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Fast Food Choices and Mental Health in University Students of Pakistan

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Abstract

Improving the health and well-being of all university students involves promoting successful learning is becoming vital as per sustainable development agenda. The present study aims to analyze the role of fast-food consumption and mental health among university students in Pakistan by collecting the data from 405 respondents from top 10 public and private universities. Results reveal that 40% students are consuming fast food more than three times a week. Almost 60% of them reported that they are consuming un-healthy food and perceived mental stress and health issues after consuming fast food. Logit regression analysis shows that social class, healthy dietary patterns, good health, and frequency of fast food is negatively related to mental health issues while money spent on fast food is positively related to mental health. Similarly, stress by consuming fast food is also positively related to mental health issues. Findings suggest that Institutes need to collaborate with health professionals to deliver lectures in colleges and universities regarding how excessive fast-food consumption is related to mood, stress and cognition and ensure healthy eating environment in educational institutes.
Keywords: fast food; stress; mental health; dietary patterns; social class
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Mental illness is the leading cause of many physical health problems some of which may become life threatening in the long run (Patel et al., 2016). Hunger is the innate physical need all living beings are born with. The very first thing that an infant feel or react for is the need of food (Maslow, 1954). Eating habits continue to change and get modified over the period of time in different stages of life. These eating habits, more specifically dietary patterns can affect brain function and mood. For example, poor dietary habits, consuming food lacking essential nutrients, having a high glycemic products, and high intake of low quality sugars can lead to adverse mental health problems (Rehm & Shield, 2019). Childhood and adolescence are the most important stages of every individual's life because this is the period when eating habits and healthy lifestyles are developed (Arslan et al., 2023). During this period, adopting a sedentary lifestyle, lack of physical activity and poor eating habits increases the risk of developing chronic health problems such as obesity, metabolic syndrome, diabetes and cardiovascular disease in adulthood (Jiang et al., 2019).

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When the students leave home for college, they become more vulnerable to outside influences and begin to follow unhealthy eating habits ignoring the healthy ones that have been adopted while staying at home (Orji et al., 2019). As students shift from college to university, they gain a bit more independence and are continually challenged to make healthy food choices (Vashishtha et al., 2021). They face poor eating behaviors that contribute to increased body weight and other health issues (Algahtani, 2020). They make their own meal choices, which is sometimes influenced by the availability of costly fast food (Hajek et al., 2022).

Skipping meals is a common unhealthy eating habit among university students which raises the probability of poor sleeping quality (Faris et al., 2022). A significant percentage of university students, ranging from 66% to 95%, consume inadequate amounts of fruits and vegetables (Mesías et al., 2021). Low vegetable consumption can become a cause of an increased risk of chronic diseases (Ruiz et al., 2019). Encouraging university students to consume adequate amounts of fruits and vegetables may help to prevent them from different chronic diseases (Mohiuddin, 2019). The consequences of unhealthy eating habits can be severe, leading to organ failure such as the heart, intestines, liver, and kidneys (Amsalu et al., 2020).

Food is the first and basic need of human beings (Maslow, 1954). Eating is crucial for living. Hence, eating

persists as a human grows. These habits continue to get changed over the period of time and may be healthy or unhealthy depending upon various factors in terms of nutrients used in it, pattern of consumption, and amount of consumption and purpose of that eating (Chaudhary et al., 2020).

The most prevalent unhealthy eating habit observed in university students is fast food consumption (Onurlubaş & Yılmaz, 2013). In recent decades, the consumption of fast food has significantly increased among university students. Fast food is less nutritious due to its high levels of unhealthy fats and lack of essential nutrients (Janssen et al., 2018). Due to the lack of nutritional knowledge and continuous need for seeking ease in eating, university students are particularly vulnerable to the dangerous and potentially life-threatening diseases (Makiabadi et al., 2019).

Improving the health and well-being of all university students involves promoting healthy eating habits (Liberali et al., 2021). This goal is becoming vital as per sustainable development agenda 2030. Psychological issues are common among students especially in university students (Luc et al., 2019). The psychological health of university students needs to be addressed more thoroughly, and more attention is needed to eliminate the psychological issues which may help to avoid further mental health problems. There is a need to raise awareness about improving lifestyle, eating habits and psychological stress through dietary education, informative seminars, and rapid counseling to minimize the consequences of many health issues due to fast food consumption. Students' awareness of healthy food choices may be insufficient, which may adversely impact their eating habits (Algahtani et al, 2020).

Eating fast food in daily routine increase the level of stress, depression and anxiety in hostel students. Hajek et al. (2022) suggested that there is a significant relationship between fast food consumption and stress. Most of the hostel students eating Fast Food like pizza, burger, shawarma, sandwich and many other items (Vashishtha et al., 2021). Fast food consumption has a negative impact not only on university students but also on those who used to eat fast food in daily routine (Bakaloudi et al., 2022). Students face many diseases like depression, anxiety, and insomnia due to excessive fast food consumption (Lamy et al., 2022). Undesirable eating patterns including dinner skipping, sugar containing beverages and desserts and fats are normal among hostel students (Park et al., 2022). Low-nutrient foods that are heavy in fat, sugar, and salt contribute to students becoming less active, and university students are eating increasingly unhealthy diets (Jao. et al ., 2019). The majority of the people consumed fast food throughout the day and then they suffer in many mental disabilities and stress (Lanuza et al., 2022). In Malaysia more than half of the population prefer the fast food rather than the healthy food due to their busy lifestyle. They always prefer the fast food and they have unhealthy eating habits (Delley & Brunner, 2019).

Fast food has a negative effect on diet quality, body weight and overall health (Hanaysha, 2022). Unhealthy eating is becoming more common day by day (Esquius et al., 2021). Most of the students live in the hostel and face the difficulties to have healthy food so that's the main reason they always like to eat fast food because it's easy to deliver. In today's era most of students skip their at least one meal daily (Isa et al., 2021). Students cannot avoid mental pressure and anxiety due to the increasing demands placed on them by the educational system. In particular, higher education is infamous for being time-consuming and mentally draining (Dayi et al., 2017). A study in Egypt also found that daily fast-food consumption led to stress, anxiety, and depression among university students as most of them have medical illness and no physical activity (ElBarazi & Tikamdas, 2023).

Obesity and unhealthy eating habits become more common in developed and underdeveloped countries. Higher intakes of fruits and vegetables have been associated with better mental health (Berglind et al., 2018). It appears that psychological distress and mental health issues are most common in university life (Sharp et al., 2018). A study was conducted in ASEAN countries to determine the factors of mental wellness among university students during the COVID period by Rahman et al. (2022). It was found that poor dietary patterns and no physical activity are the main cause of poor mental health of students. Healthy diet may play an important role in the improvement of health due to its widely recognized protective role in obesity, stomach issues, cancer and cardiovascular disease (Mach et al., 2020). Balanced diet also appears to protect brain functions, reduce depression while depressed people lack proper nutrients and dietary supplement (Ortega et al., 2022; Pano et al., 2021). In a nut shell, previous literature suggests that poor dietary patters like excess consumption of fast food reduce the nutritional quality, disturb sleep patterns, poor the physical health and thus increases stress and anxiety among students.

A brief conceptual framework is provided in Figure 1.

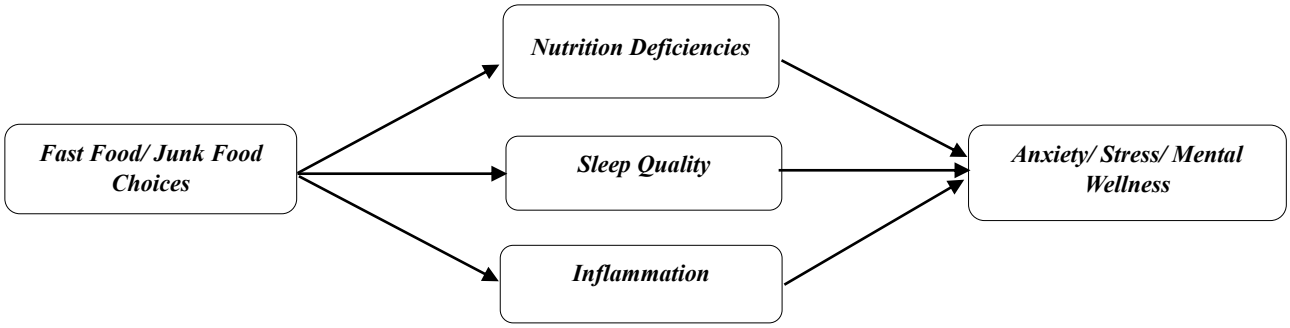

Figure 1: Conceptual Framework

Previous studies have vastly discussed about the dietary patterns and its effect on mental and physical health among university students but this idea was not addressed in developing countries like Pakistan where more than 80% students are consuming fast food very frequently instead of home-made food items. This frequency is not only hazardous for students' health but also becoming a psychological disorder. Therefore, the present study analyzes the relationship between fast-food consumption behavior and mental health in university students of Pakistan by taking the data of 405 respondents participants. The present study will provide a significant picture of metal health among university students and address an important issue to raise in higher education institutions.

Method

Sample and Procedure

This study is based on the primary data of students studying in universities of Pakistan. The data were collected from 10 universities of Pakistan through Google forms by using social media platforms. 405 students submitted the response of the questionnaire. This procedure was started in September 2023 and completed in January, 2024. A self-developed questionnaire was used to explore the study variables. Questions were developed on personal and demographic characteristics, perceived and evaluative attributes of fast food, consumption behavior and mental health and objective attributes like income and frequency of fast food consumption patterns. These attributes were further divided into information about respondent age, education, social class dietary pattern, fast food consumption behavior and mental health. Objective and subjective measures like health status and mental stability were also asked from the respondents.

Empirical model

Mental health (MH) is the outcome of five regressors of food consumption behavior (frequency of fast-food consumption, social class, stress, health, and dietary patterns. While in equation 2, frequency of fast-food consumption is replaced by money spent on fast food on weekly basis.

$$MH_i = \beta_\circ + \beta_{1i}\text{frequency} + \beta_{2i}\text{social class.} + \beta_{3i}\text{stress} + \beta_{4i}\text{health} + \beta_{5i}\text{dietry patterns} + \varepsilon \ldots\ldots \quad (1)$$

$$MH_i = \gamma_\circ + \gamma_{1i}\text{money} + \gamma_{2i}\text{social class.} + \gamma_{3i}\text{stress} + \gamma_{4i}\text{health} + \gamma_{5i}\text{dietry patterns} + \varepsilon \ldots\ldots \quad (2)$$

The measurement of the dependent variable (Mental health) is in dichotomous scale; thus, the Logistic Regression is the best analysis for the current study (Cameron & Trivedi, 2005). This model is also called the proportional odds model. Multivariate logit model is used for the association between fast food consumption behavior and mental wellness by using STATA 15.

Assessment Measures

Following assessment measures were used in the study:

Mental Health

A dichotomous scale (1 = yes and 0= no) was developed to examine that fast food affects the student's mental health (Legros & Boyraz, 2023).

Social Class

A three-point interval scale (1 =low, 2 = middle and 3 =High) was developed to determine the social class of students in university (Kumar et al., 2024).

Educational Status

2-pointscale (1 = undergraduate and 2 = graduate) was developed to figure out the educational level of students (Isa et al., 2022).

Dietary Patterns

A dichotomous scale (1 = unhealthy and 2 = healthy) was developed for asking the students about how to rate their dietary patterns (Drywień et al., 2021).

Health Status

3-point Likert scale (1 = poor, 2 =Average and 3= Good) is developed for asking the students to rate their health status (Drywień et al., 2021).

Frequency of Consuming Fast Food

4-point Likert scale (1 = Never, 2 =1 to 2 times, 3= 3to 4 times and 4 –more than 4 times was developed to figure out that how many times students consume fast food on weekly basis (Drywień et al., 2021).

Stress

A dichotomous scale (0= no and 1 =yes) was developed to analyze that fast food contributes to student's stress, anxiety, and depression level (Choi, 2020).

Disease

A dichotomous scale (0= no and 1 =yes) was developed to analyze that students have any symptoms of any disease(Didarloo et al.,2022).

Money Spent on Fast Food

4-point interval scale (1 = <PKR 1000, 2=PKR 1000-2000, 3=PKR 2000-3000 and 4 =>4000) was developed to assess that how much money is used by the students to buy fast food per week (Scully et al., 2020).

Results

Data were analyzed using STATA 15. Calculation of descriptive statistics followed by Logit Model of logistic regression. It comprises three step hierarchical model.

Descriptive Statistics

Descriptive statistics of variables used in models (Equation) 1 and 2 are presented in Table 1. 14.8 % of students belong to low social class, 38.5% students are from Middle class and 46.7% students are from high social class. 84.4 % undergraduates and 15.56% graduate students were the respondents of the questionnaire. 42.96% male and 57.04% female students were the respondents of this questionnaire. 57.8% of students were consuming unhealthy dietary patterns. 12.3% students have poor, 57.5% have average and 30.1% students have good health conditions.

According to survey 9.9 % students do not want to eat fast food, 50.4% students used to take fast food only 1-2 times, 29.9% students used to take fast food 3-4 times and 9.9% students used to take fast food more than 4 times. 33.6% students have no mental issues, and 66.4% students have some mental issues. According to above mentioned values 41.98% of students have no stress and 58.02 % students have great stress. 31.9% students have no disease, but 68.1% students have some disease due to consumption of fast food. 31.4% used to spend less than PKR 1,000 on fast food, 25.4% students used to spend PKR 1,000 - 2,000

on fast food, 34.3% students used to spend PKR 2,000 - 3,000 on fast food and 8.9% students used to spend more than PKR 4,000 on the consumption of fast food.

Table 1
Summary Statistics of variables

Variables	*Scale*	*N*	(%)
Social class	Low	60	14.8
	Middle	156	38.5
	High	189	46.7
Education	Undergraduate	342	84.44
	Graduate	63	15.56
Gender	Male	174	42.96
	Female	231	57.04
Dietary Patterns	Un-Health	234	57.8
	Healthy	171	42.2
Health	Poor	50	12.3
	Average	233	57.5
	Good	122	30.1
Frequency	Never	40	9.9
	1-2 Times	204	50.4
	3-4 Times	121	29.9
	More Than 4 Tomes	40	9.9
Mental Health	No	136	33.6
	Yes	269	66.4
Stress	No		41.98
	Yes		58.02
Disease	No	129	31.9
	Yes	276	68.1
Money	<1000	127	31.4
	1000-2000	103	25.4
	2000-3000	139	34.3
	>4000	36	8.9

Correlation Analysis

Pearson correlation was calculated to find out the relationship between the study variables.

Table 2
Correlation Analysis of study variable

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Mental Health	-	-0.163**	0.060	-0.618**	-0.430**	-0.524**	0.053	0.346**	0.524**
2. Gender	-	-	-0.178**	0.135**	0.075	0.206**	0.070	-0.050	-0.112*
3. Education	-	-	-	-0.191**	-0.036	-0.035	0.042	0.041	0.059
4. Social Class	-	-	-	-	0.339**	0.369**	-0.040	-0.258**	-0.340**
5. Diet Patterns	-	-	-	-	-	0.061	-0.213**	-0.292**	-0.446**
6. Health	-	-	-	-	-	-	-0.033	-0.208**	-0.305**
7. Frequency	-	-	-	-	-	-	-	0.594**	0.135**
8. Money	-	-	-	-	-	-	-	-	0.306**
9. Disease	-	-	-	-	-	-	-	-	-

Note.*p < .05, **p < .01, ***p < .001.

Table 2 represents the Pearson correlation matrix and it illustrates that Gender has a moderate and negative correlation with Mental Health (r = -0.16 ; p < 0.05). The correlation strength of Educational Level and Mental Health is weak and insignificant (r = 0.06 ; p > 0.10). There exists a strong and negative correlation between Social Class and Mental Health (r = -0.618; p < 0.05). Dietary pattern has a moderate and negative correlation with Mental Health (r = -0.430; p < 0.05). Physical Health status has a moderate and negative correlation with Mental Health (r = -0.524; p < 0.05). A low strength and insignificant relationship exists between Frequency of Fast-Food Consumption and Mental Health (r = 0.053; p > 0.1). Money is positively and moderately correlated with Mental Health (r = 0.346; p < 0.05).. A strong and positive correlation was found between Disease and Mental Health (r = 0.524; p < 0.05)..

Regression Analysis

Logit regression was performed to explore the impact of fast-food consumption of mental health of university students. Results have been presented in Table 3.

Table 3
Logit Regression Model (Dependent Variable: Mental Health)

Variables	(1) **Mental health**	(2) **Mental health**	(3) **Mental health**
Frequency of Fast Food			
1-2 times a week		0.30**	0.38*
		(0.14)	(0.22)
3-4 times a week		0.39*	0.14***
		(0.21)	(0.09)
More than 4 times		0.30*	0.14**
		(0.19)	(0.12)
Social class			
Middle		0.40	1.85
		(0.44)	(2.05)
High		0.01***	0.04***
		(0.01)	(0.04)
Stress (Yes)	5.97***		5.49***
	(1.92)		(2.39)
Health Status			

Variables	(1) Mental health	(2) Mental health	(3) Mental health
Average	0.95		0.99
	(0.45)		(0.50)
Good	0.03***		0.03***
	(0.02)		(0.02)
Dietary patterns			
Healthy	0.13***		0.16***
	(0.04)		(0.07)
Constant	7.82***	169.12***	187.99***
	(4.16)	(184.35)	(214.49)
Observations	405	405	405
Log-likelihood	-130.44082	-145.37348	-86.72221
Wald Chi^2	112.19***	107.92***	95.33***
Pseudo R^2	0.4953	0.4376	0.6645

Note.*p < .05, **p < .01, ***p < .001.

Table 3 presents the logit regression described in equations 1 and 2. Model 1 includes the variables of dietary patterns and health status while model 2 includes frequency of fast-food consumption and social class to regress over mental health. Finally model 3 combines all variables in equation 1. Results of the study show that student who perceived stress with fast food consumptions their mental health is positively influenced by the odds of 5.97 than those who do not perceive stress with fast food consumption at 1% level of significance. Healthy dietary patterns reduce the probability of mental health issue by odds of 0.87 (OR = 0.13, p < 0.01). Students who consume fast food by four or more times in a week perceived less mental health issues by odds of 0.86 than those who do not consume fast food regularly in a week. Normally, people with high social class uses more fast-food consumption in this era as they have no financial stress thus no mental stress to spend on fast-food. Results also reveal that students with mental health problems are reduced by odds of 0.96 (OR = 0.04, p < 0.01) in high social class students than lower class. The value of Wald chi2 is significant at 1% level indicating that all predictor variables are combined affecting the mental health. Moreover, value of Pseudo R^2 is also above 0.5 which predicts the good fit of the model.

Table 4
Logit Regression Model (Dependent Variable: Mental Health)

Variables	(1) Mental Health	(2) Mental Health	(3) Mental Health
Money Spent			
1000-2000		1.10	1.40
		(0.40)	(0.58)
2000-3000 PKR		3.30***	2.67**
		(1.32)	(1.34)
> 3000 PKR		2.93**	2.76*
		(1.59)	(1.54)
Social Class			
Middle		0.32	0.25
		(0.35)	(0.31)
High		0.01***	0.01***
		(0.01)	(0.01)
Stress (Yes)	7.54***		5.64***
	(2.22)		(2.08)

Variables	(1) Mental Health	(2) Mental Health	(3) Mental Health
Disease (Yes)	8.86***		8.40***
	(2.70)		(3.22)
Dietary patterns			
Healthy	0.27***		0.39***
	(0.08)		(0.14)
Constant	0.36***	39.44***	9.17*
	(0.13)	(41.09)	(10.51)
Observations	405	405	405
Log-likelihood	-163.5125	-142.8221	-104.9855
Wald chi2	105.26***	107.76	111.29***
Pseudo R2	0.3674	0.4474	0.5938

*** p<0.01, ** p<0.05, * p<0.1

Frequency of fast food is replaced by money spent on fast food in Table 4 while health status is replaced by disease. Results show that students who spent more money on the fast food have higher degree of mental health issues. The odds of mental health issues rise by 2.93 from 1.10 among those who spent more than three thousands of rupees on fast food per week than those who spent only PKR 1,000 - 2,000 rupees. Students who consume and spent more money on fast food, mostly take un-healthy dietary patterns and spent less on fruits and vegetables. These un-healthy dietary patterns effect their physical and mental health. Students who have reported symptoms of any kind of disease are highly susceptible to mental health issues by consuming fast food (OR = 8.86, $p < 0.01$). Overall, relationship between fast food consumption, dietary patterns, disease, and mental wellness are complex and bidirectional. Poor dietary patterns cause various diseases such as high blood pressure, obesity, diabetes which do not affect only physical health but also mental wellness and anxiety issues.

Table 5

Logit Regression Model with Control Variables (Dependent Variable: Mental Health)

Variables	(1) Mental Health	(2) Mental Health
Stress: Yes	5.53***	5.43***
	(2.08)	(2.38)
Frequency of Fast Food		
1-2 times a week		0.39*
		(0.22)
3-4 times a week		0.15***
		(0.10)
More than 4 times		0.13**
		(0.11)
Health Status		
Average		0.89
		(0.47)
Good		0.03***
		(0.02)
Dietary patterns: Healthy	0.42**	0.15***
	(0.15)	(0.07)
Social class		
Middle	0.18	1.31
	(0.22)	(1.26)
High	0.00***	0.02***
	(0.01)	(0.02)
Gender: Male	0.58	1.19
	(0.21)	(0.48)
Education: Graduate	0.21***	0.36*
	(0.11)	(0.19)
Money Spent		
1000-2000 PKR	1.42	
	(0.60)	
2000-3000 PKR	2.94**	
	(1.49)	

Variables	(1) Mental Health	(2) Mental Health
> 3000 PKR	3.12**	
	(1.78)	
Disease: Yes	8.65***	
	(3.34)	
Constant	21.44***	303.16***
	(24.63)	(325.69)
Observations	405	405
Log-likelihood	-101.9296	-85.8559
Wald chi2	105.75***	110.12***
Pseudo R2	0.6057	0.6678

*** p<0.01, ** p<0.05, * p<0.1

Table 5 reports the results of previous models with the addition of control variables which include gender and education. Graduate students reported less mental health issues than undergraduate students in our final by odds of 0.79 (OR = 0.21; $p < 0.01$) in the model 1. While in model 2, these odds were decreased by 0.64 (OR = 0.36; $p < 0.1$) and the relationship is also weak. Graduate students have more stable financial position, access to resources and time management than undergraduate students. They may have more knowledge and awareness about nutrition level and stress management skills, so they choose healthier food to increase the overall level of wellbeing. Finally, gender has no significant relationship with mental health in our model. The value of Wald chi2 is significant at 1% level indicating that all predictor variables are combined effecting the mental health. Moreover, value of Pseudo R^2 is also above 0.6 which predicts the good fit of the model.

Discussion

The relationship between stress and fast food consumption can be explained through numerous psychological and physiological mechanisms. Students who have experienced chronic stress is mainly due to fast food consumption because fast food is the major source of making the students hyperactive (Choi, 2020). Results of this study depicts that frequency of fast-food consumption is negatively associated with the mental health issues of university students which is contrary to the previous studies (Ejtahed et al., 2024; ElBarazi & Tikamdas, 2024). One of the major reasons of this relationship might be an emotional eating as the studies at higher education level are physically and mentally challenging (Dayi et al., 2017). Negative emotions and feelings sometimes lead to consume more fast food with friends. But the study depicts that spending more money on fast food is positively related to mental health which is in line with the previous studies (Lamy et al., 2022; ElBarazi & Tikamdas, 2024). The frequent fast food consumption leads towards the most terrible mental illness problems (Drywień et al., 2021). Frequent fast-food consumption may become a cause of many mental disabilities like stress, depression, and anxiety (ElBarazi & Tikamdas, 2023).

Findings of our study revealed that students with social class are less likely to have mental health problems than lower social class. These findings are consistent with the previous findings of Li et al. (2023) who demonstrate that people with lower social class have relatively low level of wellbeing and high level of mental health issues. A study found that students with lower social class are less likely to spend time in socializing and non-academic activities due to higher financial concerns, thus have mental health issues and stress (Richard et al., 2024). Fast food purchases can cause many financial problems for those students who have limited financial budgets or limited pocket money for their daily life necessities and then these students lead towards the mental stress just because of their financial position (Lin et al., 2023). On the contrary, students from high social class consume more money on fast food (Saha et al., 2022). Students from high social class may also get healthier dietary products and stress control therapies through which they can overcome the mental stress due to fast food consumptions as compared to those students who can't afford such expensive dietary products and stress control therapies (Tokarek et al., 2023).

Consumption of fast food among graduate college students and undergraduate college students may be encouraged due to the availability of fast food very near to their hostels or educational institutions, due to cheap rates of fast foods and may be due to the advertising campaign of shopkeepers of fast food points (Isa et al., 2022). Students who are habitual of improper dietary patterns are more likely to face destructive mental disabilities and frustration because fast-food meals are usually cooked with processed meats, that may become a cause of making hyperactive personality of students. University students usually face numerous health issues because of fast food consumption and they started to suffer in different diseases which are related to stomach and mental stress (Legros & Boyraz, 2023).

The consumption of fast food among university students may increase their chances of developing psychiatric distress and engaging in violent behaviors. Our study finds that students with unhealthy dietary patterns are more likely to have mental health problems than those who have healthy dietary patterns. These findings are also consistent with the previous studies (Algahtani, 2020; Amsalu et al., 2020), which revealed that excessive junk food consumption and poor eating behaviors lead to obesity, organ failure such as the heart, intestines, liver, and kidneys and other health issues which further lead to anxiety and stress (Lamy et al., 2022). Encouraging healthier eating habits may prove to be a successful strategy in mitigating mental health disorders. The

academic life of university students is often accompanied by mental stress. There is a significant relationship between the fast food consumption and the increased risk of depression, anxiety, and stress that are experienced by university students. The findings of our study will help to promote nutritious dietary patterns among the young generation.

Conclusion

The present study provides an important insight on the prevalence of food patters and mental wellbeing of university students. Inferior quality of diet and no physical activities among university students are prevailing mental and physical health issues among students. Our findings indicate that frequency of fast food consumption lowers the odd of mental health problems associated with its consumption but if students having stress from fast food consumption it increases the likelihood of mental health problems. Further, more money spent on fast food also increases the likelihood of mental health. The findings of this research also indicate that perceived healthy diet lower the odds of mental health problems.

Limitations

The present study is limited to university students of Pakistan. The future studies can be expanded into different regions on the current hypothesis. The present study includes variables of social class, frequency, and dietary patterns to determine the mental health of students. Variables like social connections, living in hostels and consumption patterns of households can also be added in future. Future research can be focussed on fast-food consumption behaviour and students' academic performance along with health related quality of life.etc.

Suggestions and Implications

This study suggests that seminars and discussions should be arranged with the academia-policy institute collaborations to deliver lectures on health food patterns and overall wellbeing. In addition to that, students are needed to educate about food choices and its link with anxiety and depression to promote mental wellness. Based on research findings, risk associated with frequent fast food consumption and its association with sever mental health problems among university students like stress and anxiety, this study also suggest policy makers and public institutions to limit the number of fast food restaurants near university area. Universities should arrange seminars and raise educational campaign through posters workshops to educate students about healthy diet and wellbeing.

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