



## Examination of the Breakfast Practices among Male Students and their Impact on Health and Scholarly Achievement at UAF

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### ABSTRACT

Breakfast is considered the most important meal. However, the practice of skipping it has become a routine practice among students in universities, due to lifestyles changes and irregular routines. Skipping breakfast can lead to negative consequences amongst students i.e. impact on physical and cognitive growth. This study was therefore conducted at the University of Agriculture Faisalabad, to assess the breakfast habits of male students residing in hostels. Study encompasses impact of skipping breakfast on students' health and their academic performance. The results reveal that the majority of respondents (79%) have spent more than three years in the hostels. Only 41.2% students took their breakfast regularly. Students who skip breakfast experienced anxiety, depression, and stress during classes. Students responded that taking breakfast is vital to stay focused in class and be creative. Further, the causes of skipping breakfast found to be developing a habit of skipping, time pressure to attend morning classes. The study recommends of awareness and behavioral campaigns for students to promote healthy lifestyle.

**Keywords:** Breakfast habits, University students, Academic performance, Hostel life, Cognitive function, Educational outcomes

### INTRODUCTION

Breakfast consumption has long been recognized as a fundamental component of healthy lifestyle practices, yet its specific impact on students' academic performance and daily functioning remains a critical area of educational and public health concern (Kumar & Rizvi, 2024; Adolphus et al., 2019). There is growing evidence that skipping breakfast or fasting has a negative impact on cognition, motivation, academic achievement, and test scores of children. Regular breakfast consumption is positively associated with academic achievement in children and adolescents. Hungry children may lack the energy and motivation to participate in classroom activities. At the same time, malnutrition and micronutrient deficiency have been shown to affect physical, mental, and social health and reduce cognitive function (Gao et al., 2021).

The breakfast intake and academic achievement association is not simple because it consists of instant physiological response, mental ability, and prolonged academic performance. Research indicates that the amount of breakfast consumed is what dictates the amount of glucose that the brain can get, and this dictates attention, memory and ability to learn directly. The presence of the positive association between breakfast consumption and academic achievement, comprising grades, test marks, attendance, and behavior, has been identified in prior research (Asadullah et al., 2024; Rampersaud et al., 2019).

The habitual skipping of breakfast that has two levels of interrelation: the physiological health of the body and the cognitive-academic excellence. Lack of breakfast has been associated with ineffective metabolism, disturb body glucose levels, leading to insulin resistance and Type 2 diabetes in the long term. It is also linked with dyslipidemia, including elevated levels of LDL cholesterol. In addition, breakfast skipping habit has a propensity to overeating later in the day, which leads to overall higher dietary caloric consumption, leading to weight gain and obesity, a paradoxical result of skipping breakfast to lose weight (Akhlq et al., 2025; Kral et al., 2020; Kim et al., 2023). Further, nutritiously poor breakfast can lead to the feeling of low energy, boredom, and loss of concentration, which will complicate the process of being physically active (Ashfaq et al., 2023). The sum of all these processes raises

some serious questions about the impact of breakfast habits both in the short-term and in the long-term on cognitive functioning and overall academic performance of students.

Despite extensive studies on the nutritive value of breakfast, there is still a need to have an all-around knowledge about how students perceive and experience the effect of breakfast consumption intake on their daily lives, especially day-to-day academic activities. Even though the objective measures of cognitive functions can be quite informative, the subjective experience of students concerning the impact of breakfast can be of utmost value in the development of the particular interventions and education policies. Interestingly, literature has widely reported the correlation between academic performance and breakfast intake. It has also been discovered that regular breakfast intake leads to high attendance, active involvement in classroom discussions, and better educational outcomes among students (Birch and Ventura, 2020). Therefore, it is vital to explore students' perceptions of the importance of breakfast intake and how they feel about when they skip (Ayoub et al., 2024; Reuter et al., 2021).

Although the problem concerning the importance of breakfast well recognized, the literature gap in the field exists in relation to its effect on academic outcomes in Pakistani universities. Previous studies are focused on children of school age while studies dealing with perception and effect of breakfast intake on male students in higher education institutions is limited. Therefore, the current research examined the causes of skipping breakfast, impact of eating and skipping breakfast on the physical state and learning outcomes, as perceived by students themselves. By taking into account the negative implications of missing breakfast and the benefits of having breakfast routinely, this paper seeks to provide an in-depth insight into the impact of this nutritional practice on the academic lives of students.

## MATERIALS AND METHODS

The present study was conducted to assess the breakfast habits and exam performance of the male respondents currently spending a hostel life in the University of Agriculture Faisalabad. A list of all boarder respondents was collected from the Hall Warden office. The total population of the study was 3014 respondents (students who were residing in different hostels of the university). From population, 119 respondents were selected for data collected by using a simple random sampling technique.

Keeping in view the objectives of the research, a well-structured questionnaire was developed for the respondents. During the development of the questionnaire, it was consulted with various Professors at the Institute of Agricultural Extension, Education and Rural Development at the university and their suggestions/comments were incorporated. The questionnaire was developed in English and then was translated into Urdu language for the convenience of the respondents for ease in data collection. It was pre-tested on 14 respondents who were residing at Hashmi Hall and Faisal Hall and were not included in the actual sample to measure Cronbach's Alpha value, which is 0.83 which was found using SPSS. Considering, the suitability of Likert scale for assessing the respondents' attitude and perceptions, mostly questions were bipolar, and two five-point Likert scales were also used i.e. 1. Never 2. Rarely 3. Sometimes 4. Often 5. Always and also 1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree.

A descriptive statistic such as means, standard deviation, frequency, rank order etc. was run to analyze the data by using a software named Statistical Package for Social Sciences (SPSS).

## RESULTS AND DISCUSSION

Table 1 indicated that the majority of respondents (53.8%) fell within the age range of 24-26 years, while 30.3% were categorized as up to 23 years, and only 16% of respondents were in the 27-35 years category. A significant 81.5% of the participants identified as undergraduates. Conversely, 13 respondents, representing approximately 10.9%, held post-graduate degrees, while merely 7.6% of the respondents were pursuing PhD qualifications. Table 1 also presents the duration of time that the respondents have spent in hostel living. Approximately 56.3% of the participants reported having resided in the hostel for over three years, while the remainder indicated an experience of one to three years in the hostel environment. Table 1 also indicates that 79% of the respondents rely directly on their parents or guardians for their pocket money and expenses. Among the respondents, 10.1% are engaged in private or home tutoring roles. Approximately 11% rely directly on their scholarships or possess alternative income sources. Table 1 indicated that 84.9% of respondents are middle-class. While 10.9% came from wealthy households. Only 4.2% of responders come from lower-class backgrounds. The table presented demonstrates that a significant portion of respondents, specifically 41.2%, engage in the practice of having breakfast on a daily basis. Approximately 48.1% consume breakfast based on their mood and the time available.

Approximately 41% of students tend to skip breakfast, a figure significantly higher than the 26.3% reported in a study conducted by Zulfiqar et al. (2024). in Pakistan. This finding highlights a significant prevalence of irregular breakfast consumption among students. Comparable studies in Pakistan and internationally have emphasized that breakfast skipping is a common phenomenon among university students, influenced by late-night study, hostel

living, financial issues, and lack of awareness (Adolphus et al., 2019; Watson et al., 2021). Skipping breakfast has been linked to poor academic performance, lower concentration, and adverse health outcomes.

**Table 1:** Distribution of respondents based on their demographic-characteristics

Age	Frequency	Percent
Up to 23	36	30.3
24 to 26	64	53.8
27 to 35	19	16.0
Education level		
Graduation	13	10.9
Post-Graduation	97	81.5
PhD	9	7.6
Hostel life (in years)		
up to 1y	27	22.7
1-3y	25	21.0
Above 3y	67	56.3
Source of pocket money		
Guardian	94	79.0
Tuition	12	10.1
Scholarship	4	3.4
Another	9	7.5
Living Standard		
High	13	10.9
Middle	101	84.9
Low	5	4.2
Breakfast Habit		
Never	13	10.9
Daily	49	41.2
2/3 times in week	25	21.0
3/4 times in week	10	8.4
Sometimes	22	18.5
Total	119	100.0

Table 2 presents the effects of skipping breakfast on students' physical and mental well-being, ranked by weighted scores (WS) and mean values. The analysis reveals that concentration difficulties emerged as the most prominent consequence of breakfast skipping, with a mean score of 3.14 (SD = 1.39, WS = 374, Rank 1st). This finding indicates that students consistently experience significant challenges in maintaining focus during academic activities when they skip breakfast. Hunger sensations ranked second (Mean = 2.91, SD = 1.30, WS = 346), followed closely by hunger-induced headaches (Mean = 2.88, SD = 1.28, WS = 343). These physiological responses demonstrate the direct impact of breakfast omission on students' immediate physical comfort and cognitive capacity. The high mean scores for these top three effects suggest that the majority of respondents experience these symptoms regularly when skipping breakfast. Psychological effects were also notable, with anxiety and anxiousness ranking fourth (Mean = 2.49, SD = 1.27, WS = 296). This finding aligns with previous research indicating that nutritional status significantly influences mental health and emotional regulation among students (Mardiyah et al., 2024; Said et al., 2025). The presence of fatigue (Mean = 2.33, Rank 5th) and stress (Mean = 2.26, Rank 6th) further emphasize the comprehensive impact of breakfast skipping on students' overall well-being. Less frequent but still significant effects included drowsiness (Mean = 2.08, Rank 7th) and dizziness (Mean = 1.94, Rank 8th). The relatively lower means for these symptoms suggest they occur less consistently across the student population, though they remain concerning health indicators.

These findings reinforce the critical role of breakfast in maintaining both health and academic performance among male students at UAF. The results revealed that skipping breakfast significantly affects concentration, hunger levels, and cognitive stability, while breakfast consumption promotes active participation, focus, and interaction in class. These findings are consistent with previous studies which emphasized that breakfast omission impairs memory, attention, and learning capacity (Micha et al., 2021; Ashfaq et al., 2023). Moreover, the psychological consequences such as anxiety, stress, and fatigue observed in this study parallel the results of Akhlaq et al. (2025) and Abro et al. (2021), who associated irregular breakfast habits with increased emotional distress.

### Effects of Taking Breakfast on Educational Performance

The analysis of breakfast consumption's positive effects on education reveals a different pattern of impacts compared to the negative effects of skipping breakfast. The highest-ranked benefit was staying active in contact with teachers (Mean = 2.53, SD = 1.20, WS = 301), indicating that well-nourished students demonstrate better engagement with instructors and participate more actively in classroom interactions.

**Table 2:** Distribution of respondents based on their habits of skipping and taking breakfast

Effect of skipping Breakfast on their body	Mean	SD	WS	Rank
You can't focus so much on reading	3.1429	1.39178	374	1 <sup>st</sup>
Feel hungry	2.9076	1.30183	346	2 <sup>nd</sup>
Headaches due to hunger	2.8824	1.28338	343	3 <sup>rd</sup>
Feel anxiety and anxious	2.4874	1.27469	296	4 <sup>th</sup>
Feel tired	2.3277	1.50203	277	5 <sup>th</sup>
Feel stress	2.2605	1.41099	269	6 <sup>th</sup>
You feel drowsy	2.084	1.23219	248	7 <sup>th</sup>
You start to feel dizzy	1.9412	1.18818	231	8 <sup>th</sup>
Effect of taking Breakfast on their education				
Stay active in contact with your teachers	2.5294	1.19904	301	1 <sup>st</sup>
You stay mentally active	2.4958	1.14887	297	2 <sup>nd</sup>
You ask questions in class	2.4958	1.23422	297	3 <sup>rd</sup>
Focus in your class increases	2.479	1.22716	295	4 <sup>th</sup>
You get good marks in the quiz	2.1261	1.05409	253	7 <sup>th</sup>
You work happily with friends	2.1261	1.10127	253	8 <sup>th</sup>
Your attendance is good	2.0588	1.11457	245	9 <sup>th</sup>
You have to be easy to understand	1.9832	0.98276	236	11 <sup>th</sup>
You spend most of the day reading	1.8992	0.94236	226	12 <sup>th</sup>
You submit the assignment on time	1.8908	1.02337	225	13 <sup>th</sup>

Staying mentally active ranked second (Mean = 2.50, SD = 1.15, WS = 297), closely followed by increased classroom questioning behavior (Mean = 2.50, SD = 1.23, WS = 297, tied for 3rd). Enhanced class focus ranked fourth with a nearly identical score (Mean = 2.48, SD = 1.23, WS = 295). These top-ranking effects demonstrate that breakfast consumption primarily influences students' cognitive engagement and interactive learning behaviors. Notably, the means for positive breakfast effects (ranging from 1.89 to 2.53) were generally lower than the means for negative skipping effects (ranging from 1.94 to 3.14). This disparity suggests that students may be more acutely aware of the adverse consequences of breakfast skipping than the specific benefits of breakfast consumption, or that the negative effects are more immediately noticeable. Academic performance indicators showed mixed results. While quiz performance improvement ranked 7th (Mean = 2.13, WS = 253), other academic behaviors such as assignment submission timeliness ranked much lower (Mean = 1.89, Rank 13th). This pattern indicates that breakfast consumption may have stronger immediate effects on classroom engagement than on long-term academic task completion.

On the other hand, the positive outcomes that the regular intake of breakfast has on the classroom work and the psychological well-being are quite similar to the results of AlFaris et al. (2022), who emphasized breakfast as one of the most important food habits to improve academic performance. The relatively lower placed benefits, such as the good attendance, prompt delivery of assignments and improved social interaction, however, still resonate with the studies by AlTamimi et al. (2022) and Ricotti et al. (2021), who referred to more general academic and behavioral advantages of eating breakfast. Overall, these pieces of evidence suggest that breakfast is not just a nutritional necessity but also an academic facilitator, which is directly related to positive learning environments and student performance.

**Table 3:** Distribution of respondents according to reasons why they skip their breakfast.

Statement	Mean	St. Deviation	Weighted Score	Rank
Not a habit	4.003	0.36784	476	1
I don't like to eat early morning	3.8319	0.37551	456	2
There is no time	3.8731	0.42059	361	3
Unknown Reasons	3.7683	0.48198	448	4
There is no hunger	3.7647	0.42598	418	5
Nothing available with fine quality and taste	3.4445	0.48198	319	6
Do not have money for breakfast	3.2143	0.45366	383	7
To lose weight	2.8803	0.48478	243	8
The stomach does not digest	2.6303	0.48478	313	9
Smoke instead of breakfast	1.5798	0.49567	188	10

According to the Table 3, the most respondents agreed that skipping breakfast has become a habit, as the statement is ranked first with the highest mean value (M = 4.003), indicating behavioral tendency and lifestyle choices among students to say skipping breakfast as habit rather than any external limitations. The second ranked reason behind not taking breakfast was the statement I don't like to take meal early in the day with mean value of 3.8319. This is followed closely by students' agreeing on statement that there is no time for breakfast (M = 3.873). The reason may be students sleep late night and awake late in the morning which make provide them little time to be ready for the morning classes, hence skipping breakfast. As most of the classes started at early mornings and

respondents have to reach and attend those classes on times. For instance, a previous study mentioned that “the main reasons for missing breakfast are lack of time and the gradual disappearance of the breakfast habit. Too much hurry in the morning is associated with a less healthy and less frequent breakfast” (Córdoba Caro et al., 2014).

These results are very consistent with the prior studies by Timlin & Pereira, (2007) and Adolphus et al., 2019, according to whom, students and young working individuals have tendency to skip breakfast because of morning time pressures and the pressure of workload. There is also moderately high response, students agreed with that they feel no hunger in morning. Study by Scheer (2013) says that circadian rhythm or natural body's clock diminish morning appetite and feeling of hunger, helping individuals go for longer their fasting.

On the other hand, there is comparatively lower mean against statements unavailability of quality and tasteful breakfast and skipping breakfast to lose weight, indicate that students are neutral on this matter. Similar is the case with the statement about financial issues forcing them to skip breakfast, which is ranked seventh on list. This suggest that some students are facing socio-economic pressure that affect their nutritional intake. While, the statement that students skip breakfast because of stomach issues and the habit of smoking in the way of taking breakfast attained least mean values (2.6303, 1.5798), suggesting that students disagree with these factors.

## CONCLUSION

The results reveal that the majority of respondents (79%) spent more than three years in the hostel and were dependent on guardians for study expenses and pocket money. 10.1% respondents met their expenses by earning from tuitions. The majority of respondents were undergraduate (81.5%), while 10.9% and 7.6% post-graduation and PhD levels, respectively. Only 41.2% students took their breakfast regularly. The findings of the study prove that breakfast habits to have a clear and significant impact on a number of spheres of the student life, both physically and academically. Students who skip breakfast experienced anxiety, depression, and stress during classes. Students responded that taking breakfast is vital to stay focused in class and be creative. Further, the causes of skipping breakfast found to be developing a habit of skipping, time pressure to attend morning classes. Such outcomes can be instructive to policies for promoting healthy lifestyle among students in universities, residing in hostels. Additionally, future studies research focus on longitudinal studies examining how consistent breakfast consumption influences sustained educational engagement and performance outcomes.

## Declarations

## Funding

This study didn't receive any funding from any agencies in the public, commercial, or non-profit sector.

## Conflicts of Interest

Authors have no conflicts of interest.

## Data Availability

Data will be available from the corresponding author upon request.

## Ethics Statement

The study involving human participants was approved by the University of Agriculture, Faisalabad's Institute of Agricultural Extension, Education, and Rural Development. The studies were conducted in accordance with local laws and institutional norms. The participants provided written informed consent to participate in this study.

## Authors' Contribution

Aman Naz; Conceptualization, Data Curation, Methodology, Data Original draft, Data Collection, Shoukat Ali; Supervision, Writing, Review and Editing, Ghadah Al Murshidi; Writing, Review and Editing, Muhammad Younas; Writing, Review and Editing

## Generative AI Statements

The authors declare that no Gen AI/Deep Seek was used in the writing/creation of this manuscript.

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