

RELATIONSHIP BETWEEN INTERNET ADDICTION, EATING HABITS AND BODY MASS INDEX (BMI) AMONG UNIVERSITY STUDENTS: A NUTRITION AND HEALTH SCIENCES STUDY

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ABSTRACT

Objective: To study Internet addiction, eating attitudes, and BMI among university students in Karachi, Pakistan.

Methodology: A descriptive Cross-sectional study was conducted on students of Universities in Karachi from September 2022 to February 2023 using the Non-Probability Convenience sampling approach. Sample size was determined using Epi Info version 7 at a 95% confidence level and a 5% margin of error. Data collection was done with the help of a questioner summing up social demographic data, Young's Internet Addiction Test (IAT), and the 26-item Eating Attitudes Test (EAT-26). Anthropometric measurements were used to find BMI. Associations were checked using appropriate non-parametric and correlation analyses; $p < .05$ was considered statistically significant.

Results: The total number of participants was 359. The most common category was moderate Internet addiction, with 58.5%, and 7.5% had severe Internet addiction. There was no significant difference in the IAT scores based on sex ($p = .282$). Females had significant high EAT-26 scores ($p < .001$), while males had a significant high BMI rank ($p = .033$). IAT scores had a weak significant negative correlation with EAT-26 scores ($r = -.192$, $p < .001$), and no significant correlation with BMI ($r = .028$, $p = .589$).

Conclusion: Problematic Internet use was present among university students and was not associated with BMI. The weak inverse correlation of Internet addiction and eating-attitude scores shows that the relationship of Internet addiction and eating attitudes is likely to be complex and may differ in different populations. Complex behavioral patterns need to be studied in-depth with longitudinal studies.

KEYWORDS: Internet addiction, eating attitudes, body mass index, university students, Pakistan

INTRODUCTION

The Internet has become an integral component of contemporary life, transforming how individuals communicate, obtain information, study, work, and engage in social activities. Internet access is of special significance among university students who use it for academic tasks such as reading course material, searching for literature, completing assignments, communicating with instructors and participating in online learning. With the growing availability of the Internet and the amount of time people spend online, however, concerns have been raised about problematic and hazardous Internet usage (Gebremariam et al., 2024).

Internet addiction is known to cause problems in academic, occupational, social and physical activities and is generally defined as poorly controlled Internet use that interferes with an individual's functioning. Excessive use of the Internet can also be associated with sedentary behaviours and disrupt daily routines, which can impact other health-related behaviours (Baghcheghi & Koohestani, 2026). From a nutrition and health sciences perspective, examining internet addiction alongside eating behaviours and body mass index (BMI) is important because excessive internet use may influence dietary patterns, lifestyle behaviours, and weight-related health outcomes among young adults.

University students might be especially sensitive to these behavioural shifts as there are increased opportunities in the transition from secondary school to university for students to make their own choices, alter their sleeping habits, experience increased academic pressure, as well as needing to rely on digital technologies more. Heavy Internet usage

could also interfere with daily physical activity and could also be related to irregular eating habits, eating less, overeating snack foods, and eating energy-dense foods (Ayesha, 2026).

Moreover, there is constant exposure to food-related information and marketing in online environments and social media, which can impact food choice and eating patterns. The changes are significant as nutritional behaviours during young age may add to long-term nutrition or metabolic-related changes. Body mass index (BMI) is a widely used anthropometric indicator of weight status at the population level. One previous study found that problematic Internet use was correlated with having poor eating habits, a sedentary lifestyle and overweight/obesity status among adolescents (Abera et al., 2026).

The relationship between Internet addiction, eating behaviour, and BMI, however, is multifaceted and could differ depending on demographic characteristics, physical activity, socioeconomic situation and cultural context (Persil-Ozkan et al., 2026). Although Internet access and use of digital technology among young adults is burgeoning, evidence from the South Asian population, including Pakistan, is still comparatively limited.

There has been significant improvement in Pakistan in Internet connectivity in recent years. There are around 82.90 million Internet users in Pakistan today, which indicates the growing penetration of digital technology in the daily lives of the people (Islam & Rasool, 2023).

With this rising digitalisation of young adult engagement, the relationship between digitalisation and healthy behaviours is a topic of growing importance. The present study examined the trends in Internet use and addictive Internet use and evaluated the correlation of Internet addiction with eating behaviours and BMI in this group.

LITERATURE REVIEW

Recent research indicates that there is a wide range of health-related problematic internet behaviours, especially alterations in eating habits, activity and weight-related outcomes that are related to problematic consumption of the internet in university students. Arslan et al. (2026) showed a positive correlation between Internet-addiction scores of university students with food responsiveness, emotional overeating, hunger and BMI. Scores for Internet-addiction were also independently correlated with hunger, food responsiveness, emotional overeating, BMI, and physical activity. The results indicate that problematic Internet use could be associated with a combination of behavioural and anthropometric characteristics and not a singular behavioural issue. Likewise, Ayran et al. (2021) found that there was a strong positive correlation between Internet addiction and disordered eating attitudes among undergraduate students, but this correlation was rather low. Internet addiction has also been linked with lower Body Satisfaction, suggesting that health-related consequences of excessive Internet Use might also be related to Body Satisfaction perceptions.

The findings are consistent with problematic Internet use and risk for eating disorders, as well, from large student samples. Students in Bangladesh who saturated the Internet, whether moderate or severe, were at increased risk of eating disorders when compared to students who were not Internet saturated or had mild Internet addiction, with moderate cases nearly twice as likely and severe cases almost four times more likely, according to Banna et al. (2023). Dorai et al. (2021) reported a similar correlation among medical students in South India. The students with disordered eating showed about two times the odds for Internet addiction, and, after adjustment for potential confounding factors, the association between the two was preserved. A similar study by Güneş et al. (2023) revealed that the more the university students' eating-disorder scores increased, the higher their odds for being classified as Internet addicts. Similarly, Tayhan Kartal and Yabancı Ayhan (2021) concluded that the level of Internet addiction was significantly higher among students who are at risk of eating disorders than that of the non-risk group students.

Several other investigations indicate that the impact of excessive Internet use can reach beyond the line of formal eating-disorder indicators to common eating behaviours. According to Joushani et al. (2024), Internet addiction among college students has a significant relationship with changes in the size of meals and appetite in Omani students. When asked about their appetite, over half of the Internet-addicted students indicated that their appetite had decreased, and a significant number indicated that the amount of meals had decreased. The results show that problematic Internet use cannot be simply considered a means to overeating and/or obesity, as excessive online consumption could also impede the regularity of eating and feeding habits. Likewise, Liu et al. (2025) noted that Internet addiction was negatively associated with intuitive eating among college students, meaning that strong addiction to the Internet might be associated with decreased responsiveness to internal hunger and fullness cues.

Specific nutrition habits also offer clues to the problem of Internet addiction. Kamran et al. (2018) reported in Pakistan that university students with high levels of Internet use exhibited low frequency of breakfast habits, high frequency of eating large portions, eating before and after meals, poor eating quality, low levels of physical activity and lack of sleep. In a specific way, this study is important for Pakistan due to the fact that it suggests that potentially problematic Internet use can take place in parallel with a couple of behaviours in lifestyle which can have an influence on long-term nutritional status. In another similarity, Koç et al. (2021) revealed that the physically inactive university students had higher scores of uncontrolled eating and emotional eating as well as Internet addiction. No clear but direct associations of eating behaviour to the term internet addict or internet addiction appeared in this study, but the close association of both suggests that physical inactivity and related behaviours may be a valuable part of the broader behaviour space link between online use and eating patterns and weight.

This correlation, however, is much less consistent between Internet addiction and BMI. A few studies have found a link between sugar consumption and acne. The results of Sedek and Nazri (2020) also showed that there were positive relationships between eating-disorder risk and BMI with Internet addiction in their Malaysian undergraduate sample. Eating-disorder scores were further positively correlated and suggest that all three measures could be related to one another among the same population of students. Dong, Kennedy, Tasquita, and Marchand (2013) similarly found a positive association between BMI and Internet addiction scores. Also, Arslan et al. (2026) found a positive correlation between the Internet addiction scores and BMI. Keküllüoğlu and Kaya Cebioğlu (2023) identified a significant correlation between Internet addiction and eating attitudes, and found BMI values to be significantly high in problematic Internet users. The findings do support a tentative speculation that unhealthy diet-related behaviours, associated with heavy Internet use, might lead to increased body weight in one group of students.

This relationship has been supported in a large study by Yıldız et al. (2024). Mean scores of problematic Internet use showed an increasing trend between the different BMI groups, with overweight and obese university users scoring significantly higher in problematic Internet use than the normal- and underweight ones. Overweight/obese participants also reported higher levels of Internet use and more sedentary time.

The conclusions of such studies provide a compelling aetiology for such use that suggests that the Internet is a substitute for physical activity and also offers the chance for adventurous and excessive eating. In line with this, Tao (2013) found that Chinese college students with an internet addiction had a higher sense of weight concern and weight change, and there was a higher incidence of binge eating. Similarly, both BMI and Internet addiction predicted bulimic symptoms, and Internet addiction was found to be the stronger. This association was partially mediated by depression, suggesting a potential role for psychological factors in driving relationships between DB and eating pathology.

However, some of the studies have not concluded that there is a direct link between BMI and Internet addiction. In the study carried out by Ayran et al. (2021), they did not observe that there was a meaningful correlation between Internet addiction and BMI, although they had observed an association between disturbed eating attitudes and Internet addiction. A similar study was conducted by Dorai et al. (2021) to assess the difference in BMI between the students with and without Internet Addiction, and also found that no significant difference in BMI exists between the two groups. Gündüz et al. (2019) showed that there was a significant relationship between the rate of internet addiction and the psychosocial problems that come with being obese; however, there was no correlation between internet addiction and body mass index (BMI) scores, or with eating-attitude scores.

However, students' perceived BMI gain or loss was significantly related to Internet-addiction scores, similar to the study conducted by Taha et al. (2019). The results strongly indicate that when looking at the connection between Internet behaviours and physical measurements, such as BMI, there is a discrepancy between the two; that is, behavioural disturbances from Internet use do not automatically equate to changes in BMI.

Such relationships are also complicated, as noted by the research conducted by Kozybska et al. (2021). BMI was positively correlated with eating-disorder symptoms, and problematic Internet use was an independent predictor of eating-disorder scores. Online use behaviours, including sleeping hours lost, preoccupation with being online, and using the Internet to manage negative emotions, were also linked to disordered eating.

A related study by Kozybska et al. (2022) revealed that students at risk of problematic Internet use had lower overall health behaviours and higher scores on eating issues and disorders, while abnormal body weight was not strongly correlated with problematic Internet use. Similarly, even when results are more complicated with dietary behaviours, as in the case of problematic Internet and smartphone use and its links to poorer overall dietary behaviour, Yılmaz et al. (2025) explained that this link remains.

The presence of binge-eating risk, Internet addiction, body-shape concerns, and overweight/obesity in a large sample of university students (Holness and Radwan, 2025) was also found to be substantial, with overweight/obese students being significantly more likely to have binge-eating risk.

Together, the existing literature suggests that problematic Internet use is generally linked to eating disorders in college students, such as emotional eating, binge eating, skipping breakfast, disrupting appetite, taking in too much food, decreasing intuitive eating, and worse diet.

METHODOLOGY

Study Design and Setting

A cross-sectional study was done among students of the University of Karachi, Pakistan. The study was conducted at the selected universities of Karachi from September 2022–February 2023. This study aimed to determine the link between eating attitudes and body mass index (BMI) and Internet addiction problems in university students.

Study Population and Sampling

The study subjects consisted of males and females from university students ranging from 19–26 years, day students and hostel students. A non-probability convenience sampling method was adopted for the recruitment of students with a visit to a few selected universities in Karachi.

Epi Info version 7 was used to determine the sample size necessary. The minimum sample size calculation made was 342 students with a 95% confidence interval and a 5% margin of error. The number of expected non-responses was factored in when estimating the recruitment target (Serdar et al., 2021). The participants were students between 19 and 26 years enrolled at the participating Universities who gave informed consent. Students who had an anxiety disorder, depressive disorder or a diagnosed eating disorder were excluded prior. Students were excluded for an anxiety disorder or marked as having a depressive disorder, or if they had previously been diagnosed with an eating disorder, such as binge eating disorder or anorexia nervosa. The exclusion criteria were set to minimise the confounding effects of the presence of pre-existing psychiatric and eating disorders on risk assessment and scores for eating attitudes via the Internet.

Data Collection Instrument

A self-administered, structured questionnaire designed for the investigation and also followed by a literature review was employed in collecting data. The main data collection time was preceded by a pilot test of the questionnaire with 15 students from the university where the data collection was going to take place to check the clarity, relevance, and understanding of the questions. The questionnaire was modified according to the feedback received on the pretest before it was administered to the study population.

The final questionnaire consisted of three principal components: sociodemographic and background characteristics, assessment of Internet addiction, and assessment of eating attitudes. Information about socio-demographic characteristics was collected for relevant participant characteristics, including age, gender, and residential status.

The Young's Internet Addiction Test (IAT) was used to assess Internet Addiction. The IAT is a self-report measure of the impact of the Internet on an individual's functioning and problematic/addictive Internet use patterns. There was no modification in the scoring procedure that was used with the instrument. Scoring the participants' responses was done according to the normal scoring of the instrument, with higher scores indicating a higher level of problematic Internet use.

In total, the 26-question Eating Attitudes Test (EAT-26) was used to evaluate eating attitudes and risk of disordered eating. The EAT-26 is a psychometric questionnaire that aims to detect attitudes and behaviour patterns predictive of an increased risk for eating disorders. EAT disturbance scores are higher for more severe disturbed eating attitudes. The instrument was only used as a screening instrument, not a diagnostic tool for the eating disorders.

Anthropometric Assessment

The participants' body mass index (BMI) was measured using anthropometric measures. BMI was calculated as body weight in kilograms divided by the square of height in metres (kg/m^2). BMI values were calculated to help assess weight status and examine the relation of the calculated metric with eating-attitude and Internet-addiction scores.

Ethical Considerations

This study was approved by the Bahria University Health Sciences Campus (BUHSC) Ethical Review Committee, Karachi. All students were informed about the purpose of the study before participating, and participation was done on a self-selected basis. All information gathered using the questionnaire was only utilised as research data, and subjects' confidentiality and anonymity have been preserved throughout the study.

Statistical Analysis

The statistical software program titled Statistical Package for the Social Sciences (SPSS) was used in the handling and processing of the data and was analysed. All the data of the participants in terms of sociodemographic data, anthropometric data, score values on the Internet Addiction Test and Eating Attitudes Test were summarised using descriptive statistics. Means and standard deviations were used to describe continuous variables, while frequencies and percentages were used to describe categorical variables.

Comparisons of anthropometric measurements, IAT scores, and EAT-26 scores between males and females used an independent-samples t-test. Associations between categorical variables (BMI categories, Internet-addiction levels, eating-disorder-risk categories) and gender were assessed with Fisher's exact test.

Relationships between IAT scores, EAT-26 scores and BMI were assessed using Pearson's correlation coefficient. This study aimed to find out whether higher levels of Internet addiction would be correlated with changes in eating attitude scores and BMI, whether eating-attitude scores would be correlated with BMI and if increasing the level of Internet addiction would be correlated with changes in eating attitudes. All the tests used were two-tailed, and a p-value $< .05$ was considered statistically significant.

RESULTS

A total of 359 university students participated in the study, including 132 (36.8%) males and 227 (63.2%) females. Table 1 displays Internet-use characteristics, IAT categories for both genders and BMI classifications for both sexes.

Internet Use, Internet Addiction, and BMI by Gender

Internet use for learning was reported by 349 (97.2%) participants. There were 128 (97.0%) males who reported using the Internet for learning and 221 (97.4%) females.

As far as daily Internet use, 117 persons or 32.6% used it more than 5 hours a day, 75 or 20.9% about 5 hours, 130 or 36.2% 3 to 4 hours and 37 or 10.3% less than 2 hours a day. Over half of the participant group (53.5%) used the Internet for 5 or more hours per day. The mean Internet-use durations of male and female students were not significantly different, according to the above-mentioned statistical analysis ($p = .526$).

Based on IAT category classification, only 9 (2.5%) of the participants were classified as normal Internet users. 113 (31.5%) participants showed mild results in their Internet use problem, 210 (58.5%) had moderate status, and 27 (7.5%) were severe. In conclusion, 350 (97.5%) students obtained a score above the normal use category on IAT, moderate Internet addiction being the most common one. Mild, moderate, and severe levels of Internet addiction were 28.8%, 56.1%, and 10.6%, respectively, among males. In the case of females, 33.0%, 59.9%, and 5.7% were recognised as mildly addicted to the Internet. The proportions were 33.0%, 59.9%, and 5.7% among females, respectively. There was no significant difference in the distribution of categories of Internet addiction with respect to gender ($p = .080$).

BMI classification showed that 91 participants were underweight, 140 participants had normal BMI, 50 participants were overweight, 46 participants were in class I obesity, and 32 participants were in class II obesity. In total, 128 (35.7%) participants were overweight or obese.

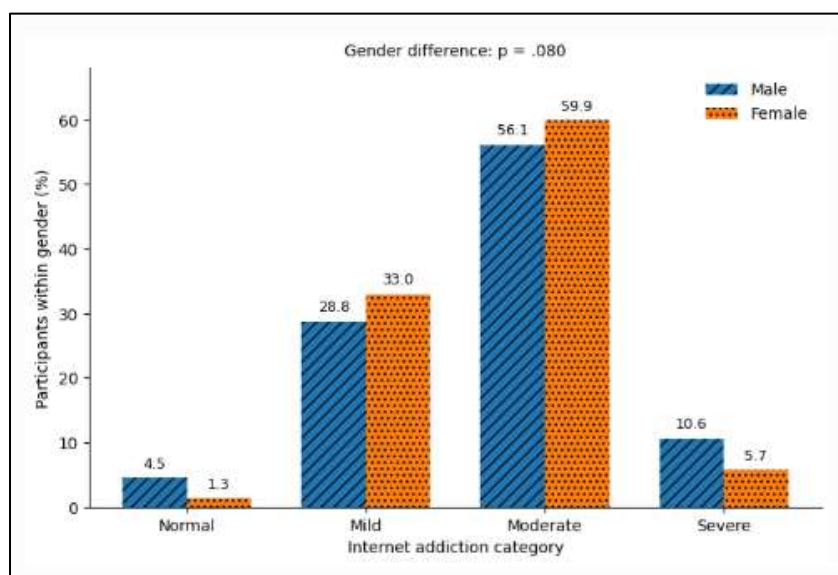


Figure 1. Internet addiction severity by gender

The mean BMI distribution was different between males and females ($p = .027$). 21.2 percent of the male participants were underweight, 37.9 percent had a normal BMI, 11.4 percent was overweight, 14.4 percent had class I obesity, and 15.2 percent of men had class II obesity. The proportions of females with underweight/disease status, normal BMI, overweight, class I obesity and class II obesity were 27.8%, 39.6%, 15.4%, 11.9% and 5.3%, respectively. The combination of overweight and obesity categories gave higher prevalence among males (40.9%) compared to females (32.6%).

Table 1: Internet-use characteristics, Internet-addiction level, and BMI classification according to gender (N = 359)

Characteristic	Male, n = 132, n (%)	Female, n = 227, n (%)	Total, N = 359, n (%)	p value
Internet use for learning				.004
Yes	128 (97.0)	221 (97.4)	349 (97.2)	
No	4 (3.0)	6 (2.6)	10 (2.8)	
Daily Internet use				.526
<2 hours	18 (13.6)	19 (8.4)	37 (10.3)	
3–4 hours	50 (37.9)	80 (35.2)	130 (36.2)	
5 hours	25 (18.9)	50 (22.0)	75 (20.9)	
>5 hours	39 (29.5)	78 (34.4)	117 (32.6)	

Internet-addiction level				.080
Normal	6 (4.5)	3 (1.3)	9 (2.5)	
Mild	38 (28.8)	75 (33.0)	113 (31.5)	
Moderate	74 (56.1)	136 (59.9)	210 (58.5)	
Severe	14 (10.6)	13 (5.7)	27 (7.5)	
BMI classification				.027
Underweight	28 (21.2)	63 (27.8)	91 (25.3)	
Normal weight	50 (37.9)	90 (39.6)	140 (39.0)	
Overweight	15 (11.4)	35 (15.4)	50 (13.9)	
Obesity class I	19 (14.4)	27 (11.9)	46 (12.8)	
Obesity class II	20 (15.2)	12 (5.3)	32 (8.9)	

Note. Percentages for male and female participants are calculated within gender. Total percentages are based on the full sample ($N = 359$).

Gender Differences in IAT, EAT-26, and BMI

Difficulty with activities was compared between genders. However, gender differences were compared for IAT, EAT-26, and BMI.

To assess gender differences in IAT, EAT-26 and BMI, the Mann–Whitney U test was used in Table 2. Due to the use of a non-parametric test, the reported value(s) indicate mean ranks and not mean arithmetic scores.

The mean scores for the IAT were not statistically different between males and females ($U = 13,961.50$, $p = .282$). The mean rank (MR) was higher in males than in females (187.73 vs 175.50); however, it was not statistically significant.

In contrast, EAT-26 scores differed significantly by gender ($U = 11,661.50$, $p < .001$). The female mean rank is significantly higher (194.63) than the male mean rank (154.84), meaning that the females had higher EAT-26 scores than the males.

BMI also differed significantly by gender ($U = 12,961.00$, $p = .033$). The increase in the proportion of males in the higher BMI categories meant that males also showed a higher mean rank (195.31) than females (171.10).

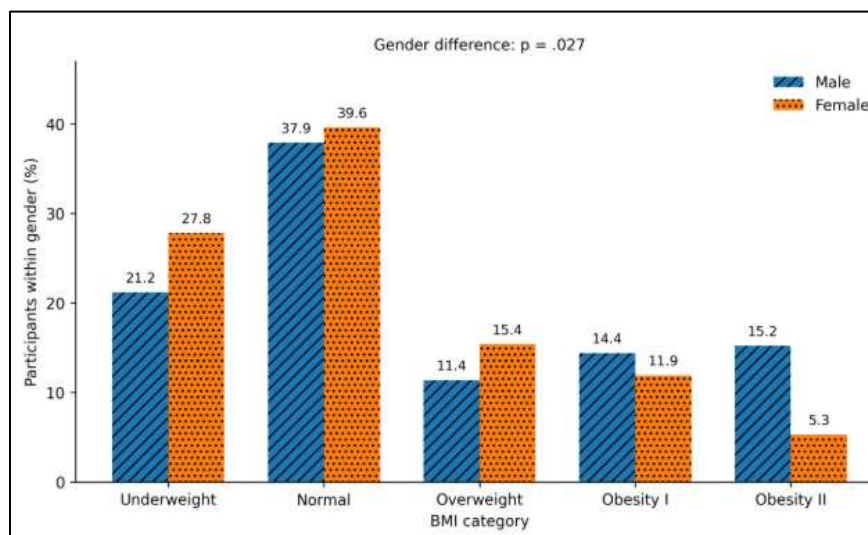


Figure 2. BMI classification by gender

Table 2: Gender differences in Internet Addiction Test, Eating Attitudes Test, and BMI

Variable	Male mean rank ($n = 132$)	Female mean rank ($n = 227$)	Mann–Whitney U	p value
IAT score	187.73	175.50	13,961.50	.282
EAT-26 score	154.84	194.63	11,661.50	<.001
BMI	195.31	171.10	12,961.00	.033

Note. IAT = Internet Addiction Test; EAT-26 = 26-item Eating Attitudes Test; BMI = body mass index.

Relationship between Internet Addiction, Eating Attitudes, and BMI

To explore the correlation between the Internet-addiction scores, eating-attitude scores, and BMI, Pearson correlation analysis was conducted (Table 3).

While there was a negative correlation between IAT and EAT-26 scores ($r = -.192$, $p < .001$) that was statistically significant, these analyses were preliminary and verification of this relationship is needed. The size of the relationship was small, with about 3.7% of the variance in scores on IAT and EAT-26 shared ($R^2 = 0.037$). Therefore, higher participants' IAT scores were correlated with lower participants' EAT-26 scores in the present set.

Results showed no significant correlation between Internet-addiction scores and BMI ($r = .028$, $p = .589$), on the other hand. There was very little correlation ($R^2 < .001$), which explained less than 0.1% of the variance in BMI. The present results suggest no direct link between the severity of the global scale of Internet addiction and that of participants' BMI.

Table 3: Correlations of Internet Addiction Test scores with EAT-26 scores and BMI

Variable	Pearson's r with IAT	p value	R^2
BMI	.028	.589	<.001
EAT-26 score	-.192	<.001	.037

Note. IAT = Internet Addiction Test; EAT-26 = 26-item Eating Attitudes Test; BMI = body mass index. Statistical significance was set at $p < .05$.

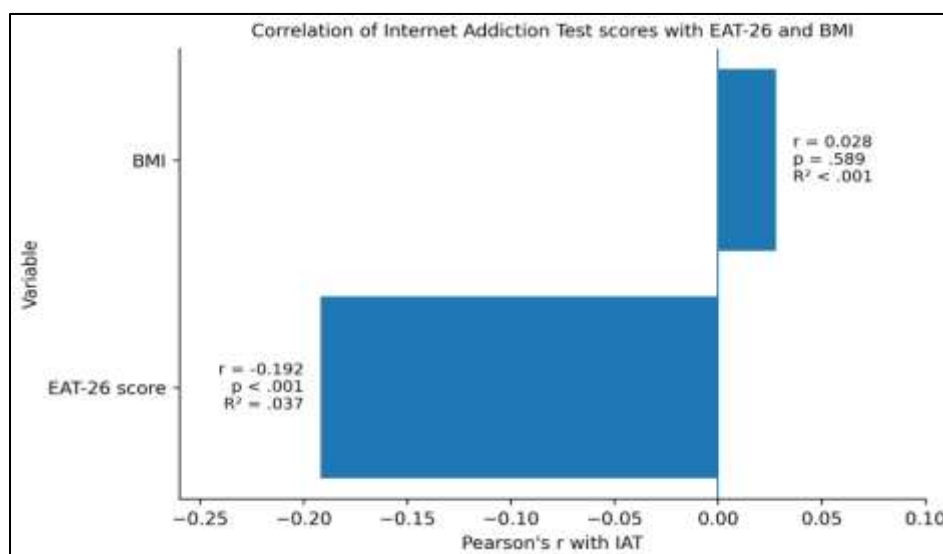


Figure 3. Relationship between Internet addiction and eating attitudes

Overall, the findings showed a high frequency of moderate Internet addiction among the participating university students. There was no significant gender difference in Internet addiction scores, while significant gender differences were found in eating-attitude scores and BMI. Internet addiction was significantly but moderately correlated with the EAT-26 score, but no significant correlations were found between Internet addiction and BMI.

DISCUSSION

This study was conducted by reviewing literature on Internet addiction, eating attitudes and Body Mass Index (BMI) of 359 students at the university in Karachi. The majority of participants also had above-normal average scores on the Internet Addiction Test (IAT), with 58.5% being classified as moderate Internet addicts and 7.5% as severe Internet addicts. Even after these results, no differences were found between the mean ranks of the IAT between men and women ($p = .282$), and the prevalence of IAD was similar for both males and females ($p = .080$). This aligns with Sedek and Nazri (2020), who also did not observe any significant gender difference between Internet-addiction scores among university students. The discovery might represent the normalisation of intensive Internet usage in all domains of life for both sexes.

Statistically significant differences were found between genders in eating attitudes and BMI. There were significant differences between females and males regarding EAT-26 mean ranks ($p < .001$), with higher mean ranks for the females, suggesting more disordered eating attitudes. This is similar to Kozybska et al. (2021), who found that the female students had higher eating-disorder scores. Males, however, did have significantly higher BMI ranks ($p = .033$) and also a higher overall prevalence of overweight and obesity among males compared to females (40.9% vs. 32.6%). This difference is significant as it indicates that higher eating-disorder risk does not equal higher BMI.

A weak but statistically significant negative correlation between IAT and EAT-26 scores ($r = -.192$, $p < .001$) was the most significant finding. This is not a common practice which is followed by many studies. There are positive relationships between problematic Internet use and disturbed eating reported by Ayran et al. (2021), Dorai et al. (2021),

Banna et al. (2023), Güneş et al. (2023), and Arslan et al. (2026). The same finding was presented by Sedek and Nazri in 2020, who reported a positive correlation between Internet addiction and risk of eating disorder. The negative correlation seen in the present study may thus be related to population-specific characteristics, cultural influences, limited variation due to excluding participants with diagnosed E. Ds or variations in scores and/or behaviour. The results must be taken with a pinch of salt and should be repeated due to the small effect size.

There was no correlation found between IAT and BMI ($r = .028$, $p = .589$). The finding is consistent with the results of the studies by Ayran et al. (2021), Dorai et al. (2021), Gündüz et al. (2019) and Taha et al. (2019), which found that there was no direct relationship between BMI and Internet addiction. Its findings, however, differ from those of Sedek and Nazri (2020), Arslan et al. (2026) and Yıldız et al. (2024), who reported a positive correlation between BMI/obesity and problematic Internet use.

The inconclusiveness of these findings implies that the relationship between Internet addiction and anthropometrics may be indirect. The use of the Internet could affect eating behaviours, sleep habits, activity and sedentary lifestyle even if there are no immediate BMI changes. This is in accord with the study carried out by Kamran et al. (2018), where they correlated 'Internet addiction' with the following behaviours of Pakistani students: Skipping breakfast, snack consumption, lower grade of eating, lack of physical activity and disturbed sleep. Thus, BMI might be inadequate to detect the acute health consequences of addictive Internet use.

The study has two limitations: the cross-sectional design, convenience sampling and the use of self-reported behavioural measures. Nevertheless, the simultaneous assessment of IAT, EAT-26, and BMI provides useful evidence from an underrepresented Pakistani university population.

CONCLUSION

In conclusion, problematic Internet use was highly prevalent among university students in Karachi, with moderate Internet addiction representing the most common category. . Female and male groups did not differ significantly on Internet-addiction scores; however, there were significant differences between females and males with respect to EAT-26 scores and BMI ranks.

There was a weak but significant negative correlation between IAT and EAT-26 scores, and the correlation between IAT and BMI scores was not significant. The results indicate that the issue with Internet use might be related to eating-related behaviours rather than to body weight. The surprising negative correlation between the IAT and eating attitudes also suggests that the relationship between Internet use and eating attitudes could also differ across cultural and student populations.

Longitudinal and multicentre research is needed in the future, targeting potential mediators to better understand the relationship between problematic Internet use and disordered eating and weight-related outcomes among university students, specifically sleep, physical activity, psychological distress and diet.

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