
An Investigation into the Fast-Food Consumption Factors among Adults in Makkah, Saudi Arabia.

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Abstract

Recently, lifestyle changes in Saudi Arabia KSA have been significant, with a notable increase in the consumption of unhealthy fast food and a decrease in physical activity. This study focuses on an investigation into the fast-food consumption factors among adults in Makkah, Saudi Arabia.

This cross-sectional study enrolled 320 participants, including both Saudi and non-Saudi individuals, between 1st July and 1st September 2024. The data was gathered through an online survey that participants filled out themselves, which was created using Google Forms.

Most of the individuals involved were women, with (81%) falling within the age range of 20 to 40 years old. Students accounted for just (13%). (61%) of the respondents stated that they eat fast food 1 to 2 times a week, whereas (7%) reported consuming it more than 5 times weekly.

The majority (60%) of people choose to eat fast food at home with their family, while a small percentage (6%) prefer to eat fast food alone at home. Over half of the respondents indicated a preference for dining at both local and international restaurants, with approximately (53%), while only a small percentage favored international restaurants at (5%). Just (1%) were residing in student

housing and (3%) were living alone, with the remaining (96%) living with their families. As certain factors linked to the high consumption of fast food among Saudi Arabian adults become more common, there has become an urgent need to change the lifestyle in KSA.

Key words

Fast-Food, Factors, Adults.

Introduction

KSA has the highest obesity rates in the world, the prevalence of obesity in KSA is higher than the global average (35% vs. 13%). Also, the rates of deaths attributable to obesity in KSA are higher than the global average (18% vs. 8%) (**Salem *et al.*, 2022**). Different parts of the country have varying prevalence rates, with higher rates seen in urban areas and the Eastern Region (**Alabdulkader *et al.*, 2024**). According to the self-reported weight and height in the Saudi National Health Survey (SNHS), the rate of obesity (body mass index (BMI) is determined. The percentage of (≥ 30) was determined to be 23.9%. Furthermore, 36.5% of adults aged 15 years and older consumed vegetables and fruits at a regular rate (**General authority for statistics, 2024**).

Various factors play a role in creating an environment that promotes obesity in KSA, such as unhealthy eating habits, excessive consumption of sugary drinks, fast food, and fried foods, as well as low levels of physical activity (**Syed *et al.*, 2020 and Benajiba *et al.*, 2020**). Over the last few decades, fast food has become a significant part of the Arabian diet, resulting in its regular consumption. Fast food refers to meals bought from fast-food eateries, such as pizza, burgers, fried chicken, French fries, and baked goods made from white flour. Fast food is usually high in calories, contains a lot of saturated fat and salt, and lacks many

essential nutrients. Regular fast-food consumption is linked to lower levels of fruits, vegetables, fiber, and milk consumption and higher levels of fats, carbohydrates, added sugars, and sugary drinks (**Mumena et al., 2022**). Research conducted across various environments indicates that teenagers are the most consumers (**Paeratakul et al., 2003**). This could be because of taste preferences, the affordable prices for generous portions, convenience, and the widespread presence and popularity of fast-food chains. 36% of children and teenagers in the United States consume fast food daily (**Driskell et al., 2005 and Beydoun et al., 2011**). A study in Saudi Arabia in 2020 found that 87% of the population had a high intake of fast-food (**Amer et al., 2022**). A previous survey of Saudi teenagers found that approximately 85% of them choose to consume fast food over homemade meals (**Washi and Ageib, 2010**). Persistent consumption of fast food is linked to elevated BMI. It leads to higher cardiovascular dangers and noncommunicable disorders, such as stroke, hypertension, cancer and type 2 diabetes (**Parvin et al., 2023**). A possible connection could be present between fast food, processed food, commercial baked goods, and sweets, and the damage of brain cells and a decrease in intelligence. Studies have indicated that consuming too many calories decreases life expectancy, while practicing moderate calorie restriction delays aging and insulin resistance (**Fuhrman, 2018**). Being overweight or obese increases the likelihood of developing high blood pressure, hardening of the arteries, and heart disease compared to those who are not overweight (**MOH, 2018**). An earlier study conducted among students studying Public Health and Nursing at the University of Sunderland revealed that various factors such as society, environment, biology, psychology, and demographics can impact fast food consumption. Despite being aware of the health risks associated with fast food, students continue to consume it to relieve the stress of college life, as it offers quick

service, affordability, and time efficiency compared to home-cooked meals (**Parvin *et al.*, 2023**).

Recent research indicates a significant rise in the consumption of junk food among adolescents and young adults in Saudi Arabia, along with a substantial increase in fast food restaurants. The eating patterns established in youth are crucial because they are likely to persist throughout the lifespan (**Mandoura *et al.*, 2008**).

This is a significant health issue, particularly in urban areas. This study aims to analyze the factors contributing to fast food consumption and examine the reasons for its increasing popularity. Understanding these drivers may provide insights for designing effective interventions to promote healthier eating habits among individuals.

Methods

This cross-sectional study enrolled 320 participants, including both Saudi and non-Saudi individuals, between 1st July and 1st September 2024. The participants in the study were 18 years old and older. The research involved an organized survey that gathered various demographic information including gender, age, state of education, employment situation, marital status, and monthly income in Saudi Riyals (SAR). Data was gathered through an online survey that participants filled out using Google Forms. Due to the widespread internet usage in KSA, the online survey link was shared with the target audience through different media channels such as Google Drive, WhatsApp groups, and email. The answers they provided were gathered and analyzed using IBM SPSS Statistics 23 Version.

Results

Table (1): The demographic information for research participants:

Variables	N	%
Gender		
Male	60	19%
Female	260	81%
Age (Years)		
Less than 20	20	7%
From 20 to 40	232	73%
More than 40	68	20%
Education states		
High school or lower	64	20%
Diploma	32	10%
Bachelor	168	52%
Postgraduate or higher	56	18%
Employment situation		
Student	40	13%
Employed	176	55%
Unemployed	104	32%
Monthly income (Saudi Arabian Riyals)		
5000 or less	128	40%
From 6000 to 10000	76	24%
More than 10000	116	36%
Marital status		
Single	96	30%
Married	196	61%
Divorced	24	8%
Widowed	4	1%
Living states (arrangements)		
Alone	8	3%
With family	308	96%
Student Accommodation	4	1%
Total	320	100%

Data from Table (1) shows that the majority of participants were female, making up around 81%, while males accounted for just 19%. This outcome suggests that women tend to eat fast food more than men, consistent with previous research showing that women consume more fast food than men, with 63.5% and 36.5% respectively (**Mandoura et al., 2008**). Our results support some findings in other studies, showing that the percentage of females is higher than that of males at 75.2% and 67.2% respectively (**Kayisoglu and İçöz2014**). Furthermore, different research revealed a higher percentage of females compared to males, with 75.2% and 67.2% respectively (**Mumena et al., 2022**). This explains the finding in the research conducted by **Salem et al., (2022)** that showed a higher obesity rate among women in KSA. On the other hand, research by **Askari Majabadi et al., (2016)** revealed that 62% of males consumed fast food, compared to 38% of females.

Furthermore, the data shows that most of the respondents, approximately 73%, were in the age range of 20 to 40 years old. Different research discovered that the proportion of fast-food consumption among individuals aged 12-39 during 2017 and 2018 was nearly 45.7%, which was comparable to that finding (**Popkin, 2022**).

Additionally, 20%, 52%, and 18% of the respondents had a high school education or lower, a bachelor's degree, and postgraduate education or higher, in contrast to 75.4%, 69.2%, and 67.7% in other studies (**Mumena *et al.*, 2022**).

According to the employment status, over half of the participants were employed, making up 55% of the respondents. This aligns with another study by **Mandoura *et al.*, (2008)** where 37.8% were also found to be employed. In (**Mumena *et al.*, 2022**), 82.7% of respondents their monthly income was 5000 Saudi Arabian Riyals or less per month, whereas only 40% did in the current study.

When it comes to the connection between being married and eating fast food, married people had the highest rate of fast-food consumption at 61%, which is higher than single individuals at 30%, divorced individuals at 8%, and widowed individuals at 1%.

Furthermore, 96% of the participants lived with their families, while only 3% lived alone. A study conducted earlier discovered that 92.3% of people resided with their families, a finding similar to this study, while only 6.8% lived on their own (**Mandoura *et al.*, 2008**).

Table (2): The individuals' responses to the questions:

Variables	N	%
Frequency of fast-food consumption (per week)		
From 1 to 2 times	195	61%
From 3 to 5 times	61	19%
More than 5 times	22	7%
Do not consume fast food	42	13%
Preference place for fast food consumption		
At home (alone)	19	6%
At home (with family)	192	60%
At Restaurant	38	12%
With friends	29	9%
Do not consume fast food	42	13%
Preference kind of restaurant for fast food purchasing		
Local restaurants	93	29%
International restaurants	16	5%
Both local and international restaurants	169	53%
Do not consume fast food	42	13%
Living State (arrangements)		
Alone	10	3%
With family	307	96%
Student Accommodation	3	1%
Total	320	100%

Data from Table (2) indicates that 61% of participants eat fast food 1-2 times per week, while 19% eat it 3-5 times per week. 13% reported they were not consuming fast food. A study by **Jayasinghe and De Silva (2014)** found that 21% eat fast food 2-3 times per week and 12% eat it 4-6 times per week.

As per the survey on fast-food consumption preference, 60% of participants opt to eat fast food at home with family, while 12%, 9%, and 6% prefer dining at a restaurant, with friends, and alone at home, respectively.

According to the participants' restaurant preference for fast food, 58% prefer both local and international restaurants, 29% prefer local restaurants, and only 5% prefer international restaurants. These figures are close to previous results reported by **Mandoura *et al.*, (2008)** of 45.2%, 33.6%, and 13.7% respectively.

According to living state (arrangements), almost all participants (96%) lived with family, while only 3% lived alone and 1% in student accommodation. A previous study of students from private universities in Bangladesh found that the majority (98.5%) preferred fast food, with about 22% consuming it four days a week and 21.3% having it every day (**Bipasha and Goon, 2014**).

Conclusion

This study reports the factors associated with the frequency of fast-food consumption and preference. Fast food is commonly eaten by young people in Saudi Arabia, particularly females, individuals aged 20 to 40, who are employed, married, and living with family. Encouraging young people in Saudi Arabia to decrease their fast-food consumption and increase their physical activity is important as they are the biggest consumers of fast food. Fast-food consumption preferences were linked to where people ate, the types of restaurants, and the living state (arrangements). With the increase in factors contributing to the high consumption of fast food among Saudi Arabian adults, there is a pressing necessity to alter lifestyle in KSA. Further research is essential to explore the connection between fast-food intake and adolescent health in Saudi Arabia.

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المخلص العربي

في الآونة الأخيرة، كانت التغييرات في نمط الحياة في المملكة العربية السعودية كبيرة، مع زيادة ملحوظة في استهلاك الوجبات السريعة غير الصحية وانخفاض النشاط البدني. تركز هذه الدراسة على التحقيق في عوامل استهلاك الوجبات السريعة بين البالغين في مكة المكرمة، المملكة العربية السعودية. وقد شملت هذه الدراسة المقطعية ٣٢٠ مشاركًا، بما في ذلك الأفراد السعوديون وغير السعوديين، بين ١ يوليو و ١ سبتمبر ٢٠٢٤. وتم جمع البيانات من خلال استبيان عبر الإنترنت قام بتعبئته المشاركون بأنفسهم، والذي تم إنشاؤه باستخدام نماذج قوئل. كان معظم الأفراد المشاركين من النساء (٨١٪)، حيث تراوحت أعمارهم بين ٢٠ و ٤٠ عامًا. وشكل الطلاب (١٣٪) فقط. وذكر (٦١٪) من المشاركين أنهم يتناولون الوجبات السريعة مرة إلى مرتين في الأسبوع، بينما أفاد (٧٪) أنهم يتناولونها أكثر من ٥ مرات أسبوعيًا. غالبية المشاركين حوالي (٦٠٪) يفضلون تناول الوجبات السريعة في المنزل مع أسرهم، بينما تفضل نسبة صغيرة وهي (٦٪) تناول الوجبات السريعة بمفردهم في المنزل. وأشار أكثر من نصف المشاركين إلى تفضيلهم لتناول الطعام في المطاعم المحلية والعالمية، بنحو (٥٣٪)، في حين فضلت نسبة ضئيلة فقط المطاعم العالمية بنسبة (5%) وكان (١٪) فقط يقيمون في سكن الطلاب و(٣٪) يعيشون بمفردهم، بينما يعيش الباقي (٩٦٪) مع عائلاتهم. ومع شيوع بعض العوامل المرتبطة بارتفاع استهلاك الوجبات السريعة بين البالغين في المملكة العربية السعودية، أصبحت هناك حاجة ملحة لتغيير نمط الحياة في المملكة العربية السعودية.

الكلمات المفتاحية

الوجبات السريعة، العوامل، الكبار.