternatives to nutritious fast food, specifically, 46% of the participants expressed agreement with the concept, while 48% disagreed. However, a small percentage of 6% remained uncertain and could not provide a definitive response (Fig. 1j). Results also showed that 26% of participants consider fast food as a substitute for breakfast, while 42% do it sometimes and 32% were not aware of this option (Fig. 1k). The present findings also reveal that when it comes to consuming fast food, an equal proportion of 30% of participants reported indulging in it either once, twice, and 30% thrice a week. According to Mwafi *et al.* (2021) [24] focusing on young men from Jordan, specifically 60.4%, consume fast food at least twice a week. Similarly, study carried out in India revealed that 85% of young adults in the country were consumers of fast food, with 17% of them consuming it on a daily basis Mahajan and Gothankar (2020) [23]. According to Arulogun and Owolabi (2011) [4], more than 80% of Nigerian undergraduates consume fast food at least once a week. Goon *et al.* (2014) [16] reported in Bangladesh that the prevalence of weekly fast food intake among young men was 55.9%. Furthermore, Abdullah *et al.* (2015) [1] conducted a study in Malaysia and found that 41% of adults aged 24-49 years were weekly consumers of fast food. Additionally, 8% of respondents were uncertain about their frequency of fast food consumption (Fig. 1l). When it comes to the frequency of fast food consumption, more than 40% of participants admitted to eating it every day, with 24% consuming it once a week and 14% indulging in it once a month. Interestingly, another 20% of the respondents were unable to provide a definitive answer (Fig. 1m). In terms of eating habits, 60% of respondents preferred to eat fast food in groups, while 24% chose to eat alone and 8% opted to eat with individuals of the opposite gender. Mwafi *et al.* (2021) [24] found no association between fast food intake and living with a family in their study. However, Fryar *et al.* (2018) [13] conducted a study that revealed a positive correlation between higher income and the consumption of fast food. Furthermore, the relationship between educational attainment and fast food intake has been a subject of investigation. While some studies reported that no significant correlation between educational level and fast food consumption, others have discovered a positive association (Hidaka *et al.* 2018) [17]. Abdullah *et al.* (2015) [1] and Miura *et al.* (2009) [25] have reported that individuals with higher levels of education tend to consume fast food more frequently. These contrasting findings suggest that the link between education and fast food consumption is complex and may be influenced by additional factors beyond educational attainment alone. Additionally, 8% of the respondents were unable to provide a definitive answer (Fig. 1n). Furthermore, when considering the timing of fast food consumption, 42% of participants reported eating it on average during snack time, 26% during lunch, and 24% during breakfast. However,

the consumption of fast food during dinner was only reported by 8% of the respondents (Fig. 1o). According to the survey findings, it was discovered that over one-third (34%) of students lacked awareness regarding the chemicals contained in fast food. Conversely, only 42% of the participants demonstrated knowledge about half of the chemicals commonly found in these food items. Meanwhile, a quarter (24%) of the participants were unable to provide response regarding their level of knowledge on the matter (Fig. 1p). In relation to the addiction to fast food, it was found that 50% of the respondents answered affirmatively, while 28% responded negatively. On the other hand, 22% of the participants were unable to provide a definite response (Fig. 1q). These findings highlight the need for greater awareness and education regarding the potential health risks associated with consuming fast food. In terms of buying fast food, the majority of respondents, which is 50%, revealed that they usually make their purchase between 6 to 9 pm. Meanwhile, 12% of the respondents stated that they buy fast food between 3 to 6 pm, and 14% between 12 noon to 3 pm. However, only 9% of the respondents buy fast food starting from 10 pm onwards, as indicated in Fig. 1r). Variations in the frequency of fast food consumption across different nationalities can be attributed to differences in environmental exposure, including the availability and accessibility of fast food establishments in both Saudi Arabia (KSA) and their respective home countries (Boone-Heinonen *et al.*, 2011; Kalnina *et al.*, 2022) [5, 19]. The current survey revealed that the frequency of consuming fast food, which has been associated with an increased risk of several diseases such as obesity (14%), blood pressure (10%), skin dry (18%), hair fall (10%), teeth decay (14%) and eye problem (8%) among the college students (Table 1). The

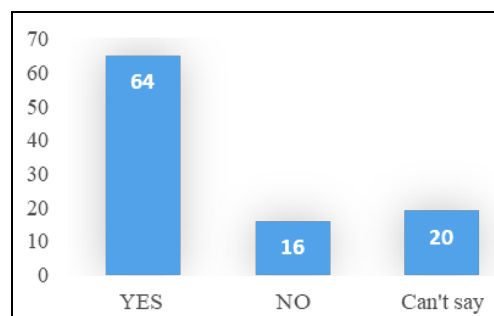
relationship between fast food consumption and obesity has been reinforced by numerous previous studies, as emphasized by Sarikaya *et al.* (2021) [29]. These studies highlight the influence of environmental factors on individuals' dietary choices, indicating that the presence of fast food options plays a significant role in shaping consumption patterns. While the studies mentioned above provide valuable insights into the relationship between fast food and various factors, further research is needed to fully understand the effects of fast food on our health and well-being. This suggests that fast food serve as a popular meeting spot for people of all ages and backgrounds.

Table: 1 Respondents pertains to the various attributes of clinical symptoms after consumption of fast food.

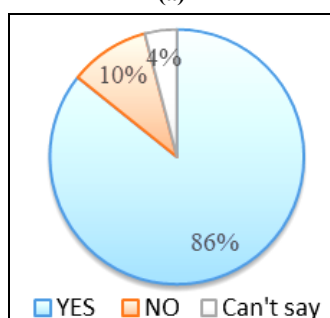
Clinical Study	No. of Respondents (N=50)	Percentage of Respondents
Eye	4	8
Teeth	7	14
Nail	2	4
Tounge	1	2
Dry skin	6	12
Hair fall easily	5	10
Hair dry	9	18
Blood pressure	5	10
Obesity	7	14
Jaundice	2	4
Diarrhoea	4	4



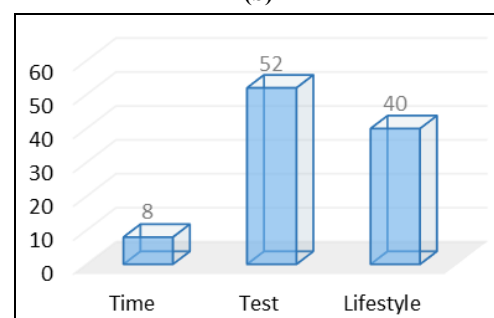
(a)



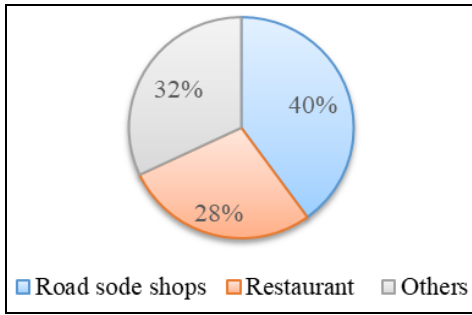
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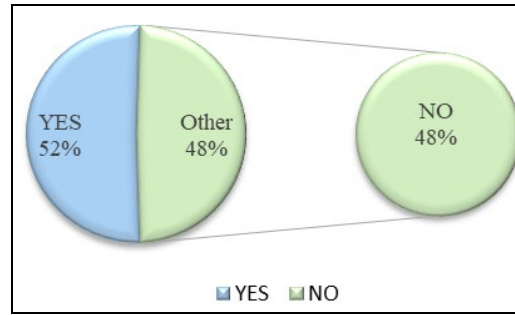
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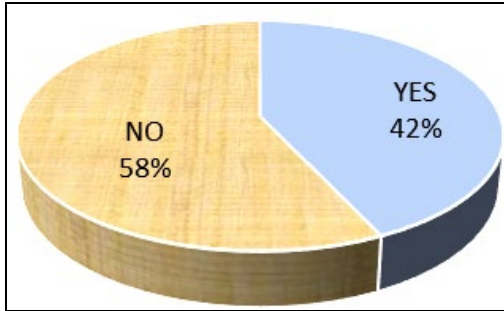
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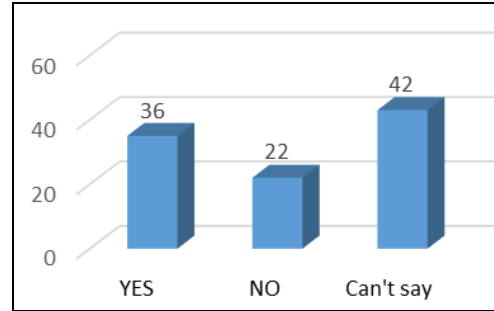
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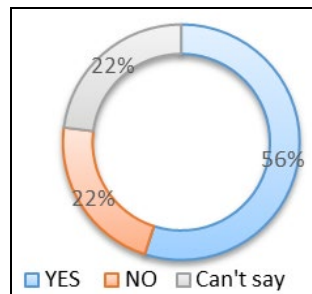
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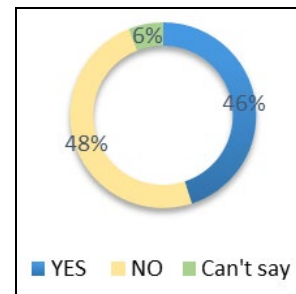
(g)



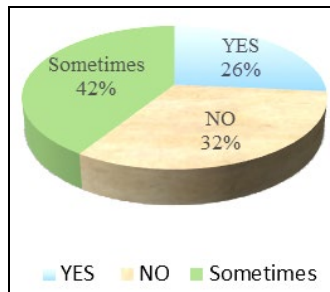
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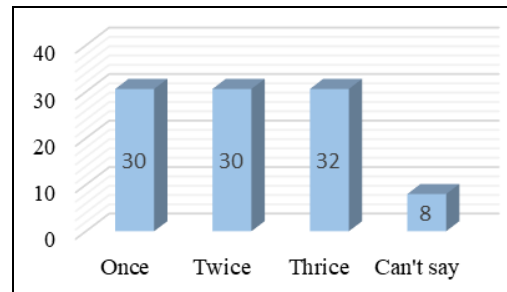
(i)



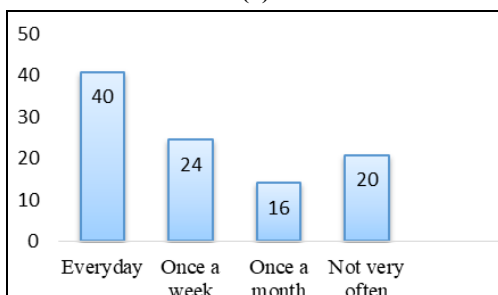
(j)



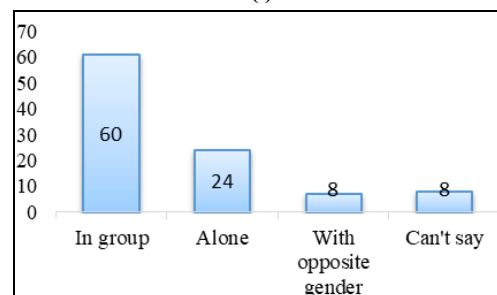
(k)



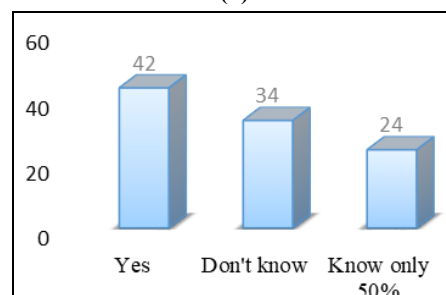
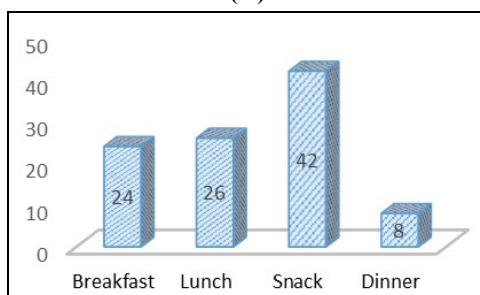
(l)



(m)



(n)



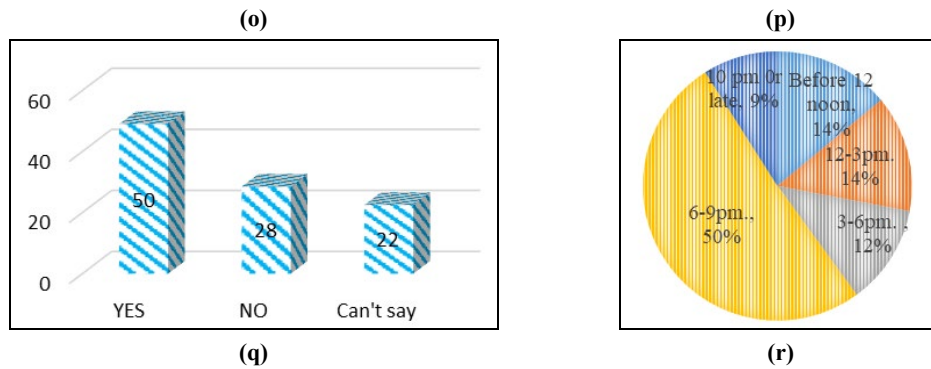


Fig 1: Respondents' data regarding intake of fast food as a) harmful effect, b) favourite, c) enjoy d) choice, e) eating preference, f) GI tract problem, g) allergy effect, h) increase overweight, i) shops in India, j) healthy food, k) alternative to breakfast, l) average intake in a week, m) eating habit, n) eating group, o) time of eating, p) aware about safety level, q) addiction and r) purchase time.

Conclusion

The findings in this study overall concluded that the choice to consumption of fast food is not influenced by demographic factors such as age or gender, but rather by personal preferences and financial resources. The survey results will play a crucial role in developing effective strategies to combat and manage obesity caused by fast food consumption within the target group. Although the detrimental impact of fast food on human health is widely recognized, its consumption continues to increase rapidly. It is crucial to address this issue by implementing educational initiatives and making necessary changes in legislation to decrease fast food consumption in the coming years. Based on the present findings suggested that the need for effective policy measures and implementation of an awareness campaign to reduce the consumption of fast food in the future and to educate individuals about the harmful effects of fast food. This study's findings have the potential to increase awareness among students about the detrimental effects of fast food consumption. The outcomes of this investigation will contribute to children's ability to adopt accurate dietary habits.

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