Factors Influencing Undergraduate Students' Motivation for Junk Food

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Abstract

Consuming junk food is linked to several health problems, including obesity, diabetes, heart disease and cancer. The objective of this study was to examine the undergraduates students' motivation for junk food. This study applied a quantitative research design to examine undergraduate students' motivation towards junk food choices and the resulting contentment. A survey instrument was employed to collect comprehensive data on factors influencing student's motivation, using a descriptive statistical analysis method. A representative sample of two hundred participants was selected through a simple random sampling technique.

The results of this research indicate a positive association between prioritizing healthy and quality food and convenience food that tends to challenge a healthy diet and undergraduate students' motivation for junk foods. The results further show a negative association between guardians' influence, easy access to junk food, college regulations, attractive adds, health impact, the decision to buy junk food and motivation of undergraduate students on junk foods.

The implications of this study would benefit policymakers, researchers, academicians, college leaders, teachers and faculty members of educational institutions to understand the current trends of undergraduate student on junk food consumption. Furthermore, the results add new literature on the motivation of junk foods among undergraduate students in the Neplese context. Future research is expected to examine the influencing factors to consume junk food in detail and large scale research.
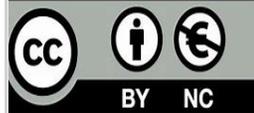
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Introduction

The term "junk food" refers to food that is rich in calories, fat, sugar, and salt but lacks substantial nutritional content. Junk foods available in Nepal are candy, chips, fast food, soda and packaged snack foods (Health Direct, 2018). It is widely recognized and used in popular culture, but it doesn't have a strict scientific definition (Health Direct, 2018). Junk food consumption has become a global phenomenon, with people of all ages and backgrounds indulging in unhealthy food choices. Various factors on people's motivation to consume junk food, including environmental factors, such as the availability and accessibility of junk food, individual factors, self-control, and stress, are vital indicators (Bahadoran, Mirmiran, & Azizi, 2015). Sapkota and Neupane (2018) explored the factors influencing customer satisfaction with fast-food restaurants, which are a major source of junk food. The same study among college students found that several factors, such as food quality, service quality, and price level were important in shaping customer satisfaction with fast-food restaurants. Despite the government's efforts to promote healthy eating habits, consuming junk food remains prevalent, particularly among younger generations (Karki, Thapa, Sangroula, 2022).

Liu et al. (2021) highlighted that taste and flavour, availability and accessibility, and quality and value of junk food attracted customers to consume it. Deliens, Clarys, De Bourdeaudhuij and Deforche (2014), found an association between the influence of friends and relatives and the motivation of undergraduate students on junk foods and their satisfaction. Kemp, Bui & Grier,(2013) highlighted that both psychological and social elements influence eating patterns and excessive food intake. Particularly, the experience of individuals who classify themselves as emotional eaters demonstrates that adverse emotions, anticipatory thoughts and repetitive tendencies significantly contribute to the consumption behaviours related to food. Molenaar, Saw, and Brennan (2021) indicate that socially compelling food advertisers to normalize products and enhance their appeal to consumers, disregarding potential health consequences.

Consuming junk food is linked to several health problems, including obesity, diabetes, heart disease and cancer (World Health Organization, 2000). Furthermore, unhealthy diets, including the consumption of junk food, are the leading cause of death and disability worldwide. Understanding the earlier mentioned factors is essential for developing effective interventions that promote healthy eating habits and reduce the negative health impacts of junk food consumption. Therefore, this study examines the factors influencing undergraduate students' motivation to consume junk food in Nepal.

Rational of the Study

This study's implications are useful for the various stakeholders. Firstly, understanding the factors that can help individuals to make healthier food choices and resist cravings. Secondly, businesses in the food industry can use this understanding to create innovative products that identify to their customer's preferences. Thirdly, policymakers can make informed decisions about food labelling, taxation, and regulations. Lastly, advertising and marketing departments can utilize this knowledge to develop more effective new strategies and promoting healthier food choices. Overall, the study's significance lies in its potential to improve public health and benefit various stakeholders, including policymakers, teachers, educational institutions, the food industries, advertising departments, and the public.

Aims of the Study

This study aims to identify the factors influencing undergraduate students' motivation to junk food which could involve exploring various factors such as food taste, advertising, convenience of food and influence by friends, family and relatives.

Primary research question

What is the association between the influencing factors and motivation of undergraduate students on junk foods and their satisfaction?

Literature Review

This section focuses on the previous research findings in the related literatures of junk foods on different perspectives.

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a psychological theory that elucidates human behavior through the examination of individuals' attitudes, subjective norms, and perceived

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behavioral control (Verma & Chandra, 2018). According to this theory discussed earlier, the three elements play a critical role in shaping a person's intentions, which subsequently exert an impact on their actual concern on consuming food.

The Principles of TPB

Attitude

Attitude refers to an individual's evaluation of behaviour, whether it is positive or negative. It encompasses beliefs about the outcomes of the behaviour and the overall value placed on those outcomes (Bohara et. al., 2021).

Subjective Norms

Subjective norms are the perceived social pressures and expectations that influence an individual's behaviour. They include the beliefs about how essential others (such as family, friends, and society) would like them to behave and the motivation to comply with these expectations. (Sus & Drew, 2023)

Perceived Behavioral Control

The level of perceived influence over one's behaviour can significantly explain the variation in intentions and actions. Nevertheless, the unclear nature of perceived behavioural control has often caused doubts and hindered behavioral advancement. In the Theory of Planned Behavior, it is essential to consider the control components when assessing perceived behavioral control, which should include items that gauge both self-confidence and the degree of controllability (Ajzen, 2002).

Intentions

Intentions play a critical role in the TPB, serving as a core concept that reflects an individual's preparedness to partake in a particular behavior. Constumers' consumption intentions are influenced by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991).

Actual Behavior

In TPB, actual behavior serves as the ultimate outcome, signifying the observable actions or decisions taken by individuals. The principles of actual behavior collectively clarify how attitudes, subjective norms, and perceived behavioral control influence an individual's consumption intention to engage in a specific behavior, thereby impacting their subsequent actions (Wiley Online Library, 2019). The TPB offers a comprehensive framework for comprehending and forecasting human behavior across diverse domains, including health, consumer choices, and social interactions (Bohara et al., 2021).

Theoretical Framework
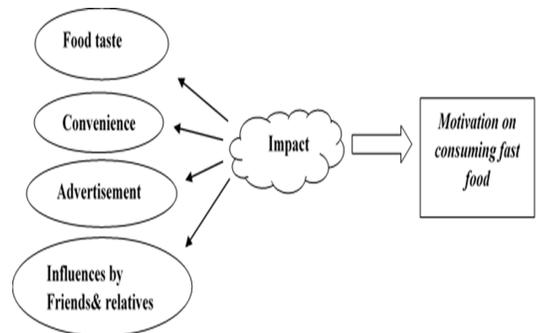
Figure 1: *Theoretical Framework of the Study (C.F., Poudel et al., 2018)*

The literature review in this study has concentrated on examining the determinants of junk food motivation among undergraduate students. This review has specifically highlighted objectives of the studies, methodologies employed, consequential findings, identified research gaps, and the references of the study (see Table 1).

Summary of the Previous Studies

The results of this review indicate that both the school environment and external factors have a substantial impact on students' consumption intention of junk food. Specifically, previous studies noted a remarkable issues in junk food consumption as students progressed from lower to higher grades, with adolescents in both public and private schools demonstrating high consumption rates. Additionally, the study conducted in South Asia identified various personal, environmental, and fast food-specific factors contributing to college students' frequent consumption of fast food (Bohara et al., 2021; Sus & Drew, 2023). Sus and Drew (2018) found that a significant portion of sampled students were identified as high consumers of junk food, with multiple interconnected factors influencing these unhealthy dietary choices (see Table 1).

The review summary importantly highlighted that Theory of Planned Behavior (TPB) emerges as a robust framework for effectively predicting individuals' intentions to consume fast food and their subsequent behavior. Interestingly, the review

Table 1: *Review of Previous Studies' on Factors Influencing Customer Motivation to Junk Food*

References	Objective	Method	Findings	Research gap
(Acharya et al., 2021)	To examine junk food consumption & its associated factors among adolescent students	Quantitative method	Consumption of junk foods among adolescent students was significantly high in both public school & private school adolescents.	Most participants were late adolescents, female, living in nuclear families, and mostly living with parents. It is important to note that this distribution may restrict the generalizability of the findings to a broader population.
Bohara et al. (2021)	To examine the perception and factors influencing junk food consumption among Pokhara Valley, Nepal private schools.	Chi-square test with quantitative method	Indicated an increase in junk food consumption as students progressed from lower to higher grades.	The focus on only private school children limits the generalizability of the findings to students from public schools, public &private college (bachelor's level students)
Deliens et al. (2014))	To examine the factors that U.S. college students perceived as influencing healthy eating behaviours	Qualitative method	Unhealthy dietary habits are widely recognized as a significant factor in adverse weight status outcomes during young adulthood.	This study concluded that these results cannot be automatically generalized to the entire population of university students when considering the specific and limited sample of participants.
Didarloo et al.2022)	To examine the factors influencing the intention to use fast foods and behaviour of fast-food intake among students based on the theory of planned behaviour.	Mixed methods approach	TPB is a robust framework for accurately predicting an individual's intention to consume fast food and subsequent behaviour	Combining quantitative measures with qualitative methods such as interviews or observations would provide richer insights and enhance the overall validity of the findings
Hsieh (2004)	To examine the factors influencing the selection of healthy and unhealthy snacks among students.	Qualitative method	The students exhibited a diverse range of food consumption patterns	This study was a small sample size, which may affect the generalizability of the findings. Additionally, while this study examined healthy and unhealthy snacks, my research specifically focused on consuming junk food.
Poudel et al. (2018)	To examine the factors associated with junk food consumption among teenage students in urban schools, specifically focusing on students in grades 6, 7, & 8.	Chi-square test with quantitative method	Both school and environment were significant influencing factors for students' junk food consumption.	The study focused on a specific age group (grades 6, 7& 8 students), but my study focused on bachelor's level students.
Rodrigues et al. (2017)	To examine the association between meal habits and diet quality in Brazilian adolescents.	Quantitative method	A parallel exists between the daily consumption of meals characterized by healthier eating practices and a more vital adherence to traditional Brazilian food health.	The study's findings may not fully reflect the current dietary behaviours of adolescents due to potential changes in dietary habits and patterns since the study was conducted.
Saha et al. (2021)	To examine the gathered evidence on fast food consumption patterns and factors that influenced fast food consumption among college students in South Asia.	Qualitative method	The study found that various personal and environmental factors and specific characteristics of fast food contribute to frequent consumption among college students in South Asia.	The study identifies the patterns of fast-food consumption and factors influencing fast-food intake among college students, but my study only focuses on bachelor's level students.
Sapkota and Neupane (2018)	To examine the junk food consumption and patterns of consumed junk food among secondary-level students.	Quantitative method	A higher percentage of girls reported consuming junk food than boys while also demonstrating awareness of the meaning and implications of junk food.	While this study concentrated on secondary-level students, my research explicitly targets bachelor's level students.
Sogari et al. (2018)	To examine the factors that U.S. college students perceived as influencing healthy eating behaviours.	Qualitative method	Unhealthy dietary habits are widely recognized as a significant factor in adverse weight status outcomes during young adulthood	This study is that these results cannot be automatically generalized to the whole population of university students when considering the specific and limited sample of participants

results also revealed that a higher percentage of girls reported consuming junk food compared to boys, while also showing an understanding of the concept and implications of junk food. They highlighted a wide range of food consumption patterns. As students transition from secondary school to university, where their independence significantly grows, they grapple with the ongoing challenge of making healthy food choices. The review summary importantly highlits that unhealthy dietary habits are widely acknowledged as a significant contributor to adverse weight outcomes during young adulthood. A clear link exists between daily consumption of meals characterized by healthier eating practices and a stronger adherence to traditional Brazilian dietary health (see Table 1).

Methodology

Methodology is a mirror of whole research approach using different research philoshopies, methods, tools and techniques in order to under to understand the research phenomena clearly.

Quantitative Method

Quantitative research is particularly valuable when trying to quantify trends, attitudes, opinions, behaviours, and other measurable aspects of a subject. It provides a rigorous and objective

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approach to studying large populations and making statistical nferences. However, it may not capture the richness and context of individual experiences that qualitative methods can provide. Researchers often combine quantitative and qualitative methods to gain a comprehensive understanding of a research question or topic (Adhikari, 2022; Apuke, 2017).

Sampling Population

The sampling population includes the larger group of individuals elements and researchers want to study, enabling them to obtain more reliable and precise findings through a convenient data collection process (Adhikari, 2022). For this research, a sample of 200 undergraduate students was randomly chosen from different faculties from two colleges in Nawalparasi, namely Madhyabindu Multiple Campus and Oxford College of Engineering and Management. Only two colleges were selected because Madhyabindu campus is a representative public institution in Nawalparasi, while Oxford College represents private college in Nawalparasi district. Many efforts were made to ensure that the sample closely resembled the overall population as much as possible.

Data Analysis Methods

The data analysis in this study primarily focuses on conducting original research to investigate the relationship between influencing factors and the motivation of undergraduate students for junk food consumption. The analysis primarily follows the application of statistical techniques to explore the connections between the independent and dependent variables. To analyze the collected data, IBM SPSS Statistics 26 version for Windows was utilized. This choice was made due to its cost-effectiveness and professional capabilities, making it a suitable tool for researchers. It is derived from IBM's professional version. Initially, an editing process was applied to the collected data, which involved excluding incomplete information. Subsequently, the Principal Component Analysis (PCA) method was employed to identify crucial factors responsible for driving students' attraction to junk food consumption which were then transformed into different subscales, with mean scores, standard deviations, and alpha values calculated for each subscale to facilitate further analysis. To assess the impact of the independent variables on the dependent variable, the Binary

Logistic Regression (BLR) Method was employed (Adhikari, 2023).

Binary logistic regression is a suitable data analysis method for examining the influencing factors and motivation of undergraduate level students on junk foods and their satisfaction to analyze the relationship between a binary dependent variable (in this case, motivation) and one or more independent variables (food taste, convenience, advertisement and influential by friends and relatives). The logistic regression analysis examined the association between the influencing factors and motivation of undergraduate level students on junk foods and their satisfaction.

Reliability and Validity of Results

This section emphasizes the importance of reliability and validity in evaluating the quality and accuracy of survey questionnaire data. Reliability refers to the consistency and stability of the measurements, while validity measures how accurately the questionnaire assesses its intended purpose (Adhikari, 2022). High Cronbach's Alpha values indicate strong reliability of collected data. Validity can be assessed through content validity, ensuring all relevant aspects are covered, and construct validity, which examines combination with theoretical expectations and correlations with similar constructs. This study underscores the need for careful planning, testing, and statistical evaluation to ensure the questionnaire's excellence and the accuracy of the collected information. Reliability and validity would be beneficial to elaborate on the specific data collection methods employed. A field survey typically involves direct interaction with participants. The study's population is unspecified, there is a lack of clarity about the target group or individuals (Adhikari, 2022).

Results and Discussion

This section summarizes the overall results of each section and signifies the reach discussion on the related field.

Junk Food Taste

The association between food taste, motivation, and consumption of junk foods among undergraduate students can differentiate based on individual preferences and factors influencing food choices. While specific research focused on this exact topic could be limited, provide a general

understanding of the association based on existing knowledge: Food taste can significantly influence motivation for consumption intention on certain foods, including junk foods. The deliciousness and enjoyable taste of junk foods, often high in fat, sugar, and salt, could create a positive sensory experience and increase motivation on junk food among undergraduate students (Sharma, 2022; Sapkota & Neupane, 2018).

The PCs were formed through linear combinations of the original variables and were ordered based on the variance they account for within the data. The primary component, in particular, explains the most substantial variance in the data, with subsequent components explaining progressively lesser variance. By retaining only a subset of the principal components that capture the majority of the data's variability, PCA effectively reduced the data's dimensionality while preserving its essential information (Cohen, Manion, & Morrison, 2011).

Association between Food Taste and Motivation of Undergraduate Students on Junk Foods

Table 2: *Mean, SD and Alpha Values of Prioritizing Healthy and Quality Food, Determination of Customers' Satisfaction, and Guardians' Influence and Easy Access to Junk Food (N = 200)*

Scales (PCs)	Mean	SD	Alpha
Prioritizing healthy and quality food	4.30	0.427	0.762
Determination of customers satisfaction	4.14	0.708	0.998
Guardians influence and easy access to junk food	4.37	0.597	0.612

The results indicate that the mean values for the three subscales were computed as 4.30, 4.14, and 4.37, indicating that the mean values are considerably above the average score of 3. Participants agreed with statements that implied the motivation for consuming junk food was primarily driven by satisfying cravings. Instead, they placed a strong emphasis on taste as a major factor influencing their decision to indulge in junk food(see Table 2).

Taste emerged as the primary consideration even though participants were aware of the importance of maintaining a healthy diet. Additionally, the results show that participants often recommended the taste of junk food to their friends. Furthermore, the results reveal that participants agreed with statements indicating that the taste of junk food was duplicated and that it solely determined customer satisfaction. They also agreed with the idea

that they chose healthy food over junk food due to ease of access and parental influence, emphasizing their preference for tasty junk food (Adhikari, 2023).

Binary Logistic Regression Analysis

Binary logistic regression is a suitable data analysis method for examining the influencing factors and motivation of bachelor's level students on junk foods and their satisfaction to analyze the relationship between a binary dependent variable (in this case, progression delay or success) and one or more independent variables (food taste, convenience, advertisement and influential by friends and relatives). Here is an explanation of how binary logistic regression can be used in analyzing the motivation of bachelor's level students on junk foods and their satisfaction.

Table 3: *Logistic Regression Analysis of Block 1*

Model	Chi-square	df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	22.78	3	0.001	10.9 %	15.4%	218.438
Hosmer and Lemeshow test	12.76	8	0.127			

The logistic regression analysis examined the association between the influencing factors and motivation of bachelor's level students on junk foods and their satisfaction The tabulated data of Block 1 were evaluated using chi-square, df, Cox and Snell's R Square, Nagelkerke's R square, and 2 log-likelihood.The BLR outputs showed the overall model summary statistics for each model. The table labelled Omnibus test of model coefficients induces the Chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [$\chi^2 2 (3) = 22.783$, p = <.001, -2LL = 218.438]. The results showed that the Block 0 Model accurately predicted 70.2 % of 200 responses. But Block 1 Model improved compared to the block 0 Model, which included all the variables and had an accurately classified rate of 75.8 %. Including the validation variable in Block 1 benefited the models as it correctly classified a higher percentage of 200 cases than Block 0 models (see Table 3).

The results show a positive association between prioritizing healthy and quality food and motivation of undergraduate level students on junk foods (p < 0.05, odds ratio = 2.524 > 1, B=

Table. 4: *Logistic Regression to Find the most Influencing Factors for Junk Food Consumption (N = 200)*

Independent variables	B	S.E	Wald	df	P-value	Exp(B)	95% C.I for Exp(B)	
							Lower	Upper
Prioritizing healthy and quality food	0.825	0.429	4.664	1	0.031	2.524	1.089	5.875
Determination of customers satisfaction	0.354	0.243	2.120	1	0.145	1.145	0.885	2.296
Guardians influence and easy access to junk food	-0.502	0.195	6.637	1	0.010	0.605	0.413	0.887
Constant	-6.431	1.914	11.284	1	0.001	0.002		

$0.825 > 0$).

The results further show no association between the determination of customers' satisfaction and the motivation of undergraduate students on junk foods ($p > 0.05$). However, the results reveal a negative association between guardians' influence and easy access to junk food and motivation of undergraduate students regarding junk foods ($p < 0.05$, odds ratio = $0.605 < 1$, B = $-0.502 < 0$) (see Table 4).

Convenience

Convenience is a crucial feature of fast food motivation, as it is readily accessible in today's marketplace. The more comprehensive spread presence of fast-food outlets reduces the overall cost of obtaining a meal leading to increase consumption; through analyzing market-level data over two time periods, factors like availability, prices, income and demographics have a direct link between greater availability and heightened consumption levels (Jekanowski, Binkley & Eales, 2017).

Association between Convenience and Motivation of Undergraduate Students on Junk Foods

The result indicates that the mean values of the two subscales are calculated as 4.15 and 4.20, signifying mean values are more significant than average (3) values. The participants agree with the statements that the distance of junk food collected determines their interest in buying junk food, receptionists' politeness determines the customer, and there are too many options for junk food in their community.

Additionally, the results indicate that the participants agreed with statements that they prioritized convenience over healthier options when making decisions about food. They believed that increasing the availability of healthier food options was associated with numerous convenience factors. Moreover, they felt that the availability of junk food made it challenging to maintain a

healthy lifestyle, and they noted the presence of vending machines selling junk food in workplace environments. They feel convenience when they use ready-made food during busy studies, and junk food is easily accessible in their local area(see Table 5)

The BLR outputs show the overall model summary statistics for each model. The results show that the Block 0 Model accurately predicted 54.5 % of 200 data. Block 1 models improved compared to the block 0 models, which included all variables and had an accurately classified rate of 56.5 %. Including the validation variable in Block 1 benefited the models as it correctly classified a higher percentage of 200 cases than Block 0 models (see Table 6).

The results show no association between food store distance and receptionist's politeness and motivation of undergraduate students on junk foods ($p > 0.05$). The results further show a positive association between convenience food challenge healthy diets and motivation of undergraduate students on junk foods ($p < 0.05$, odds ratio = $2.852 > 1$, B = $0.948 > 0$) (see Table 7).

Table 5: *Descriptive and Alpha Value for the Factors of Junk Food Taste (N = 200)*

Subscales (PCs)	Mean	SD	Alpha
Food store distance and receptionist's politeness	4.150	0.712	0.990
Convenience healthy food	4.209	0.434	0.715

Advertisement

The correlation between advertising, motivation, consumption of unhealthy foods, and satisfaction among undergraduate students can vary depending on individual preferences and factors influencing food choices. Although there is limited specific research on this precise topic, a general understanding of the association can be derived from existing knowledge (NCBI, 2019). Advertisements have a significant impact on motivating individuals to consume, particularly junk foods. Studies have indicated that children exhibited a remarkable 45% increase in consumption when exposed to food advertising (Bahadoran, Imrmiral & Azizi, 2015 et. al., 2015).

Table 6: *Regression Analysis of Block 1*

Model	Chi-square	Df	P-value	Cox and Snell's R Square	Nagelkerke's R square	–2loglikelihood
Omnibus tests of model coefficients	7.641	2	0.022	3.7%	5.0%	267.995
Hosmer and Lemeshow test	7.754	8	0.458			

Table 7: *Logistic Regression Analysis on Predicting the Impact of Convenience on Motivation (N = 200)*

Independent variables	B	S.E	Wald	df	P-value	Exp	95% C.I for Exp(B)	
							Lower	*Upper*
Food store distance and receptionist's politeness	0.047	0.14	0.100	1	0.75	1.048	0.783	1.405
Convenience food challenge healthy diets	0.948	0.35	7.184	1	0.00	2.852	1.290	5.165
Constant	-4.178	7.77	7.775	1	0.00	0.015		

At the same time, adults demonstrated higher consumption of both nutritious and unhealthy snack foods after being exposed to snack food advertisements. Additionally, the influence of food advertising extended beyond the promoted products, leading to increased consumption of items not even featured in the advertisements. Notably, the above mentioned effects were not influenced by reported hunger or other conscious factors, emphasizing the subconscious nature of the influence exerted by food advertising (NCBI, 2019).

Association between Advertisements and the Motivation of Undergraduate Students on Junk Foods

Table 8: *Descriptive Values for Adv. Factors (N = 200)*

Subscales (P.C.s)	Mean	SD	Alpha
Ads, college regulations, temptation resistance influence and health impact	4.097	0.474	0.769
Impact of food advertising, amplify healthy choices, not junk food	4.265	0.750	0.991

The results indicate that the mean values of the two subscales are calculated as 4.09 and 4.26, signifying mean values are greater than average (3) values. The participants expressed their agreement with several statements. They agreed with the idea that they used information to decide which junk food to purchase, and they also agreed with the notion that they frequently encountered advertisements for junk food in their local area. Additionally, they further agreed with the suggestion that there should be regulations on advertising junk food.

Furthermore, the participants indicated that they did not usually buy junk food after seeing an advertisement for it, nor did they make an effort to resist buying junk food after seeing an advertisement. They also agreed with the idea that the presence of junk food advertisements influenced their desire to consume junk food, and they did not believe that advertisements for

junk food had a significant impact on their overall health(see Table 8).

Regression Analysis

The regression analysis examined the association between the influencing factor and the impact of depression on undergraduate students' educational performance. The tabulated data of Block 1 are evaluated using Chi-square, df, Cox and Snell's R Square, Nagelkerke's R Square, and 2 log-likelihood. The Binary Regression output shows the overall model summary statistics for each of the three models. Findings of the results show the Model(1) is significant [x^2 (2) = 18.467, p = <.001 -2LL = 264.161]. The results showed that the Block 0 Model accurately predicted 70.5% of the 200 responses. Block 1 models improved compared to the Block 0 models, which included all variables and had an accurately classified rate of 73.5%. Including the validation variable in Block 1 benefited the Models as it correctly classified a higher percentage of the 200 cases than Block 0 models (see Table 9).

The results indicate a negative association between advertisements, external influence and health impact college and the motivation of undergraduate students regarding junk foods consumption (p < 0.05, odds ratio = 0.499 < 1, B = -0.695 < 0). The results show no association between the impact of food advertising, and junk food motivation among undergraduate students (p > 0.05) (see Table 10).

The results show a negative association between peer-family pressure and the motivation of bachelor's level students on junk foods and their motivation of undergraduate students on junk food motivation and their satisfaction (p < 0.05, odd ratio = 0.666<1, B= -0.406). Furthermore, the results show that there was no association between healthy food suggested by friends, consuming junk food when they are alone and the motivation of undergraduate students on junk foods and their

Table 9: *Regression Analysis of Block 1*

Model	Chi-square	Df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	18.467	2	0.001	8.8%	12.6 %	264.161
Hosmer and Lemeshow test	14,075	8	0.081			

Table 10: *LRA Predicting Motivation with Junk Food Consumption based on Advertisement Factors (N= 200)*

Independent variables	B	S.E	Wald	df	P-value	Exp	95% C.I for Exp(B)	
							Lower	upper
External influence and health impact	-0.695	0.177	15.512	1	0	0.499	0.353	0.705
Advertising & Healthy Choices	-0.108	0.161	0.454	1	0.501	0.897	0.654	1.23
Constant	-0.968	0.168	33.105	1	0	0.38		

satisfaction (p > 0.05).

Friends and Relatives, and Influence on Junk-Food Consumption

The authors can provide a general understanding of the association based on existing knowledge: influence by friends and relatives can significantly influence motivation for consuming certain foods, including junk food (Hsies, 2004).

Parents and friends significantly influence youth's eating habits, with parents traditionally studying in isolation from friends. However, the impact of friends on youth's eating behaviour differs from that of parents. While parents may encourage healthier choices, friends, particularly during collegehood, hold more significant sway due to the growing importance of social networks and their influence surpassing parental norms (NCBI, 2019).

Association of Motivation on Junk Foods with Friends, Relatives, and Influence on Junk-food Consumption

The result indicates that the mean values of the three subscales are calculated as 4.16, 4.09, and 4.15 signifying mean values are more than average (3) values. The participants agreed with the statements that a senior relative's suggestion was more influential in buying junk food. They feel pressured by their friend's relatives to eat it.

The results further show that the participants also agreed with the statements that their friend's relatives suggested that they eat junk food; they are motivated to eat healthy food despite their friends or relatives choosing to eat junk food when their friends come to their house, ate junk food because their friend's relatives prefer junk food consumed. They agreed that their friends or relatives influenced their decision to eat junk food(see Table 11).

Table 11: *Mean, SD and Alpha Value of Friends and Relative Factors*

Subscales (P.C.s)	Mean	SD	Alpha
Peer-family pressure	4.16	0.788	0.998
Social Influence on Junk Food Choices	4.09	0.464	0.659
Solo Consumption of Junk Food	4.15	0.595	0.803

Regression Analysis

The regression analysis examined the association between the influencing factors and motivation of undergraduate level students on junk foods and their satisfaction. The tabulated data of Block 1 are evaluated using chi-square, df, cox and Snell's R square, Nagelkerke's R Square, and 2 log-likelihood. The binary regression output shows the overall model summary statistics for each model. The table labelled omnibus test of model coefficients induces the chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [X^2 (3) = 8.070, p = < 0.003, -2LL = 267.556]. The classification table results showed that the Block 0 Model accurately predicted 51.8 % of the 200 data. Block 1 models improved compared to the block 0 models, which include all variables and had an accurately classified rate of 57.8 %. Including the validation variable in Block 1 benefited the models as it correctly classified a higher percentage of the 200 cases than Block 0 models (see Table 12).

The results show a negative association between peer-family pressure and the motivation of undergraduate students on junk food (p > 0.05). The other results show a negative association between the decision to buy junk food from friends and relatives and the motivation of undergraduate students on junk food motivation (p < 0.05, odd ratio = 0.666<1, B= -0.406). Furthermore, the results show that there was no association between healthy food suggested by friends, consuming junk food when they are alone

Table 12: *LRA for Friends and Relative Factors*

Model	Chi-square	Df	p-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	8.07	3	0.003	4.00%	5.30%	267.556
Hosmer and Lemeshow test	8.879	8	0.353			

Table 13: *LSA Predicting Junk-Food Consumption, Motivation based on all Factors (N=200)*

Independent variables	B	S.E	Wald	df	p-value	Exp	95% C.I for Exp(B)	
							Lower	Upper
Peer-family pressure	0.052	0.146	0.126	1	0.723	1.053	0.791	1.401
Social Influence on Junk Food Choices	-0.406	0.15	7.314	1	0.007	0.666	0.496	0.894
Solo Consumption of Junk Food	0.078	0.151	0.268	1	0.605	1.081	0.804	1.454
Constant	-0.072	0.145	0.247	1	0.619	0.931		

and the motivation of undergraduate students on junk foods and their satisfaction (p > 0.05).

Discussion

To gather survey data, a quantitative research approach was employed. The previous studies highlighted the substantial impact of college environment on students' consumption of junk food, indicating a rise in junk food consumption as students advanced from lower to higher grades. Students of undergraduate level showed high consumption of junk food, various adolescents various personal, environmental and fast-food characteristics contribute to frequent fast-food consumption among undergraduate students.

The results indicate that the prioritizing healthy and quality food, determination of customers' satisfaction, guardians' influences and easy access to junk food, store distance of food and receptionists' politeness, convenience food challenge healthy diets, ads, college regulations, temptation resistance influence and health impact, impact of food advertising, amplify healthy choices, junk food, peer-family pressure, decision to buy junk food influenced by friends and relatives and healthy food suggests by friends, consume junk food when they are alone were subscales of the survey variables. The results also indicate that the findings of this study demonstrated robust reliability and validity because the Alpha value was greater than .601).

The results highlight a positive association between prioritizing healthy and quality food and motivation of undergraduate level students on junk foods (p < 0.05). But the results show a negative association between guardians' influence and easy access to junk food and their motivation (p < 0.05). The findings of this study supported the previous findings of Sogari et al. (2018),

who highlighted that consumers were motivated to quality and healthy junk food when they were undergraduate level students.

The results highlight a positive association between convenience food challenge healthy diets and the motivation of undergraduate students on junk foods and their satisfaction (p < 0.05). The current results supported the previous study by Yarimoglu, Kazancoglu and Bulut (2019), who found an association between the convenience of healthy food (availability) and motivation of undergraduate students on junk foods in Turkey.

The results highlight a negative association between ads, college regulations, temptation resistance influence and health impact and motivation of undergraduate students on junk foods (p < 0.05). The result of this study is supported by the study of Rabeeah et al. (2022), who found that advertisement was the critical factor in motivating customers to junk food.

The results highlight a negative association between the decision to buy junk food from friends and relatives and the motivation of undergraduate students on junk food consumption (p < 0.05). The results of this study is supported by the previous studies of Hsieh (2004) and Deliens, Clarys, De Bourdeaudhuij and Deforche (2014), who found an association between the influence of friends / relatives and the motivation of undergraduate students on junk foods.

This article has mainly focused on the motivation of undergraduate students to consume junk food. It has also highlighted the factors influencing undergraduate students' motivation to junk food. The findings demonstrate that the educational setting and surrounding conditions substantially impact on students' indulgence in unhealthy snacks. Research suggests that as students advance

through their academic years, their junk food intake tends to rise. Moreover, adolescents attending both public and private schools exhibit significantly elevated levels of junk food consumption. Furthermore, the investigation uncovered that more than a quarter of the sampled students were classified as heavy consumers of junk foods, with numerous interconnected factors influencing their dietary choices towards unhealthy options (Verma & Chandra, 2018)

Employing a quantitative research design and surveyed to collect comprehensive data on the factors influencing undergraduate students' motivation to junk food. Li, Li and Li (2018) highlighted that taste and flavour, availability and accessibility, and quality and value of junk food are significant factors motivating customers to consume it. According to the findings, there was a considerable correlation between the convenience food challenge healthy diets and undergraduate students' motivation to consume junk food. But, there was no significant relationship found between food store distance and receptionist politeness and the motivation of students to consume junk food.

There was an association between prioritizing healthy and quality food and undergraduate students' motivation to consume junk food. Deliens, Clarys et al. (2014), found an association between the influence of friends /relatives and the motivation of undergraduate students on junk foods. Molenaar, Saw, Brennan, et al., (2021) indicated that socially compelling food advertisers to normalize products and enhance their consumer appeal, disregarding potential health consequences According to the findings, there was a considerable correlation between the advertisement and undergraduate students' motivation to consume junk food.

Conclusion

Advertisement has an excellent role in encouraging the consumption of junk food. As we know, advertisement helps people rely on certain products. But nowadays, advertisers advertise junk food as a healthy nutrient just because it is cheap in price and availability. Advertisers present our need to consume junk food, which influences us to use junk food more reliably. Nowadays, junk food has stairs of the amendment; advertisement has a significant role. But the impact of food advertising amplifies healthy choices, not junk food has no significant relationship between motivations to consume junk food.

In the realm of academic research, it is recommended that food companies and marketers place a greater emphasis on promoting healthier food choices. Future investigations should consider employing mixed methods research to delve deeper into the socio-cultural factors that influence preferences for junk food. Policymakers are encouraged to institute more stringent regulations governing advertising practices targeting children for junk food products. Subsequent research endeavors could explore the enduring ramifications of junk food consumption on both overall health outcomes and academic performance. A comprehensive understanding of this critical issue would be attained by adopting mixed methods approaches in future studies. Additionally, researchers are advised to incorporate larger and more diverse sample sizes, encompassing various demographics and geographic locations, in order to enhance research validity and broaden the generalizability of findings.

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