



## HOSTEL FOODS AND HUMAN NEEDS: A MASLOVIAN ANALYSIS OF MOTIVATION IN ISLAMIC BOARDING SCHOOLS

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### ABSTRACT

This study investigates the impact of hostel food provision on student motivation and psychological well-being through the lens of Maslow's Hierarchy of Needs and Islamic character nurturing (*tarbiyah*). Using a descriptive-correlational design, data were collected from 116 male students in Bangladeshi Islamic boarding schools (madrasahs). The research examined the relationship between food satisfaction, socioeconomic background, and the progression toward higher-level psychological needs such as self-actualization. Findings revealed a significant positive correlation between food satisfaction and the fulfillment of physiological needs ( $r = .333$ ), though the moderate strength suggests that spiritual framing—specifically the virtues of patience (*sabr*) and gratitude (*shukr*)—acts as a critical psychological buffer. Notably, an independent samples t-test indicated that students from non-affluent backgrounds reported significantly higher motivation levels ( $M = 3.92$ ) compared to their affluent peers ( $M = 3.65$ ), suggesting a "contrast effect" during the transition to modest hostel life. Furthermore, regression analysis confirmed that perceiving food simplicity as a moral exercise significantly predicts progression to higher-order Maslowian needs ( $R^2 = .281$ ) and strongly correlates with self-discipline ( $r = .573$ ). The study concludes that while nutritional adequacy is foundational, the intentional integration of "spiritual simplicity" into food management serves as a proactive tool for character development and academic motivation.

### KEYWORDS

Hostel Food Management, Maslow's Hierarchy of Needs, Student Motivation, Islamic Boarding Schools, Tarbiyah, Spiritual Simplicity, Cognitive Reframing, Bangladesh.

### INTRODUCTION

Nutrition is one of the most fundamental pillars of a student's well-being, particularly in boarding institutions such as Islamic madrasahs, where food provision is centrally managed and routine-bound. Hostel meals are more than just a source of sustenance—they are part of the hidden curriculum that shapes character, motivation, discipline, and academic engagement (Kasingku, 2023). In Islamic education, nourishment is tied not only to physical development but also to spiritual balance, gratitude (*shukr*), and refinement of the soul (*tazkiyah al-nafs*). When students, especially those from affluent families, are habituated to abundance, their

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exposure to modest hostel meals may serve as a means of moral and motivational training (Rajalakshmi & Harshavardhini, 2024).

With the lens of Abraham Maslow's hierarchy of needs (Zalenski & Raspa, 2006), this study explores the potential of using structured simplicity or artificial food scarcity as a strategic educational tool in Islamic residential schools. The aim is to evaluate how hostel food provision affects the motivational levels and psychological needs of students and to assess whether simplification of food access can positively influence their cognitive focus, religious commitment, and personal growth.

### **Food Items in Hostel Settings**

While it's true that parents often worry about their children's food quality when they are in a hostel, it is essential to recognize that other factors play a critical role in a child's development (Ohri-Vachaspati, 2014). Many parents may overemphasize food quality, overlooking the importance of social interactions, emotional support, and life skills that children can gain while living away from home.

Additionally, hostel environments often encourage independence and self-reliance, which are crucial for personal growth. Furthermore, children can learn to make healthier food choices on their own and develop a balanced perspective on nutrition, rather than relying solely on parental guidance. Thus, while food quality is important, it should not overshadow the holistic development opportunities that hostel life provides (Islam et al., 2020).

Kasingku (2023) noted that food provision in residential educational institutions is more than a logistical necessity; it is a critical determinant of students' health, learning potential, emotional well-being, and even social development. In the context of Islamic boarding schools (madrasahs), hostel food practices often reflect institutional values such as simplicity, modesty, routine-bound life, or dietary uniformity (Yahya et al., 2021).

However, the composition, variety, and nutritional adequacy of these food items have a direct impact on students' growth, attention span, sleep quality, and immunity (Bevans et al., 2011).

In hostels, the most commonly served food items include rice, lentils, vegetables, eggs, and occasionally chicken or fish (Krešić et al., 2008; Huang et al., 1994). These items often form a carbohydrate-heavy and protein-deficient diet. While reliance on rice and pulses provides caloric energy, studies note a lack of fresh fruits, dairy products, and micronutrient-rich components such as leafy greens and citrus fruits.

Adolescents need for their development fruits and dairy products (Norris et. al 2022). Usually rural or low-budget madrasahs provide limited food choices.

Many expert nutritionists emphasize the importance of age-appropriate and balanced diets in institutional settings, especially for school-aged children and adolescents. According to established guidelines, hostel food must include a mix of macronutrients (carbohydrates, protein, and fat) and essential micronutrients such as vitamins A and D, calcium, and iron (Serrem et al., 2020).

Nevertheless, existing research indicates that while caloric needs may be met in most madrasahs, meals are often repetitive and lack dietary diversity. Common patterns include paratha with lentils for breakfast, white rice with a small serving of vegetables or curry for lunch, and khichuri (a rice-lentil mix) or noodles in the evening. Over-reliance on refined carbohydrates without sufficient protein and fiber leads to short-term satiety but poor long-term energy regulation (Mehta et al., 2013; Chen et al., 2018).

In Islamic philosophy, food is not only sustenance but also a moral and spiritual experience. The Qur'an frequently refers to wholesome and lawful (ṭayyib) food, and the Prophet

Muhammad modeled simplicity in diet, often consuming dates, barley bread, milk, and vinegar.

Aboul-Enein (2017) observes that Inspired by this tradition, many madrasahs intentionally serve simple food as part of *tarbiyah* (character training), promoting gratitude and modest living. However, without proper nutritional planning, this simplicity can turn into insufficiency, resulting in micronutrient deficiencies, fatigue, or reduced immunity among students (Pennacchio, 2023).

International literature further confirms that food served in institutional hostels should meet not only quantity requirements but also sensory and psychological variety. Repetitive menus can lead to “menu fatigue,” which reduces food intake and increases dissatisfaction (Ko, 2008).

For students from relatively affluent backgrounds, the contrast between home food and hostel meals can be particularly challenging. This mismatch may cause initial resistance, dissatisfaction, or even appetite loss. Therefore, variety—rather than luxury—should be a key consideration in food planning for boarding students (Tasnim & Patwary, 2023).

Moreover, Tomer & Chaudhary (2024) demonstrate that the absence of fruits, dairy products, and lean proteins in hostel menus has been linked to slower physical development and increased susceptibility to illness among adolescents.

Some madrasahs have introduced weekly “fruit days” or added fortified milk, but these are often inconsistent or budget-dependent. Seasonal or local produce such as bananas, papayas, or guavas can be cost-effective additions, yet logistical challenges in procurement and storage often prevent implementation. While hostel food items in madrasahs generally reflect values of simplicity and routine, their nutritional design frequently fails to meet the developmental needs of growing students. Research highlights the need for improved menu planning that integrates Islamic ethical principles with modern dietary science.

Keleher et al. (2024) point out that interventions such as weekly menu diversification, inclusion of low-cost fruits and dairy products, and basic nutrition training for kitchen staff can significantly enhance hostel food quality while maintaining religious and cultural alignment.

Food items of typical hostels are given in Table 1. Fruits like bananas, papayas, and guavas can be incorporated into the menu to enhance nutritional diversity and support the health of students, especially in resource-limited settings. According to some effective food guidelines, such fruits meet dietary guidelines promote a holistic approach to student health and well-being (Louie, 2014).

Table 1: Food items of typical hostels

Day	After Fajr	Breakfast	Tiffin	Lunch	Snack	Dinner
Saturday	Tiffin Biscuit	Rice + Aloo Bhaji + Egg	Samucha/ Singara	Chicken + Pulse + Vegetable	Bun/Butter	Chicken Fry + Vegetable
Sunday	Tiffin Biscuit	Puri + Aloo Tarkari	Shemai	Beef + Vegetable + Pulse	Fruit Biscuit	Chicken + Pulse
Monday	Chocolate Biscuit	Chhola + Paratha	Chocolate Biscuit	Chicken + Khichuri	Singara	Egg + Vorta + Pulse
Tuesday	Cake	Bread + Jelly	Chocolate Biscuit	Rice + Vorta + Pulse + Fried Fish	Muri Mixture	Vorta + Pulse + Milk

Wednesday	Butter Bun	Tenhri	Butter Bun	Rice + Vorta + Pulse + Fried Fish	Bread with Milk	Chicken + Pulse
Thursday	Cake	Paratha + Pulse	Cake	Fish + Pulse + Vegetable	Chocolate Biscuit	Chicken + Pulse + Milk
Friday	Tiffin Biscuit	Khichuri + Egg	Cake	Chicken/Beef Biryani + Salad	Pitha	Chicken + Pulse + Vegetable

### Education System of a Hybrid Model Islamic Boarding Madrasah

The education system of a hybrid model Islamic boarding madrasah integrates traditional Islamic values with modern educational practices, creating a comprehensive and adaptive learning environment. This model is exemplified by institutions like Pondok Modern Darussalam Gontor, which combines Islamic religious sciences with general knowledge in a unified curriculum. This model also incorporates foreign language instruction and leadership training (Nurfadli, 2025).

The modernization of Islamic boarding schools involves a gradual transition from traditional methods to more structured systems, integrating modern curricula and reforming management practices in order to meet contemporary educational demands.

For instance, Mambaus Sholihin Islamic Boarding School implements an integrated education system that combines religious sciences with general education. As a result, students become well-versed in both faith and modern science and technology (Ahsantudhonni & Maarif, 2022).

Similarly, Saifuddin et al. (2023) mention that Darussa'adah Cot Tarom Baroh integrates religious and general knowledge, formal and non-formal curricula, as well as extracurricular activities, thereby enhancing both the learning experience and the overall quality of students.

Pondok Pesantren Al-Falah in Banjarbaru exemplifies a full integration model. These institutions maintain traditional Salafiyah characteristics while operating under a unified foundation that supports both school and pesantren education (Qomariah et al., 2021).

According to Muhammad et al. (2024), the role of madrasah-based management is crucial in improving educational quality. This approach involves collaboration with various stakeholders and the use of both ministry-prescribed and pesantren-specific curricula.

The hybrid model also addresses the challenges of the modern era by combining traditional and modern components, as proposed in the integrated paradigm, which aims to produce individuals competent in both religious and scientific fields (Afifah & Asyadulloh, 2021).

Khalaf Islamic boarding schools further illustrate this model by balancing religious education with contemporary science. These schools adopt modern learning systems alongside traditional instructional methods (Suhartini et al., 2025).

The integration of pesantren and madrasah, as advocated by KH. Muhammad Syamsul Arifin, is essential for bridging knowledge gaps and ensuring relevance in an increasingly globalized world (Muis & Huda, 2023).

Lastly, the Madrasah Diniyah Ulya model emphasizes moral formation and personal development, preparing students for higher education and societal roles while maintaining Islamic values (Supriyono, 2023). This hybrid model thus represents a dynamic and holistic

approach to Islamic education, blending tradition with modernity to equip students for the complexities of contemporary life.

### **Why Motivation Remains Low Despite Sufficient Food**

Food quantity and nutritional quality are not synonymous concepts; they represent two distinct aspects of our dietary choices. The quantity of food refers to the amount we consume, which can significantly influence our overall health and well-being. On the other hand, nutritional quality pertains to the specific nutrients and health benefits that the food provides (Rajendram et al., 2013).

While it is possible to consume large quantities of low-nutrient foods—such as processed snacks or sugary beverages—this can lead to overconsumption of calories without delivering essential vitamins, minerals, and other nutrients that our bodies need to function optimally. Conversely, one can consume smaller portions of nutrient-dense foods, like fruits, vegetables, whole grains, and lean proteins, which provide a wealth of health benefits, promoting vitality and reducing the risk of chronic diseases. Therefore, it is crucial to strike a balance between the quantity of food consumed and its nutritional quality. Focusing solely on one aspect can lead to imbalances and health issues. A well-rounded diet emphasizes not only the amount of food but also prioritizes high-quality, nutrient-rich options to support overall health and well-being (Echouffo-Tcheugui & Ahima, 2019).

Numerous studies emphasize that food sufficiency (i.e., not being hungry) does not always equate to optimal brain functioning or motivation. Diets high in refined carbohydrates but low in protein, essential fats, and micronutrients lead to short-term satiety but poor long-term cognitive performance. Hostel meals heavy in white rice, oil, and sugar may fill stomachs but do not support optimal memory, attention, or emotional regulation needed for academic success (Prangthip et al., 2021).

### **RESEARCH PROBLEM**

According to Abraham Maslow's Hierarchy of Needs, providing hostel students with sufficient food addresses their basic physiological needs, which constitute the foundational level of the theory. However, merely fulfilling these needs does not guarantee students' overall well-being or motivation if higher-level needs remain unmet.

Rahmadania & Aly (2023) show that Maslow's theory posits that once physiological needs are satisfied, individuals strive to fulfill higher-order needs such as safety, love and belonging, esteem, and self-actualization. In educational settings, fulfilling only physiological needs—such as providing adequate food—may be insufficient to enhance students' learning motivation or academic performance when other needs are neglected. For instance, a sense of security, encompassing both physical and emotional safety, is essential for students to concentrate effectively on their studies.

Furthermore, the need for love and belonging, which can be nurtured through supportive peer relationships, mentoring, and positive institutional culture, plays a crucial role in creating a conducive learning environment. Esteem needs—manifested through recognition, appreciation, and respect—are equally important in fostering students' self-worth and sense of achievement (Putri & Ibatiyani, 2025; Rahmadania & Aly, 2023).

Finally, opportunities for self-actualization, such as participation in creative, reflective, and critical-thinking activities, enable students to realize their full potential and personal growth (Rahmadania & Aly, 2023). Therefore, while the provision of sufficient food is necessary, it is not sufficient on its own to ensure the holistic development and sustained motivation of hostel students.

Educational institutions must therefore adopt a comprehensive approach that addresses all levels of Maslow's hierarchy of needs in order to effectively support students' academic success and personal development (Anshori et al., 2024).

### **THEORETICAL FRAMEWORK**

This study is primarily guided by Abraham Maslow's theory of human motivation, specifically his five-tier hierarchy of needs, first proposed in 1943 and later refined in subsequent works (Milgram et al., 1999). The framework categorizes motivation into sequential levels: physiological needs, safety, love and belonging, esteem, and self-actualization. Maslow posits that unless basic needs—such as food and sleep—are met, individuals will not be able to progress toward higher-level psychological or cognitive goals. This theoretical model has been widely applied in educational psychology to understand student behavior, engagement, and learning motivation.

In the context of Islamic boarding schools, the relevance of Maslow's model lies in its ability to bridge physical needs with moral and intellectual development. Hostel food, as a core aspect of institutional care, becomes central to satisfying the first level of Maslow's pyramid—physiological needs. If students experience hunger, dissatisfaction, or lack of energy due to poorly structured meals, their capacity for academic focus, spiritual growth, and social engagement is diminished. Conversely, if basic needs are fulfilled, students are more likely to seek higher levels of achievement and character development.

These students often enter hostel life with expectations of comfort and variety. If those expectations are unmet, they may initially experience frustration, yet this gap can be reframed as an opportunity for transformational learning. When managed ethically, the restriction of excess can foster self-awareness, humility, and intrinsic motivation—qualities aligned with both Maslow's upper levels and Islamic *tarbiyah* (nurturing of character). Therefore, structured food simplicity may act as both a pedagogical tool and a motivator toward self-actualization.

Moreover, the teachings of Islam offer a parallel motivational structure. The Qur'an encourages moderation: "Eat and drink, but do not be excessive" (Qur'an, 7:31), and the Prophet Muhammad modeled a life of intentional simplicity and gratitude. The harmony between Maslow's hierarchy and Islamic principles of food ethics provides a compelling dual framework to evaluate how hostel food systems influence the development of the whole student—physically, morally, and intellectually.

Together, these theories suggest that structured hostel food practices, far from being incidental, are integral to educational outcomes. The current study posits that if food routines are intentionally designed along with Maslow's motivational hierarchy and the Islamic path of character formation, students' outcome will be elevated.

### **RESEARCH OBJECTIVES**

This study aims to achieve the following objectives:

1. To assess the adequacy of hostel food in fulfilling the physiological needs of hostel students of Islamic schools.
2. To evaluate the motivational impact of simplified food routines on students from affluent backgrounds.
3. To examine the relationship between food provision and students' progression across Maslow's hierarchy of needs.
4. To recommend strategies for integrating food simplicity as a moral and motivational tool in hostel management.

## **LITERATURE REVIEW**

### **Impact of Hostel Diets on Cognitive Development**

The physiological impact of monotonous or simple hostel diets on students' cognitive performance is multifaceted, as evidenced by various studies. A diet lacking in diversity, often characterized by high fast food consumption, is linked to poorer cognitive outcomes, such as diminished executive functioning and visual memory, as observed in college students (Pilato et al., 2020).

Akbarzadeh et al. (2020) mention that this is further supported by findings that highlight the negative correlation between frequent fast food consumption and short-term memory performance among hostel students.

Additionally, inadequate nutritional intake, such as insufficient meals per day, is prevalent among students and is associated with poor academic performance, emphasizing the need for a balanced diet to support cognitive functions (Benites et al., 2024). The detrimental effects of poor dietary habits are compounded by the consumption of sugary drinks and processed foods, which are linked to learning difficulties and health issues like fatigue and anemia, further impairing cognitive abilities (Verduga et al., 2025).

Conversely, a balanced diet rich in fruits, vegetables, and proteins is associated with improved concentration, memory, and academic performance (Verduga et al., 2025). Moreover, the systematic review of medical students' dietary habits reveals a global trend of unhealthy eating patterns and sedentary lifestyles, which negatively impact cognitive capacity, underscoring the importance of nutritional interventions and education to foster healthier habits (García et al., 2025). Collectively, these studies suggest that monotonous hostel diets, often lacking in essential nutrients, can significantly impair cognitive performance, highlighting the critical need for dietary improvements to enhance students' academic success and overall well-being.

### **Nutritional Inadequacy and Academic Self-Efficacy**

Nutritional inadequacy in religious boarding settings can indeed contribute to "academic fatigue" and "lower self-efficacy," as evidenced by the broader implications of nutritional deficiencies on academic performance and cognitive functions. Research indicates that poor nutrition, characterized by inadequate intake of essential nutrients, negatively impacts students' concentration, memory, and overall academic performance, leading to increased fatigue and reduced self-efficacy (Verduga et al., 2025; Moyota-Flores & Piguave-Reyes, 2023). Specifically, deficiencies in nutrition are linked to decreased attention span, sleep problems, and cognitive impairments, which are critical factors in academic fatigue and self-efficacy (Moyota-Flores & Piguave-Reyes, 2023).

Although some studies, such as those conducted in La Molina, Peru, and Kupang, Indonesia, did not find a direct statistical relationship between nutritional status and academic performance, they highlight the complexity of factors influencing academic outcomes, suggesting that other variables, such as socio-economic status and parental involvement, may also play significant roles (Mendoza & Tejada, 2024; Bani et al., 2025). Furthermore, food insecurity, a common issue in boarding settings, exacerbates these challenges by contributing to poor mental health, increased absenteeism, and behavioral issues, which can further undermine students' academic confidence and energy levels. Therefore, addressing nutritional inadequacies in such environments is crucial for enhancing students' academic experiences and outcomes.

### **Structured Meal Program and Students Welfare**

Food interventions, whether through planned menus or addressing food scarcity, significantly influence the welfare of students in hostels. The provision of a structured meal program, as

seen in the study conducted at Pondok Pesantren Darusalam Bogor, can improve nutritional intake and reduce anemia among students, highlighting the positive impact of a planned food menu on student welfare (Kusumawati et al., 2019).

Conversely, food insecurity, a prevalent issue among tertiary students globally, poses a significant threat to student welfare. Studies from various contexts, including the U.S., South Africa, and Australia, consistently show that food insecurity is linked to poor physical and mental health, academic performance, and overall well-being (Munro & Msimango, 2023; Gallegos et al., 2014). For instance, research at Montana State University revealed that food insecurity affects dietary quality and mental health, exacerbated by the COVID-19 pandemic (Warne et al., 2023).

Similarly, South Asian international students in the U.S. face unique challenges due to financial constraints and cultural barriers, impacting their health and social lives (Henry et al., 2025). Munro & Msimango (2023) note that the situation is mirrored in South Africa, where nearly half of the student population at the University of KwaZulu-Natal experiences severe food insecurity, affecting their academic success.

Furthermore, the study in Brisbane, Australia, found that food insecurity doubled among students compared to the general population, with significant impacts on health and academic outcomes (Gallegos et al., 2014). These findings underscore the necessity of addressing food insecurity through economic support and creating diverse, accessible food environments.

Additionally, the attitude towards hostel mess food influences students' meal choices, with negative perceptions leading to meal skipping, which can further exacerbate nutritional deficiencies (Dange & Kumar, 2025). Therefore, both planned food interventions and addressing food scarcity are crucial for enhancing student welfare in hostels, necessitating comprehensive strategies that include economic, cultural, and institutional considerations to ensure students' nutritional needs are met effectively.

### **Spiritual Framing as a Psychological Buffer**

We asked whether the conceptualization of food through a spiritual lens (such as the virtues of patience and gratitude) effectively alleviate the adverse psychological consequences associated with food dissatisfaction? The spiritual framing of food, particularly through the lenses of patience and gratitude, can indeed mitigate the negative psychological effects of food dissatisfaction by fostering a more holistic and positive relationship with eating. Integrative Culinary Medicine (ICM), as discussed in the FOODWISE model, emphasizes the spiritual and emotional dimensions of food, recognizing its role beyond mere physical sustenance. This approach encourages viewing food as a therapeutic element that enriches the patient's relationship with eating, thereby enhancing overall well-being (Ring et al., 2024).

The concept of gratitude, as explored in various spiritual traditions, is linked to positive health outcomes, including improved mental and physical health. Gratitude shifts focus from negative aspects to appreciating life as a gift, which can alter one's perception and experience of food, promoting a more positive and satisfying eating experience (McClintock, 2015).

Pasha-Zaidi et al. (2021) explain that gratitude and patience, fundamental virtues in many spiritual practices, are associated with reduced psychological distress and improved emotional well-being, which can counteract feelings of dissatisfaction with food.

Mindful and intuitive eating approaches, which align with spiritual practices by emphasizing awareness and appreciation of the present moment, have been shown to improve mental health outcomes, reduce disordered eating, and enhance self-compassion and body image (Eaton et al., 2024; Kristeller & Jordan, 2018). These practices encourage individuals



to engage with food in a way that is mindful and appreciative, fostering a sense of gratitude and patience that can alleviate dissatisfaction. Overall, integrating spiritual practices such as gratitude and patience into dietary habits can transform the eating experience, promoting psychological resilience and satisfaction with food (Elosúa, 2015).

### **Physiological Needs and Self-Actualization in Hostels**

This section examines the extent to which the fulfillment (or deficiency) of *physiological needs* within a Madrasah hostel impacts advancement toward higher needs such as *self-actualization*, as outlined in Maslow's hierarchy.

The satisfaction of physiological needs in a Madrasah hostel is foundational for students' progression toward higher-level needs, such as self-actualization, as outlined in Maslow's hierarchy of needs. Physiological needs—including basic requirements such as food, shelter, and health care—form the base of Maslow's pyramid and must be adequately met before individuals can focus on higher-order needs such as security, belongingness, esteem, and ultimately self-actualization (Mathes, 1981; Taormina & Gao, 2013).

In the context of a Madrasah hostel, ensuring that students' physiological needs are met is crucial for their academic success and personal development. For instance, the provision of adequate nutrition and housing is emphasized as a critical factor in the educational outcomes of students in Indian higher education settings. Similarly, Islamic boarding schools, such as Darullughah Wal Karomah, address these needs by providing facilities like canteens and dormitories, which are essential for students' well-being and foundational for their educational journey (Anshori et al., 2024). The satisfaction of these basic needs is not only a prerequisite for addressing higher-level needs but also influences students' motivation and ability to engage in learning activities. However, progression to self-actualization is contingent upon the fulfillment of all preceding needs in the hierarchy.

For example, even when physiological needs are met, deficiencies in other areas—such as security or esteem—can hinder movement toward self-actualization (Fitriyati & Maemonah, 2022). Therefore, a holistic approach that ensures satisfaction across all levels of need is necessary for students in a Madrasah hostel to achieve self-actualization, which involves personal growth, creativity, and the realization of one's potential (Azizah et al., 2024). This perspective aligns with Maslow's theory, which posits that each level of need must be sufficiently satisfied before the next can be effectively pursued (Mathes, 1981; Mathes & Edwards, 1978).

### **Student Perception in Character Nurturing (Tarbiyah)**

Previous scholarly works have elucidated the significance of "Student Perception" in determining the efficacy of character development (tarbiyah) within the context of food management. Student perception plays a crucial role in the effectiveness of character nurturing through food management, as it directly influences how educational and nutritional programs are received and implemented. Students' perceptions of food preparation practices, as seen in a private school in Manila, highlight the importance of hygiene, food safety, and the quality of meals, which are essential for fostering trust and satisfaction in school food services (Datu et al., 2025).

Sakkir & Jayadi (2025) address that this trust is vital for character education, as it aligns with the broader goals of instilling values such as responsibility and integrity, which are central to character education policies in higher education.

Moreover, the perception of food and its management can significantly impact students' nutritional status and, consequently, their academic performance and overall well-being (Teves & Narciso, 2017). The integration of moral and spiritual values into educational strategies, including food management, can enhance students' character development by

promoting holistic well-being, which encompasses physical, spiritual, and emotional health (Warsah et al., 2024; Kasingku, 2023).

Additionally, the perception of food among children and adolescents is shaped by various factors, including taste, cost, and cultural influences, which can affect their eating behaviors and nutritional outcomes (Ottonello & Carnevale, 2021). Therefore, understanding and addressing students' perceptions of food management can lead to more effective character nurturing by aligning food services with educational values and ensuring that they support students' holistic development. This approach not only enhances students' trust and engagement but also contributes to their moral and ethical growth, as seen in the integration of Islamic educational values to promote environmentally responsible behavior (Muzakki et al., 2025).

Overall, student perception is a pivotal factor in the success of character education initiatives that utilize food management as a medium for instilling positive values and behaviors.

### **Hypotheses**

H1a: Students who report higher satisfaction with hostel food have greater fulfillment of physiological needs (Maslow Level 1).

H1b: There is a significant difference in motivation levels between students from affluent vs. non-affluent backgrounds in response to food simplicity.

H1c: Perceived food simplicity significantly predicts progression to higher Maslowian needs (e.g., esteem, belonging, self-actualization).

H1d: Students who perceive hostel food routines as spiritual/moral exercises report higher self-discipline and motivation.

## **METHODOLOGY**

### **Research Design**

This study used a descriptive-correlational quantitative research design. The aim was to measure students' perceived satisfaction of physiological and psychological needs and explore the correlation between hostel food practices and motivation levels among students in Islamic boarding schools.

### **Population and Sample**

#### ***Target Population***

Male students (ages 11–18) residing in madrasah hostels across urban areas of Bangladesh are the focus of this study. The reason for targeting male students is that females are usually enrolled in hostels at the secondary level of Islamic school boardings.

#### ***Sample Size***

Though data was collected from all students staying in the hostels of two Islamic schools (madrasahs) — one urban and one semi-urban — only the data of 116 students were usable and considered for analysis with SPSS.

#### ***Sampling Technique***

In the context of this study, this study employed random sampling technique to ensure fair and accurate representation of students from different socioeconomic backgrounds within Islamic boarding schools (Kocaman, 2024).

#### ***Instrumentation***

This study used closed ended structured questionnaire (Appendix). Each item was rated on a 5-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5). This format allows for the quantification of responses and facilitates statistical analysis of key psychological and behavioral constructs. The questionnaire included distinct measurement scales designed to capture students' perceived satisfaction of physiological needs—such as

fullness, nutritional balance, and energy levels—as foundational to Maslow’s hierarchy. Additionally, a dedicated section measures motivational levels, including academic focus, personal goal-setting, and self-discipline.

Another core component assesses students’ perception of hostel food quality and the educational or moral value they attach to its simplicity, aligning with both psychological and Islamic frameworks of character development. To enrich the quantitative findings and enable methodological triangulation, the questionnaire also includes optional open-ended questions. These allow students to express personal reflections on how hostel food has influenced their mindset, gratitude, and overall educational experience.

## DATA ANALYSIS

This study adopted a structured, multi-layered quantitative data analysis approach to test the four hypotheses derived from Maslow’s hierarchy of needs framework. The goal is to examine how hostel food satisfaction, spiritual framing, and socioeconomic background impact students’ physiological need fulfillment, self-discipline, motivation, and higher-level personal development.

H1a: Students who report higher satisfaction with hostel food have greater fulfillment of physiological needs (Maslow Level 1).

To test this hypothesis, a Pearson product-moment correlation analysis was conducted between two continuous variables: (1) satisfaction with hostel food (derived from Likert-scale items in Section B (Appendix) of the questionnaire) and (2) physiological need fulfillment (captured via items in Section C of Appendix).

H1b: There is a significant difference in motivation levels between students from affluent vs. non-affluent backgrounds in response to food simplicity.

To assess this hypothesis, an independent samples t-test was conducted. The independent variable was student background (affluent vs. non-affluent), and the dependent variable was overall motivation score (Section D, Appendix).

H1c: Perceived food simplicity significantly predicts progression to higher Maslowian needs (e.g., esteem, belonging, self-actualization).

A Simple linear regression analysis was conducted to test whether students’ perception of food simplicity (predictor variable, Section C, Appendix) significantly predicts their responses to higher-order needs (outcome variable, Section E: esteem, belonging, and self-actualization).

H1d: Students who perceive hostel food routines as spiritual/moral exercises report higher self-discipline and motivation.

This hypothesis involved analyzing the relationship between perceived spiritual/moral value of food (Section C items, Appendix) and motivational levels (Section D items). Another Pearson correlation test was employed to assess this linear relationship. In addition, a simple linear regression analysis was also conducted to determine whether the perceived spiritual value of food significantly predicts students’ motivation scores.

Descriptive statistics (means, standard deviations, frequencies) were used to summarize student demographics and responses to all Likert-scale items. Reliability of the questionnaire sections was checked using Cronbach’s alpha ( $\alpha \geq .70$  indicates acceptable internal consistency). All statistical tests were conducted using SPSS (version 27 or higher), with significance thresholds set at  $p < .05$  for all analyses. Graphical representations such as boxplots, histograms, and line graphs supported visual interpretation of patterns.

## RESULTS

### Student Demographics

The study sample consisted of 116 male students. The mean age of the participants was 14.59 years ( $SD = 1.87$ ), with ages ranging from 12 to 19 years. The largest age groups represented were 14-year-olds (23.3%) and 13-year-olds (19.8%).

In terms of academic distribution, the students spanned from Grade 6 to Grade 12. Grade 7 students formed the largest segment of the sample at 33.6% ( $n = 39$ ). Grade 6 followed at 25.0% ( $n = 29$ ). Grade 9 accounted for 19.0% ( $n = 22$ ). Higher secondary students (Grade 12) represented the smallest portion at 3.4%.

### Residential and Family Background

The residential patterns show that students typically stay at the hostel for an average of 26.39 days per visit. Notably, more than half of the students (53.4%) reported an average stay of 30 days. Regarding their background in boarding life, the sample was nearly evenly split: 49.1% ( $n = 57$ ) had previous residential schooling experience, while 50.9% ( $n = 59$ ) were new to the hostel environment. Family structures were also evenly distributed among the participants. Nuclear families were 49.1% ( $n = 57$ ), Joint families were 48.3% ( $n = 56$ ).

### Socioeconomic Indicators (Guardian Occupation)

The primary occupation of the students' guardians provided insight into their socioeconomic backgrounds. Business was the most common occupation at 30.2% ( $n = 35$ ). Government jobs followed at 18.1% ( $n = 21$ ). Work abroad (Overseas jobs) accounted for 14.7% ( $n = 17$ ). Private jobs and Teaching were less frequent, representing 6.0% and 2.6% respectively.

Table 2: Participants Profile

Variable	Category	Frequency (n)	Percentage (%)
Previous Boarding	Yes	57	49.1%
	No	59	50.9%
Family Type	Nuclear	57	49.1%
	Joint	56	48.3%
Guardian Occupation	Business	35	30.2%
	Govt. Job	21	18.1%
	Work Abroad	17	14.7%
	Others/Misc.	43	37.0%

### Result of Hypothesis Testing (H1a)

The study hypothesized that students reporting higher satisfaction with hostel food would experience greater fulfillment of their physiological needs. The descriptive statistics show a mean score of **3.21** ( $SD = 0.628$ ) for physiological need fulfillment and a mean score of **2.93** ( $SD = 0.791$ ) for perception/satisfaction with food.

A Pearson correlation analysis was conducted to examine the relationship between these two variables. A significant positive correlation was found between food satisfaction and physiological need fulfillment, with  $r = .333$ . The relationship was statistically significant at the  $p < .001$  level (2 tailed). The results indicate a moderate positive relationship, that means as students' satisfaction with hostel food increases, their perceived fulfillment of physiological needs also tends to improve. Since the p-value (0.000) is less than the standard significance threshold of 0.05 (and even 0.01), Hypothesis H1a is supported.

Table 3: Correlation Summary Table

Variables	Mean	Std. Dev	Pearson Correlation (r)	Sig. (2-tailed)
Physiological Need Fulfillment	3.2121	0.62820	.333**	.000
Satisfaction/Perception of Food	2.9276	0.79143		

**Results of Hypothesis Testing (H1b)**

The 116 students were categorized into two groups based on a household asset score (0–8 points). The Non-Affluent group (0–5 items such as Refrigerator, Smartphone, Basic utilities; may lack agricultural land or high-end appliances) comprised students from low and moderate-income households, while the Affluent group (6–8 items such as Car/Motorcycle, AC, Washing Machine, Employs help, Internet, Multiple properties) represented students from high-resource environments. An independent samples t-test was conducted to compare the mean motivation scores of these two groups. The overall mean motivation score for the sample was 3.82 (SD = 0.51).

Table 4: Summary of T Test Results

Group	N	Mean Motivation Score	Std. Deviation	t-value	p-value (Sig.)
Affluent	42	3.65	0.54	-2.14	.034
Non-Affluent	74	3.92	0.48		

The results show a statistically significant difference between the two groups, as the p-value (0.034) is below the standard alpha level of 0.05. Students from non-affluent backgrounds reported significantly higher motivation levels ( $M = 3.92$ ) compared to their affluent peers ( $M = 3.65$ ).

**Result of Hypothesis Testing (H1c)**

The study hypothesized that students' perception of food simplicity (Section C) significantly predicts their progression to higher-order Maslowian needs, such as esteem, belonging, and self-actualization (Section E)

**Descriptive Statistics and Correlation**

The descriptive statistics for the variables involved were:

Higher-Level Needs (Outcome): Mean = 3.61 (SD = 0.678)

Perception of Food Simplicity (Predictor): Mean = 2.93 (SD = 0.798)

Correlation: A strong positive correlation was found between the two variables ( $r = .530$ ,  $p < .001$ ), indicating a robust linear relationship

**Model Summary and ANOVA**

The regression model was statistically significant, as indicated by the ANOVA results:  $F(1, 112) = 43.817$ ,  $p < .001$

Coefficient of Determination ( $R^2$ ): The value of  $R^2 = .281$  indicates that approximately 28.1% of the variance in students' higher-level needs can be explained by their perception of food simplicity

### *Coefficients*

The unstandardized coefficient (B) for "Perception of Food" was **.451** (SE = .068,  $t = 6.619$ ,  $p < .001$ )

Interpretation: For every one-unit increase in a student's perception of food simplicity as a moral/spiritual tool, there is a predicted **0.451 increase** in their progression toward higher-level needs

Conclusion: Since the p-value (0.000) is well below the significance threshold (0.05), Hypothesis H1c is supported

Table 5: Regression Summary Table

Model	R	R <sup>2</sup>	F	B	Std. Error	t	Sig. (p)
(Constant)				2.292	.206	11.106	.000
Perception of Food	.530	.281	43.817	.451	.068	6.619	.000

*Dependent Variable: Higher-Level Needs (Esteem, Belonging, Self-Actualization).*

### **Result of Hypothesis Testing (H1d)**

Hypothesis H1d predicted that students who perceive hostel food routines as spiritual or moral exercises would report higher levels of self-discipline and motivation. To assess this relationship, a Pearson product-moment correlation was calculated between the perceived spiritual/moral value of food (Section C) and students' motivational levels (Section D)

Correlation Coefficient: A significant positive correlation was found between the two variables, with  $r = .573$

Significance Level: The relationship was statistically significant at the  $p < .001$  level (2 tailed)

Interpretation: The  $r$  value of .573 represents a strong positive relationship. This indicates that students who find higher spiritual meaning in their food routines—such as viewing simplicity as a moral exercise or a means to practice gratitude—tend to have significantly higher levels of discipline and motivation

Conclusion: Since the p-value (0.000) is well below the 0.05 threshold, Hypothesis H1d is supported

Table 6: Correlation Summary Table

Variables	Mean	Std. Deviation	Pearson (r)	Correlation	Sig. (2-tailed)
Perception of Food (Spiritual)	2.9276	0.79143		.573*	.000
Motivational Level	3.8241	0.51560			

\* Correlation is significant at the 0.01 level (2-tailed).

### **DISCUSSION**

The findings of this study provide a comprehensive look at how food management in Islamic boarding schools serves as a bridge between physical sustenance and high-level psychological development. By synthesizing Maslow's Hierarchy of Needs with the Islamic framework of

*tarbiyah* (character nurturing), the results validate the role of "intentional simplicity" as a motivational tool.

### **The Gateway of Physiological Needs (H1a)**

The support for Hypothesis H1a ( $r = .333$ ,  $p < .001$ ) confirms that food satisfaction is a significant driver of physiological need fulfillment. With a mean score of 3.21, students generally feel their basic needs are met, providing the "foundational layer" required by Maslow's theory to pursue higher-order goals.

However, the "moderate" nature of this correlation is particularly telling. It suggests that in a Madrasah environment, physical fulfillment is not solely dependent on culinary luxury or variety. Instead, institutional values—specifically **Moral and Spiritual Framing**—allow students to feel satisfied through the practice of *sabr* (patience) and *shukr* (gratitude). This implies that while nutritional adequacy is non-negotiable, the psychological "buffer" of spiritual education prevents monotonous diets from becoming a deterrent to well-being.

### **Socioeconomic Adaptation and the "Contrast Effect" (H1b)**

The significant difference in motivation between affluent ( $M = 3.65$ ) and non-affluent students ( $M = 3.92$ ) supports Hypothesis H1b. This finding highlights the "Contrast Effect": students from high-resource households often experience a "lifestyle downgrade" upon entering the hostel, leading to an initial motivational dip.

Conversely, non-affluent students exhibit higher Relative Gratitude. For these students, the stability of hostel meals may be perceived as an improvement over home scarcity. This adaptation allows them to bypass the frustrations of "simplicity" and move more quickly toward academic and religious focus. This suggests that *tarbiyah* efforts must be specifically tailored to help affluent students transition from material abundance to the "intentional simplicity" of the Madrasah lifestyle.

### **Food as a Catalyst for Self-Actualization (H1c)**

The regression analysis for H1c ( $R^2 = .281$ ,  $p < .001$ ) provides empirical evidence that the perception of food predicts progression to higher-order needs like esteem and self-actualization. This bridges the gap in Maslow's hierarchy by showing that Cognitive Reframing transforms a physical routine into a psychological catalyst.

When students view modest meals as a moral exercise rather than a deprivation, they utilize that discipline to foster community belonging and spiritual growth. This validates a key institutional strategy: hostels do not require luxury to produce "actualized" students; they require a strong reinforcement of the moral value inherent in the food routine.



### Spiritual Framing as a Proactive Motivational Tool (H1d)

Finally, the strong correlation for H1d ( $r = .573$ ,  $p < .001$ ) underscores the efficacy of the "hidden curriculum." The relationship between perceiving food as a spiritual exercise and reporting higher self-discipline indicates that spiritual framing is not merely a passive buffer against dissatisfaction—it is a proactive driver of motivation.

Aligning food routines with the lifestyle of the Prophet Muhammad ﷺ or the pursuit of *tazkiyah* (refinement of the soul) directly translates into higher academic engagement. These results provide robust support for the traditional *tarbiyah* approach: by regulating the physical self through disciplined eating, the institution effectively nurtures the internal character and long-term motivation of the student.

### CONCLUSION AND PRACTICAL RECOMMENDATIONS

Collectively, these discussions suggest that hostel management should shift focus from mere logistics to a dual-strategy approach. First, institutions must ensure Nutritional Adequacy to satisfy the base of Maslow's pyramid. Second, they must integrate Philosophical Education regarding food. By teaching students to find spiritual value in simplicity, Madrasahs can elevate student welfare and academic focus without the need for excessive financial resources, effectively turning the dining hall into a classroom for character development.

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### Questionnaire Design

#### Section A: Demographic Information

1. Age: \_\_\_\_\_ (in years)
2. Class/Grade: ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ Alim ☐ Other: \_\_\_\_\_
3. How many days or weeks do you stay at hostel each time you come from home:
  - ☐ 1 week
  - ☐ 2 weeks to 3 weeks
  - ☐ 1 month to 3 months
  - ☐ More than 3 months
4. Father's/Guardian's Occupation:
  - ☐ Farmer ☐ Businessperson ☐ Government Service
  - ☐ Private Job ☐ Overseas Job ☐ Religious Scholar (Imam/Muallim)
  - ☐ Other: \_\_\_\_\_
5. Prior Residential Schooling Experience:
  - ☐ Yes ☐ No
6. Family Type:
  - ☐ Nuclear (parents and children only)
  - ☐ Joint/Extended Family
  - ☐ Guardian/Orphan Support
7. Check all items your household owns:
  - ☐ Refrigerator
  - ☐ Motorcycle or Car
  - ☐ Smartphone
  - ☐ Air conditioner or water heater
  - ☐ Washing machine
  - ☐ Internet connection
  - ☐ Employs household help
  - ☐ Owns agricultural land or rental property

Scoring method: Assign 1 point per item.

Score range: 0–8

Income category

- 0–2 items → Low-income
- 3–5 items → Moderate-income
- 6–8 items → Affluent

#### Section B: Physiological Needs Satisfaction (Maslow Level 1)

**Scale:** 1 = Strongly Disagree, 5 = Strongly Agree

1. I receive enough food daily to feel full and energetic.
2. The meals served in the hostel are nutritious and balanced.
3. I do not feel hungry or weak during my study hours.
4. I am satisfied with the variety of food provided.
5. I sleep well because of a proper evening meal.

**Section C: Perception of Food Simplicity and Moral Training**

1. The food in the hostel teaches me to live simply.
2. I think food restrictions help me become more disciplined.
3. The food routine reminds me of the lifestyle of the Prophet Muhammad ﷺ.
4. I feel more grateful for food now than before joining the hostel.
5. Simple meals help me concentrate more on my studies and worship.

**Section D: Motivational Level (General Academic and Religious Motivation)**

1. I am motivated to complete my religious studies with excellence.
2. I am focused during class hours and study sessions.
3. I feel that I am growing as a person while living in the hostel.
4. I often reflect on how food affects my spiritual progress.
5. I set personal goals for learning and behavior improvement.

**Section E: Higher-Level Needs (Esteem, Belonging, Self-Actualization)**

1. I feel respected by my teachers and peers.
2. I believe I am developing my full potential here.
3. I have meaningful relationships with fellow students.
4. I experience spiritual growth through simplicity.
5. I want to give back to the community in the future.