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EFFECT OF HOUSEHOLD'S FOOD SECURITY ON EDUCATIONAL OUTCOMES OF THE STUDENTS IN PUBLIC PRIMARY SCHOOLS IN TEHSIL SHORKOT

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ABSTRACT

Millions of people in both developed and developing nations are affected by the serious problem of household food security. Household food security is a situation where members of a household have access to enough food to meet their basic nutritional needs. The main objective of the current study is to explore the effect of household food security on the educational outcomes of the students in public primary schools in tehsil Shorkot. The study was quantitative. From the total number of primary schools in tehsil Shorkot, twenty-five primary schools were selected conveniently. According to the list obtained from DEO, there are a total 119 teachers who are currently working in selected schools. A sample size of 91 respondents was selected with a confidence interval of 5 and a confidence level of 95%. For data collection a well-structured and well-prepared questionnaire was used for data collection as a research instrument. Data were analyzed by using Statistical Package for Social Sciences (SPSS) to calculate the frequency, mean value, standard deviation, and weighted score for variables for further results and study recommendations. It was concluded that less than half (40.7%) had master-level qualifications, while less than one-fifth (16.5%) had the bachelor-level qualification. More than one-third (34.1%) of the respondents had more than 15 years of experience at the school level, while about one-fifth (25.3%) of the respondents had 6-10 years of teaching experience. Lack of knowledge about food security was at 1st in rank order according to the weighted score of 358 and mean value of 3.93, followed by the low-income level at 2nd rank order with a weighted score of 353 and mean value of 3.87. The chi-square value of 13.20 indicates a moderate association between the teaching experience of teachers and their perception of factors affecting food security. The p-value of 0.047 is less than 0.05. This suggests that teaching experience might play a role in teachers' perceptions of food security factors. They should encourage the creation of jobs and opportunities for income generation while supporting entrepreneurship. Increasing small-scale farmers', rural entrepreneurs, and marginalized communities' access to credit and financial services and creating sustainable livelihoods encourage economic diversification and value chain development in the agricultural and other sectors.

Keywords: Household; Food security; Educational outcomes; Students; Primary schools.
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INTRODUCTION

A household is said to be experiencing household food security if it is unable to provide enough food for all of its members due to a lack of resources or other socioeconomic issues. This may lead to reduced food intake or disturbed eating habits, which may cause malnutrition and a number of other health issues (Bolarinwa et al., 2019). Food security occurs when people do not have access to enough food because of a variety of economic, social, or environmental factors. Hunger, malnutrition, and a variety of health issues, such as stunted growth, weakened immune systems, and chronic diseases may result from this (Coutre,

2014). Food security can have a significant effect on the physical and mental health of individuals and families. It can cause malnutrition, which weakens the immune system, stunts children's growth, and raises their risk of developing chronic diseases. Furthermore, it may result in depression, anxiety, and psychological stress (Coughenour et al., 2021). Particularly in low-income populations, studies have shown a link between food security and a higher risk of being overweight or obese. As a result of reduced food intake brought on by food security, people may eat more high-calorie, low-nutrient foods to make them feel full (Shimizu et al., 2014). Stress, which can result in overeating and weight gain, is another possible side effect of food security. People who have access to a reliable and wholesome food supply are more likely to follow a healthy, balanced diet, which can support the maintenance of a healthy BMI. A healthy diet helps children grow and develop normally, which can help them avoid becoming overweight or obese later in life (Fraught et al., 2015).

For students, having a food-insecure home can lead to ongoing stress and anxiety. Emotional distress can be exacerbated by the uncertainty of eating insufficient amounts or by relying on erratic eating schedules. Stress and anxiety can have a negative effect on a student's cognitive functioning, attention, and memory, making it challenging for them to concentrate and do well in school. The emotional health of students can suffer from food insecurity. Feelings of shame, embarrassment, and low self-esteem can result from the stress and anxiety brought on by insufficient access to food. These emotional difficulties can keep students from studying and lower their drive to do well in school (Bahar et al., 2020). Families who struggle to feed themselves frequently have limited resources, which can prevent them from having access to books, tutoring, or extracurricular activities. Students may be at a disadvantage in comparison to their peers due to this lack of resources, which may have an impact on their academic performance and overall educational opportunities. By ensuring that students have access to nourishing food and a supportive learning environment, initiatives to address household food insecurity, such as school meal programmers' food assistance programmers' and community initiatives, can help ease these difficulties and support students' academic success (Coleman-Jensen et al., 2014).

Pakistan places a high priority on household food security. First off, due to poverty, unemployment, and a lack of access to healthcare and education, a sizable portion of the population in Pakistan, a developing nation, is at risk for food security. Pakistan is classified as having a high level of food security as it ranks 92 out of 107 nations in the Global Hunger Index. Students who lack access to food may find it difficult to focus, finish their homework, or do well on tests. Malnutrition and hunger both have an impact on cognitive growth, which in turn has an impact on academic performance (Pérez-García et al., 2016). Food security in the home can have a negative effect on students' academic performance, which can have long-term repercussions on their future prospects and employment opportunities. In order to advance educational equity and guarantee that all students have the chance to succeed, it is crucial to address food security. Overall, having access to enough food is crucial for maintaining a healthy BMI and avoiding overweight and obesity (Rundle et al., 2008; Wu et al., 2020). In order to support healthy eating habits and prevent health issues related to obesity, food security should be addressed through policies and programs that increase access to wholesome foods, support sustainable agriculture, and decrease poverty and inequality. The current study will help in exploring the different causes of household food security and its impact on the student's educational outcomes at the school level, which will help the policymakers and the other stakeholders to understand the low health issues among student's which alternative affects the student's learning.

Objectives of the Study

1. To identify the socio-economic characteristics of the respondents
2. To investigate the factors affecting the food security among students at the primary level
3. To determine the level of household food security at the primary level
4. To identify the impact of household food security on BMI of the students at the primary level

5. To identify the effect of BMI on the learning ability of the students
6. To suggest some recommendations on the basis of research

METHODOLOGY

The study entitled “Effect of household food security on educational outcomes of the students in public primary schools in tehsil shorkot. Shorkot serves as a tehsil (administrative subdivision) in Pakistan's Punjab province's Jhang District. Shorkot has a lengthy, rich history. The town bears Sher Khan's name because it is thought that he founded it in the 16th century. The Ghaznavids, Ghurids, Delhi Sultanate, Mughals, and Sikhs were just a few of the dynasties that ruled the area. Shorkot was an area of the Jhang District during the British colonial era. From the total number of primary schools in tehsil Shorkot, twenty-five primary schools were selected conveniently. According to the list obtained from DEO, there were a total 119 teachers who were currently working in selected schools. A sample size of 91 respondents was selected through www.surveysystem.com with a confidence interval of 5 and a confidence level of 95% along were selected randomly for data collection. A well-structured questionnaire was prepared for the data collection and it was comprised of both open as well as closed-ended questions. The results of the current study were drawn after the data were coded and a data sheet was created in SPSS. In computer software, various formulas were used to analyze the data. Statistical Package for Social Sciences (SPSS) was used to analyze the data. A chi-square analysis, which explores the association between socio-economic characteristics of teachers and their perceptions about factors affecting food security among primary-level students. The outcomes of the data were interpreted by calculating the Mean, Standard Deviation, and Weighted Score. On the basis of the study's findings, a conclusion and recommendation were drawn.

RESULTS AND DISCUSSION

Results and discussion are consisted of two sections. The first section is composed of an explanation of demographic attributes and the personal factors affecting food security, and measures of the association is described in the second section. Socio-economic attributes of the respondents have an important role in food security (Parvin et al., 2020).

Table 1 describes the respondent’s distribution according to their age group. According to the study results, more than one-third (35.2%) of the respondents fell in the age category 31-35 years age group, while less than one-third (28.6%) of the respondents were above 40 years of age. It was also noticed that the young group was more motivated towards acquiring higher education and were willing towards quality and effective education. The study results were contradicted by Hayat (2020), who concluded that the majority (46.3%) of the respondent’s age were 26 to 32 years category. One-fourth (25.2%) of the respondents were 33-40 years category. The term "school location" describes the environment or location where a school is physically located (Murphy, 2019). The data described the responses of the respondents according to their residential status. According to the study results, more than half (52.7%) of the respondents belonged to the urban area, while less than one-fifth (20.9%) of the respondents belonged to the rural area according to their school location. The study results were similar to Shaheen (2018), who concluded that the majority of the schools in the study area were located in the urban area. The term "academic qualification" describes a person's level of education or educational credentials (Tukimin et al., 2019). Career opportunities, professional advancement, and further education are just a few areas of life where academic credentials are very important. Many professions and career paths require academic credentials (Mirian & Zulnaidi, 2020). It also describes the responses of the respondents according to their academic qualifications. According to the study results, less than half (40.7%) had master-level qualifications, while less than one-fifth (16.5%) had bachelor-level qualifications, and about one-tenth (9.9%) of the respondents had intermediate-level qualifications according to the academic qualification. Shaheen (2018) also calculates similar results in their research study, which described that more than one-third (35.4%) of the respondents were B.A, B.Sc. qualified, and less than one-tenth (9.8%) of the respondents were M.Phil.

qualified and more than half (54.9%) of the respondents were M.Sc., MA qualified. In the context of a particular profession or industry, professional qualifications refer to certifications or credentials that are specialized. These certifications, which are frequently given out by regulatory bodies, professional associations, or other organizations, attest to a person's level of expertise in their field of practice (Ishola et al., 2018). The establishment of credibility, the display of expertise, and the maintenance of ethical standards within a profession all depend greatly on professional qualifications (Sadriddinov, 2021).

Table 1. Distribution of the respondents according to their demographic attributes.

Age	Frequency	Percentage
25-30	15	16.5
31-35	32	35.2
36-40	18	19.8
Above 40	26	28.6
School location		
Urban	48	52.7
Rural	19	20.9
Peri-Urban	24	26.4
Academic Qualification		
Matriculation	11	12.1
Intermediate	9	9.9
Bachelor	15	16.5
Master	37	40.7
M.Phil.	18	19.7
Ph.D.	1	1.09
Total	91	100
Professional Qualification		
B.Ed	53	58.2
M.Ed	22	24.2
Other	16	17.6
Total	91	100
Teaching Experiences (years)		
Up to 5 years	19	20.9
6-10	23	25.3
11-15	18	19.8
Above 15	31	34.1
Total	91	100

According to the study results, more than half (58.2%) of the respondents had a B.Ed. qualification, while about one-fourth (24.2%) of the respondents had M.Ed. as a professional qualification. The study results were also similar to Hayat (2020), who concluded that in district Faisalabad, the Majority (80.5%) of the respondents were B.Ed. qualified, and one-fifth (19.5%) of the respondents were M.Ed qualified. For educators, having teaching experience is a valuable asset because it advances their professional development, pedagogical expertise, and comprehension of student needs (Nemine and Akintunde, 2019). The study depicted that more than one-third (34.1%) of the respondents had above 15 years of experience at the school level, while about one-fifth (25.3%) of the respondents had 6-10 years of teaching experience at the school level. The study results of the current study were less similar to Hayat (2020), who described that more than half (52.8%) of the respondents have more than 15 years of teaching experience and one-third (33.3%) of the respondents have up to 3 years of teaching experience.

Table 2. Weighted score, Mean value, Standard deviation and Rank order of the respondents according to the personal factors affecting the food security.

Personal factors	Mean	Std. Deviation	Weighted Score	Rank Order
Lack of knowledge about food security	3.93	1.162	358	1
Low-income level	3.87	1.103	353	2
Lack of knowledge about nutrition	3.85	1.387	351	3
Poor meal planning strategies	3.85	1.091	351	4
Unhealthy food options	3.84	1.021	350	5
Availability and affordability of nutritious food options	3.82	1.296	348	6
Poor housing and living conditions	3.75	1.186	342	7
Low-income households	3.60	1.272	328	8

Scale: 1= Strongly disagree, 2= disagree, 3= Undecided, 4= Agree, 5= Strongly Agree.

Table 2 describes the distribution of the respondents according to personal factors that affect food security at the household level. According to the study results, lack of knowledge about food security was at 1st in rank order according to a weighted score of 358 and the mean value of 3.93, followed by the low-income level at 2nd rank order with a weighted score of 353 and the mean value of 3.87 and laying between agree to a strongly agree according to the level of occurrence at five-point Likert scale but tending towards agree. Lack of knowledge about nutrition (weighted score=351, mean value=3.85), poor meal planning strategies (weighted score=351, mean value=3.85) and unhealthy food options (weighted score=350, mean value=3.84) at 3rd, 4th, and 5th in rank order and lying between undecided to agree but tending towards agree on five-point Likert scale. The study results were similar to McIntyre et al. (2016), who discussed that household food security can arise from a variety of complex and interconnected factors. Lack of income or resources is one of the main drivers of household food security. Low-income households may struggle to afford nutritious food or may have to choose between food and other basic needs such as housing, healthcare, and education. Losing a job or being unable to find work can lead to a decrease in income, making it more difficult to purchase enough food to meet the household's nutritional needs. Similar results were also presented by Ahamad et al. (2013) and Blanchet et al. (2020).

Table 3. Association between socioeconomics characteristics of the teachers and their perception of the factors affecting food security among students at the primary level.

Sr. No.	Socio-economic characteristics	Chi-square value	D.F.	P-value
1	Age	12.40	6	.049*
2	Professional Education	2.88	4	.578NS
3	Academic qualification	18.51	10	.048*
4	Teaching experience	13.20	6	.047*

Table 3 provides a summary of the results of a chi-square analysis, which explores the association between socio-economic characteristics of teachers and their perceptions about factors affecting food security among primary-level students.

Age (Chi-square value: 12.40, p-value: 0.049*): The chi-square value of 12.40 indicates a moderate association between age groups of teachers and their perception of factors affecting food security. The p-value of 0.049 is less than 0.05, which is the common significance level. The "*" next to the p-value signifies that the association is statistically significant. Therefore, there is evidence to suggest that age might have an impact on teachers' perceptions about factors affecting food security among primary-level students.

Professional Education (Chi-square value: 2.88, p-value: 0.578NS): The chi-square value of 2.88 indicates a weak association between the level of professional education of teachers and their perception of food

security factors. The p-value of 0.578 is much higher than 0.05, indicating that this association is not statistically significant.

Academic Qualification (Chi-square value: 18.51, p-value: 0.048*): The chi-square value of 18.51 suggests a relatively strong association between the academic qualifications of teachers and their perception of factors affecting food security. The p-value of 0.048 is less than 0.05, and the "*" next to it indicates that the association is statistically significant. This suggests that there is evidence to suggest that academic qualification might influence teachers' perceptions about food security factors.

Teaching Experience (Chi-square value: 13.20, p-value: 0.047*): The chi-square value of 13.20 indicates a moderate association between the teaching experience of teachers and their perception of factors affecting food security. The p-value of 0.047 is less than 0.05, and the "*" indicates statistical significance. This suggests that teaching experience might play a role in teachers' perceptions of food security factors.

CONCLUSIONS AND RECOMMENDATIONS

It was concluded that different personal factors like lack of knowledge about food security, low-income level, poor housing and living conditions, and availability and affordability of nutritious food. In order to improve dietary habits, food usage, and hygiene routines at the household level, support nutrition education and behavior change campaigns. To address underlying health issues that may have an impact on food security and nutrition, it is important to improve access to healthcare services, particularly for women and children. A comprehensive strategy combining agriculture, income generation, social protection, climate resilience, and nutrition interventions is needed to address household food security. It is crucial to customize solutions to the unique context and difficulties faced by each community or region while taking into account the available resources, human resources, and cultural aspects.

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Conflict of Interest

The presented literature in this manuscript is not against the norms and values of society and would not create any type of conflict.

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