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Identification and Investigation of Malnutrition among School-Age Children in District Tharparkar

Waheed Akber Khaskheli
Department of Social Work, University of Sindh, Jamshoro

Namra Shahid

&

Irfan Ghafar
Department of Social Work, University of Karachi

ABSTRACT

Malnutrition is a big problem for public health in the Tharparkar region of Sindh, Pakistan, especially for kids who are in school. About 65 percent of kids under five in this area are said to be suffering from chronic malnutrition. Malnutrition is a complex issue attributable to various factors, including poverty, limited access to healthcare, inadequate sanitation and hygiene, scarcity of clean drinking water, insufficient food and nutrition, and inadequate education. The objective of this study is to determine and analyse the prevalence of malnutrition among children enrolled in educational institutions in the *Tharparkar* District of Pakistan. The study strategy for this project involved the selection of a cross-sectional survey as the methodological approach. This article centres on the research undertaken in District Tharparkar, situated in the southern region of Sindh Province, Pakistan. The population of this study comprised children aged 5 to 14 enrolled in schools within District Tharparkar. A multi-stage random sampling method was used to choose a sample size of 300 children, both boys and girls, aged 5 to 14 years. This study employed a questionnaire comprising predefined enquiries and anthropometric measurements, including height and weight, for data collection. A preliminary study was executed to assess both questionnaire and anthropometric measurements. This was done to make sure that the tools were accurate and reliable. The SPSS software was used to look at the data that was collected. The study employed descriptive statistics and the chi-square test to ascertain the existence of a correlation between malnutrition and various factors. The data show that a large number of school-aged children in the district are stunted (51.2%), underweight (47.4%), or wasted (34.4%). The results of the binary logistic regression analysis show a strong link between malnutrition and things like low-income families, big families, and not knowing much about nutrition. The study results indicate that childhood malnutrition is a significant concern among school-aged children in the region. It is essential to swiftly formulate and execute policies and programs that address the underlying causes of childhood malnutrition. Also, it is important to teach

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parents about nutrition so that their kids get enough of the nutrients they need.

Keywords: Assessing Malnutrition, Tharparkar, Children's Health, Education.

INTRODUCTION

Malnutrition is a broad word that encompasses a deficiency in any or all of the essential dietary elements required for human well-being. Malnutrition refers to a state in which there is insufficient or low-quality food accessible (Shree & Narayana Murthy, 2021a). Malnutrition occurs when the body's nutritional requirements are not satisfied owing to an imbalance in these requirements, resulting from insufficient food supply. Hunger, sometimes referred to as food insecurity, is a metric that may be used to gauge the financial well-being and income levels of individuals (Zerga et al., 2022). The primary factors contributing to malnutrition include substandard food quality and compromised health, often stemming from limited financial resources, inadequate food availability, expanding family sizes, and behaviours that hinder individuals from adequately nourishing themselves (Shree & Narayana Murthy, 2021b). Another contributing factor is the growing size of households. Certain demographic groups are more susceptible than others to the hazards linked to malnutrition (Health & Goals, 2017). Various elements, such as the environment, influence both the physical and social development of children. Allowing the continuation of inadequate feeding habits and a lack of access to hygienic facilities might impede the physical and cognitive development of children. The amount of education that women possess is a significant aspect that is relevant to this circumstance and has an impact on it (Gillani et al., 2022). Higher levels of maternal education almost always contribute to the success of efforts to decrease malnutrition rates (UNICEF, 2017).

Malnutrition is a widespread issue that affects people of all ages in every country. However, it is particularly severe in infants and young children worldwide. Malnutrition accounts for more than 50% of all deaths in children under the age of five worldwide, resulting in an extra 2.6 million fatalities annually (UNICEF; WHO; World Bank, 2018). According to the World Food Programme (2017), over 3.1 million children globally succumb to malnutrition annually. The source cited is WFP (2017).

Globally, around sixty million children suffer from malnutrition, and an additional thirteen million children are affected by severe acute malnutrition. The Joint Estimate Report states that in 2017, there were 150 million children under the age of five who had stunted growth (2018). In 2017, it was forecasted that 50.5% of children under the age of five will have stunted growth (being excessively thin

for their age). Contrary to previous beliefs, current investigations have shown that the location with the highest number of undernourished children is really located in Asia, not Africa. In 2017, Africa was home to a significant proportion (3/5) of the world's stunted children, while South Asia housed another substantial portion (1/5). According to a report by UNICEF/WHO/World Bank (2016), Asia is home to almost two-thirds of the world's malnourished children, with South Asia accounting for over half of the 26.9 million children and Africa accounting for over one-quarter.

South Asia's youngsters have the highest prevalence of malnutrition globally, further tarnishing the region's already poor image. In South Asia, over 46% of children within this age group suffer from malnutrition, which is a greater proportion compared to the 26% of children in the same age group that experience malnutrition in Sub-Saharan Africa. The prevalence of malnourished children is twice as high in Bangladesh and India compared to countries such as Kenya, Tanzania, and Uganda in Africa. While the average rate of underweight children in Sub-Saharan Africa is at 42%, Nepal, Bangladesh, and India have a much higher proportion, with over half of all children being underweight. South Asian countries, including India, Bangladesh, Pakistan, Afghanistan, and Nepal, are among the 36 nations worldwide that together bear 90% of the global malnutrition burden. Nigeria and Tanzania, situated in Africa, had a higher prevalence of neonates with low birth weight compared to other African nations. In contrast, countries like Malawi and Ethiopia in Africa are usually less developed than their counterparts in South Asia (Asia et al., 2017). The significantly elevated prevalence of underweight infants is a primary factor contributing to undernourishment in South Asia. 25% of babies in Pakistan have low birth weight, as reported by Mehrotra in 2006.

According to a study by UNICEF in 2017, more than 50% of adolescents in Pakistan suffer from chronic undernourishment, also known as stunting, while 17.5% are severely malnourished, also known as wasting. The significance of nutrition in human development is often underestimated, and this holds true for Pakistan as well. Throughout documented history, Pakistan has experienced several natural calamities, which have established its global image as a nation prone to disasters. Since 2010, floods have displaced and put at risk a vast number of individuals. The damages incurred from these floods is exceptional and unacceptable. This poses a danger to both individuals' livelihoods and their capacity to get sustenance. The severe state of undernourishment, coupled with inadequate access to uncontaminated water, appropriate sanitary facilities, and medical assistance, profoundly impacts the well-being and capacity to govern of the most impoverished individuals worldwide (UNICEF, 2017). The prevalence of malnutrition has significantly risen in all age groups in Pakistan in recent years. However, the government has paid little attention to this issue, resulting in the

current dire situation and high rates of malnutrition, particularly among school-aged children (Hirani, 2012).

According to the Asia Hunger Report (2017), Pakistan has a significant prevalence of newborn and early child mortality, ranking it as the second most populous nation in South Asia. 40% of children under the age of five suffer from malnutrition, and Pakistan has one of the worst child mortality rates, with 81 deaths per 1000 parents in 2016. Approximately 50% of these children also have a delay in both mental and physical development, often referred to as stunting (Asia et al., 2017). According to the 2011 National Nutrition Survey, 33% of youngsters were underweight, 44% were short (stunted), and 15% were undersized (wasted). This presents a significant issue. (Pakistan's government and UNICEF Pakistan, 2011). According to the PDHS (2018), a child's weight in relation to their age serves as a measure of their overall nutrition and health. The report also highlights that underweight children often experience delayed growth, waste, or both. As of August 2018, the prevalence of underweight children in Pakistan is at 23%, with 8% classified as seriously underweight, according to the National Institute of Population Studies (NIPS).

In nations such as India, Bangladesh, and Pakistan, where there is a pervasive presence of poverty, malnutrition stands as the leading cause of mortality among children below the age of five. According to the World Health Organisation, malnutrition is responsible for 60 percent of mortality in children under the age of 5 in undeveloped nations (UNICEF, WHO, & World Bank, 2014). Silvia, a UNICEF official, expressed concern and said that one-third of infants in Pakistan are born with low birth weight. Statistical data indicates that the malnutrition situation in Pakistan is comparable to that in Africa (Asia et al., 2017). More than 70% of the population in Pakistan resides in rural regions, where they allocate around 55% of their income towards food expenses. This adds to the country's position at number 65 in the latest IFPRI global hunger report (Institute, 2016). Research conducted by the World Resources Institute (WRI) has shown that food price inflation in Pakistan has surged to 15.49%. This significant increase in prices has disproportionately affected the impoverished population of the nation (FAO, 2018).

A significant number of children in Sindh, particularly in regions affected by floods, are experiencing food insecurity. The situation is deteriorating. According to the Sindh BOS report in 2014, a significant number of children in the surrounding area have been experiencing malnutrition since 2010. According to a study conducted by UNICEF in 2015, it was shown that in Sindh, Pakistan, 72% of families experience food insecurity. Additionally, 49.8% of children under the age of 5 in the region suffer from malnutrition, and 17.5% of these malnourished

children have wasting, which is characterised by low weight for their height (UNICEF, 2015a).

The PDHS 2012-13 study indicates that 57% of children under five in Sindh are suffering stunted development, indicating that they are smaller than anticipated for their age. Moreover, 35% of these youngsters have severe stunting. Short stature is more prevalent among children in rural areas compared to those in urban environments. According to the National Institute of Population Studies (NIPS) in Islamabad, Pakistan, and ICF International in Calverton, Maryland, USA, 42% of children under five in Sindh, Pakistan, experience malnutrition. Additionally, 17% of all children in Sindh are severely malnourished, according to the Multiple Cluster Illness Surveillance System (MCIS) in 2014. Approximately 48% of children below the age of 5 exhibit a condition of being underweight or stunted in growth, and a quarter of them suffer from severe underweight. Statistics indicate that a mere 1% of children and teens are excessively overweight in relation to their height, whereas 15% are classified as underweight. The statistics from the Multiple Indicator Survey Sindh Report, 2014, further demonstrate the extent of the catastrophe experienced by children below the age of five. The prevalence of Global Acute Malnutrition (GAM) in Tharparkar is reported to be 22.7% of the population, while in Sanghar it affects 16.3% of the population, and in Kamber Shadadkot it affects 13.8% of the population. According to statistics from the World Bank (2015), over sixty percent (60%) of young children in Sindh are at risk of suffering from severe and persistent malnutrition. The source cited is UNICEF, in the year 2015, on page 16.

The Tharparkar district is characterised by extreme poverty and is considered one of the most deprived regions in the Sindh province. Tharparkar is a desolate area covered in sand, lacking in resources, sparsely populated, and devoid of any commercial or industrial activity. It is divided into seven Taluka. The Tharparkar region is inhabited by around 16,492 inhabitants, residing within an area of approximately 22,000 square kilometres. From 2014 to 2018, the area had a famine-like situation resulting in over a thousand fatalities, mostly among infants. From 2012 to 2014, farmers in the Tharparkar region experienced a period of infertility that prevented them from cultivating their primary crops. The prevalence of underweight children is 67%. The prevalence of stunting among children in Tharparkar was 45.9 percent between 2001 and 2017. The source of this information is the Government of Pakistan and UNICEF Pakistan in the year 2011.

Every day, a significant number of children under the age of five succumb to hunger. In the Tharparkar district of Sindh province, around 500 young children die annually due to being underweight and having inadequate nutrition. Among the 627 children in the Tharparkar area who participated in the Nutrition and Mortality

Study conducted by HANDS and PDMA, at least 269 children (ages 0-5) were identified as underweight. The Tharparkar district demonstrates the highest rates of malnutrition compared to other districts, attributed to poor governance, lax oversight, extreme poverty, and insufficient educational levels, as evidenced by studies from ASIA & Analysis in 2017 and the "Maternal and Child Health (MCH) Programme Indicator Survey 2013 Sindh Province" in 2013.

Malnutrition is a pervasive problem that affects individuals of all ages across all nations. Nonetheless, it bears the direst repercussions for newborns and young children worldwide. Malnutrition accounts for the deaths of around 500,000 children under five annually, becoming the leading cause of mortality in this demographic (UNICEF; WHO; World Bank, 2018). The World Food Programme (2017) reports that around 3.1 million children perish annually due to insufficient food intake (WFP, 2017).

Problem Statement

Childhood malnutrition may negatively impact development potential and heighten susceptibility to sickness and death in later life stages. Malnourished children are more prone to become malnourished adults, who have an increased likelihood of illness and mortality (Asim & Nawaz, 2018b). This research aims to examine the socioeconomic variables influencing the eating habits of children attending school. The determinants include elements like the child's age, birth order, mother educational level, family income, and household living conditions, among others (Saleem et al., 2021). A correlation exists between preschoolers and school-aged children regarding stunting, underweight status, and, in some regions, wasting. Thorough study on the nutritional health of school-aged children indicates that this population is impacted by these issues. The incidence of wasting in this cohort parallels that seen in preschool-aged children, indicating the persistence of the condition (Khanam & Nghiem, 2014). While these studies cannot be generalised to all school-aged children in the individual place or region examined, they consistently demonstrate the prevalence of stunting and underweight among school-aged children across Africa, Asia, and South America. Nevertheless, the majority of research consistently demonstrates a trend of ongoing linear growth limitation throughout the primary school years. This indicates that a considerable percentage of severe stunting may be ascribed to postponed puberty and ensuing catch-up development in older children. Nonetheless, the prevalence of stunting remains very high.

This phenomenon may be attributed to the disparity in birth rates between children in developing and developed countries (Krause & Krause, 2017). While the complete physiological implications of these findings are not entirely clear, they

potentially offer an opportunity to enhance the growth and development of school-aged children. It is widely acknowledged that children with impaired growth tend to commence their education later than their peers and have a significantly reduced probability of completing high school. Notably, it appears that boys of school age are more susceptible to experiencing stunted growth compared to their female counterparts (Akbar & Hirani, 2012). Numerous studies have shown elevated rates of iron deficiency and anaemia, with almost universal prevalence of anaemia among adolescent girls and boys in some nations. This has direct consequences for their growth, cognitive development, and, in the case of adolescent girls at risk of early pregnancy, an elevated likelihood of mortality. Notwithstanding efforts to iodise salt, distribute supplements, and enhance public awareness, iodine deficiency remains a significant global problem. Numerous studies have shown that this deficiency adversely affects intellectual ability (Save the Children et al., 2013). There is little evidence about the extent or prevalence of vitamin A deficiency, despite recent research indicating that this is a matter of considerable significance to public health among school-aged children. This leads to diminished immunity, elevates the probability of disease acquisition, and may result in heightened absenteeism. A deficiency of vitamin A in this group may hinder the effectiveness of interventions designed to reduce anaemia prevalence (Nafees et al., 2012). The prevalence of underweight and stunted children in Sindh province is among the highest in the nation. Recent data show that District Tharparkar has the highest prevalence of malnourished children. Every individual possesses the intrinsic right to adequate sustenance. The main reason for the high child death rate in Pakistan is not enough food (Gillani et al., 2022). Malnutrition was responsible for nearly fifty percent of all fatalities in Pakistan (UNICEF, 2017). Kids who are starving have a harder time learning. The compromised immune systems of primary school students in Tharparkar negatively impact their cognitive and physical development, increasing their vulnerability to illness and disease. This study aimed to assessing the prevalence and distribution of malnutrition, negatively impacting the education and health of primary school students in the Tharparkar region of Pakistan. This study seeks to evaluate the nutritional status of children and analyse the effects of malnutrition on the health and education of primary school-aged children (Govt of Sindh, TRF, 2020).

Study Objectives

- To assess the nutritional status of school-aged children.
- To ascertain the impact of familial background on the nutritional status of school-attending children.

- To ascertain the impact of socio-economic factors on the nutritional status of school-aged children.
- To ascertain the impact of nutritional status on school-aged children.

Study Questions

- To what extent are children studying in primary schools well nourished?
- To what extent does the influence of familial background affect the nutritional status of school-age children?
- To what extent does the influence of socio-economic factors affect the nutritional status of school-age children?
- To what extent are the consequences of the nutritional status of school-age children?

LITERATURE REVIEW

The research studies conducted by Tariq Bhatti, Sumera (2020), indicated that a well-balanced diet correlates with improved academic achievement among students particularly at primary school level. When children have good and balanced diet that follows the prescribed national and international health standards, they become better at both physical and intellectual tasks. The growth in the number of underweight and malnourished children may be ascribed to causes such as a lack of education, big families, an unstable food supply, and parental neglect. Students who have a good and balanced supper exhibit a greater propensity to concentrate on the subject matter delivered in class than their hungry counterparts. Not giving kids meals may disrupt their intellectual, cognitive, and receptive surroundings, which might slow down their overall mental growth (Bhatti, Sumera, 2020).

Shah, Bhatti, and Qureshi (2020) conducted research in the Tharparkar region to examine the prevalence of malnutrition among children and its effects on academic performance and attendance at government primary schools. The study aimed to examine the impact of nutritional quality on children's growth. The findings indicate that 71% of primary school students in specific Union Councils (UCs) within the Tharparkar District were malnourished, as evidenced by their body mass index. The research also showed that girls were much more affected by

malnutrition than boys (Qureshi et al., 2020). Ahsan's (2020) study revealed that the rates of malnutrition among school-aged children residing in urban slums were 38.3 percent for stunting, 28.5 percent for wasting, and 17.5 percent for underweight, based on the CDC's 2000 standards. Additionally, the study indicated that malnutrition was more prevalent among men (Ahsan, 2020).

Khoso, Qureshi, and Bhatti (2021) assert that the study revealed indications of malnutrition among elementary school children in the rural regions of Jamshoro district. The people who live there have had a big impact on their lives and health because they don't have easy access to food and water or basic medical care. Malnutrition is not an issue in contemporary society; nonetheless, it has endured for an extended period due to many social, political, and environmental factors. The study's findings show that kids who eat well fare better in school. When kids have the correct nutrition, their bodies and minds are better able to adapt and perform more effectively, as recommended by health experts. The rates of malnutrition among children were substantially higher than typical. This was because they didn't have enough knowledge, had bigger families, had trouble getting food, had less rain, and lived in dry areas. A lack of vitamins and minerals, bigger families, and less rain were some of the things that made things worse. The investigation also found that some of the primary school-aged children in the District of Jamshoro in Sindh, Pakistan, were not getting enough food. Researchers have found that a person's height, weight, and body mass index (BMI) all have a big impact on how well they do in school. Students who had a healthy and well-balanced dinner were more likely to pay attention to what they were being taught than students who were hungry. Malnourished children may undergo changes in their mental, intellectual, and emotional states, consequently impeding their cognitive development (Qureshi & Khoso, 2020).

Achakzai and Khan (2016) assert that 48% of children are stunted, and 10% are experiencing wasting. The study also discovered a significant correlation between stunting and wasting, as well as between wasting and various sociodemographic factors, maternal health, and child health indicators. Hamad et al. (2016) assert that males are significantly more susceptible to malnutrition compared to females. Khan et al. (2016) say that 39% of the population was underweight, 48% were stunted, and 16% were wasted. The researchers discovered that men were more surprised than females. Furthermore, children from the poorest households were twice as likely to have wasting and stunted development as those from wealthy families. Mahmood et al. (2016) found that around 32% of children are malnourished. The study's results show a substantial link between hunger and both maternal illiteracy and the presence of people with disabilities in the household. According to SMART (2016) research, children in rural regions had a 30% malnutrition rate, compared to 19% in urban areas. Half of the youngsters

showed signs of shock. Infants aged 6 to 17 months seemed more confused and exhausted than younger children and older age groups. Zanib and Qadir (2016) discovered that the usage of child labourers who had undergone physical abuse as domestic workers was the leading cause of malnutrition.

METHODOLOGY OF RESEARCH

This study employed a cross-sectional design, which entails gathering data from a population at a specific moment in time. The researchers opted for a quantitative methodology. The study area in District Tharparkar consists of seven Taluka. The target population was School (N=26,70), and students were (N=14,380). Total school visited by researchers was 75 as per random selection. The researcher used the Krejcie and Morgan table to ascertain the suitable sample size of the pupils. The overall population of class-five pupils was 14,380, exceeding 10,000 responses. Consequently, the representative sample size for this research was determined to be (n=375) based on the selected table. The parents and children involved in this study were both surveyed using a research questionnaire. Surveys, interviews, structured and semi-structured questionnaires, and other relevant data collection tools were used in the research. Using high-tech instruments and procedures outlined by the 2007 World Health Organisation standards, the fifth graders in their class had their weight and height measured. Each student's weight, height, and age were used to calculate their body mass index (BMI), which indicated whether they were underweight, normal weight, or overweight. A person's height and weight were measured using measuring tapes and scales, respectively. The body mass index (BMI) was calculated from the collected data and then examined. According to Gay (2006), while assessing the reliability of a research tool, it is important to look at how well it measures both face and content validity. After consulting with the research supervisor, a language expert, and a child malnutrition expert, the researcher made sure that the instrument's questions cover all study objectives. In doing so, we aimed to assess the questionnaire's reliability and the questions' relevance and validity. Changes and updates were made to the survey in response to the feedback of the experts. Data collectors were trained once the questionnaire was finalised, and pilot research was carried out in a Tharparkar region union council. To check whether the questionnaire was practical and accurate, and to find any mistakes or unclear areas, thirty people were questioned. Following the pilot study, adjustments were made according to the advice of the specialists. When a research instrument successfully measures its intended construct, Polit and Beck (2004) say that it is legitimate (Polit, 2004). To ensure that the study instruments consistently produced the same results, the test-retest method was used. The same group of people were polled twice, with a gap of two weeks in between each administration. Next, the collected responses were examined for coherence. In order to get the Cronbach Alpha Coefficient, we

compared the questionnaire's questions to the participants' answers and used data from the pilot study to evaluate the survey instruments' reliability. This proves that the survey is accurate. Results should be considered consistent if they hold up throughout many measurement periods. In most cases, a test-retest statistical result greater than 0.75 indicates that the surveys are reliable (Creswell, 2005).

RESULTS

The study on Identification and Study of Malnutrition has been done in a systematic way when it comes to analysing and interpreting the data. The data was collected, sorted, examined, and understood using the following steps.

This process looked at four important factors that affect how data is processed and understood.

1. Assessing the nutritional status of school-attending children
2. The familial background and dietary status of children
3. The socio-economic factors that affect the nutritional status of school aged children.
4. Effects of malnutrition on students' education, and health status

The nutritional status of school-aged children is a key factor in analysing and understanding data. This is because it gives us information about the children's overall health and well-being, which helps us find any nutritional problems or too much food in the school population. When looking at and interpreting data, the family background and nutritional status of the children should be taken into account as an important factor. The family background can have a big effect on a child's nutrition. To better understand the children's nutritional status, it is necessary to understand the family dynamics, socio-economic status, and other important factors. The examination and interpretation of data regarding children's nutritional status must take into account socio-economic factors. This is because a child's socio-economic status can have a big impact on their nutritional health. Poverty, access to healthcare, and the availability of nutritious food can all have an effect on a child's nutritional status. The effect of nutritional status is an important part of analysing and interpreting data. It helps people understand the long-term effects of a child's current nutritional state. For example, if a child is not getting enough food, it can lead to long-term health problems, like lower cognitive and physical abilities.

STATISTICAL ANALYSIS OF THE DATA

Assessing the nutritional status of school-attending children

The quality of the food children eat at school is a big part of their overall health and happiness. Poor nutrition can lead to a number of health problems, such as stunted growth, obesity, anaemia, and vitamin deficiencies. Without enough food, a child's physical, mental, and social growth can't happen. One way to check a child's nutritional health is to find out their body mass index (BMI). The World Health Organisation (WHO) has set some body mass index (BMI) standards to make sure that kids are getting enough to eat. A body mass index (BMI) between the 5th and 85th percentiles is healthy, but a BMI lower than that is considered underweight. If your BMI is higher than the 85th percentile, you are considered overweight or obese. Along with body mass index (BMI), anthropometric measurements like height, weight, and waist circumference, as well as how much food you eat and how active you are, can be used to tell how healthy your diet is. Studies show that kids from richer families tend to be better nourished than kids from poorer families. If we want to make sure kids get enough food, it's important to make sure they can get healthy food at home and at school. It is also very important to teach people about nutrition in homes, schools, and the general public. It is very important to check on a child's nutritional health and give them the right treatments when they need them to make sure they grow and develop normally.

Table 1: Nutritional and Growth Status of Children (N = 300)

Indicator	Category	Frequency (n)	Percentage (%)
Weight Status	Underweight	201	67.0
	Normal weight	93	31.0
	Overweight	5	1.7
	Obese	1	0.3
Caloric / Nutritional Intake	Below average	121	40.3
	Normal	95	31.7
	Average	22	7.3
	Poor	62	20.7
Height-for-Age	Stunted	257	85.7
	Below normal	22	7.3
	Normal	21	7.0
Weight–Height Classification	Underweight	205	68.0
	Normal weight	86	28.0
	Overweight	7	2.3
	Obese	2	0.7

A survey was carried out on 300 youngsters to categorise their weights, and the results are shown on the table. Of the whole sample, 201 children (67% of the total) were found to be underweight, 93 children (31% of the total) to be of normal weight, 5 children (1.7% of the total) to be overweight, and 1 kid (0.3%) to be obese. Hence, 201 out of 300 children were considered underweight, with 1 out of 300 being overweight. The results of a survey measuring the caloric intake of 300 youngsters are shown in the table data. With regard to their food consumption, 40.3% (121 children) of the questioned population were deemed to be below average, 31.7% (95 children) to be normal, 7.3% (22 children) to be average, and 20.7% (62 children) to be poor. As a result, 121 out of 300 youngsters rated their nutritional consumption as below average, suggesting that their homes lacked a balanced and healthy diet. The results of a study that aimed to classify 300 youngsters according to their height-for-age are shown in the table below. There were 257 children whose growth was deemed stunted, 22 children whose growth was deemed below normal, and 21 children whose growth was deemed ordinary. It follows that 257 out of 300 children were considered stunted, with just 22 youngsters being considered average. The table shows the results of a survey of 300 kids that asked them what their weight and height categories are. The results showed that 205 of the 205 children surveyed (68.0%) were underweight, 86 (28.0%) were normal weight, 7 (2.3%) were overweight, and 2 (0.7%) were obese. So, 257 of the 300 children were found to be underweight, and only 22 were found to be at a normal weight.

Familial background and dietary status of children

The nutritional status of children can be significantly influenced by their familial background. Families with limited resources may find it hard to buy healthy foods, which can lead to not getting enough nutrition and a higher risk of malnutrition. Additionally, families with lower socioeconomic status are more likely to live in places where healthy food is hard to find, which makes the problem of poor nutrition even worse. Also, cultural and traditional ways of eating may not give the body the nutrients it needs for optimal growth and development. Finally, parents who don't know enough about nutrition or how to teach their kids about it can make their kids eat badly, which can make their nutritional health even worse.

Table 2: Familial background and dietary status of children

Indicator	Category	Frequency (n)	Percentage (%)
Age	≤6 years	20	6.7
	7–9 years	143	47.7
	10–12 years	126	42.0

	≥13 years	11	3.7
Birth Order	First	7	2.3
	Second	73	24.3
	Third	95	31.7
	Fourth	97	32.3
	Fifth or later	28	9.3
Gender	Male	198	66.0
	Female	102	34.0
Caste/Class	High	15	5.0
	Middle	214	71.3
	Low	71	23.7
Religion	Hindu	195	65.0
	Muslim	105	35.0
Background Area	Rural	284	94.7
	Urban	16	5.3
Family Type	Nuclear	78	26.0
	Joint	222	74.0
Family Size	≤4 members	4	1.3
	5–7 members	151	50.3
	≥8 members	145	48.3

Father's Education	Illiterate	40	13.3
	High school or below	224	74.7
	Intermediate	31	10.3
	Graduate or higher	5	1.7
Mother's Education	Illiterate	145	48.3
	High school or below	147	49.7
	Intermediate	7	2.3
	Graduate or higher	1	0.3
Wake-Up Time	Before 5 am	12	4.0
	Before 6 am	183	61.0
	7 am or later	105	35.0
Bedtime	Before 8 pm	3	1.0
	Before 9 pm	217	72.3
	10 pm or later	80	26.7
Infection Disease Status	Previously infected, now healthy	179	59.7
	Currently receiving treatment	106	35.3
	No disease	15	5.0
Medical Facility Preference	Government hospital	173	57.7
	Nearby hospital	113	37.7
	Private hospital	14	4.7
Vaccination Status	Regularly vaccinated	186	62.0
	Irregularly immunised	106	35.3
	Casual status	7	2.3
	Missing data	1	0.3

The table presents the distribution of age among 300 children. 6.7% (20 children) are aged 6 or less, 47.7% (143 children) are aged between 7 and 9, 42.0% (126 students) are aged between 10 and 12, and 3.7% (11 students) are aged 13 or older.

The table presents the birth order analysis of a cohort of 300 children. Among them, 7 (2.3%) are the eldest child in their family, 73 (24.3%) are the second-born, 95 (31.7%) are the third-born, 97 (32.3%) are the fourth-born, and 28 (9.3%) are the fifth-born or later.

The table data presents the findings of a survey conducted on 300 children to determine their gender. Out of the total surveyed population, 66.0% (198 children) were identified as male, while 34.0% (102 children) were identified as

female. Therefore, the majority of the surveyed children (198 out of 300) were male, while the remaining proportion (102 out of 300) were female.

The table presents the distribution of 300 children according to their caste/class. Among them, 15 (5.0%) belong to the high caste/class, 214 (71.3%) belong to the middle caste/class, and 71 (23.7%) belong to the lower caste/class.

This table presents the religious distribution of 300 youngsters. Out of the total, 195 (65.0%) identify as Hindu, while 105 (35.0%) identify as Muslim.

This table presents the distribution of the background area for a total of 300 students. Out of them, 284 (94.7%) come from rural areas, while 16 (5.3%) come from urban areas.

The table presents the findings of a survey conducted on 300 students about their family type. Out of the total studied population, 26.0% (78 children) belonged to nuclear families, while 74.0% (222 children) belonged to joint families. Therefore, the majority of the children surveyed (222 out of 300) were part of joint families.

The table data presents the findings of a survey conducted on 300 primary school aged children regarding the size of their families. Among the surveyed population, 1.3% (4 children) belonged to families with up to 4 members, 50.3% (151 children) belonged to families with 5 to 7 members, and 48.3% (145 children) belonged to families with 8 or more members.

The table data presents the findings of a survey conducted on 300 primary school aged children regarding their fathers' level of education. Out of the surveyed population, 74.7% (224 children) had fathers who had completed high school or below, 13.3% (40 children) had fathers who were illiterate, 10.3% (31 children) had fathers with intermediate education, and 1.7% (5 children) had fathers who were graduates or held higher degrees.

The table displays the findings of a survey conducted on 300 children regarding their mothers' educational background. Among the surveyed population, 49.7% (147 children) had mothers who had completed high school or below, while 48.3% (145 children) had mothers who were illiterate. Only 2.3% (7 children) had mothers with intermediate education, and a mere 0.3% (5 children) had mothers who were graduates or held higher degrees.

The table data presents the findings of a survey conducted on 300 children on the time they wake up in the morning. Out of the studied population, 61.0% (183

children) woke up before 6 am, 35.0% (105 children) woke up at 7 am or later, and 4.0% (12 children) woke up before 5 am.

The table presents the findings of a survey conducted on 300 children about their bedtime. Out of the total studied population, 72.3% (217 children) had a bedtime before 9 pm, 26.7% (80 children) had a bedtime at 10 pm or later, and 1.0% (3 children) had a bedtime before 8 pm.

The table displays the results of a survey conducted on 300 children regarding their infection disease status. Out of the surveyed population, 59.7% (179 children) had previously been infected but are currently not, 35.3% (106 children) are currently receiving treatment for the disease, and 5.0% (15 children) do not have the disease. Analysis: The table presents information about the availability of medical facilities based on a survey of 300 children. Among the surveyed population, 57.7% (173 children) prefer government hospitals, 37.7% (113 children) prefer hospitals in their nearby area, and 4.7% (14 children) prefer private hospitals.

This table presents the vaccination status of 300 children. Out of the total, 186 children (62.0%) were regularly vaccinated, 106 children (35.3%) were irregularly immunised, 7 children (2.3%) had a causal status, and one child's vaccination status is missing in the system.

The socio-economic factors influencing the nutritional condition of children.

Nutrition plays a crucial role in the socio-economic advancement of children and their families. Sufficient nutrition is vital for optimal physical and cognitive growth and development, and it significantly influences overall health and welfare. Not getting enough nutrients can lead to poor health and lower school performance, which can then lead to poverty and other problems in society. The socio-economic status of parents has a big effect on the nutritional health of their children. The nutritional status of children can be affected by things like the parents' level of education, the family's income, and the parents' jobs. When parents have more education and money, their kids are more likely to eat well because the parents are more likely to know how to make healthy food choices and be able to afford them. In the same way, some jobs, especially those in agriculture or food, may give people access to better food choices. On the other hand, families with less educated and lower-income parents may not be able to get healthy food or learn about good nutrition, which can make their children's nutritional status worse.

Table 3: Socio-economic Factors

Indicator	Category	Frequency (n)	Percentage (%)
Family Income	Below 3000	50	16.7
	3001–5000	63	21.0
	5001–10000	167	55.7
	10001–15000	18	6.0
	Above 15000	2	0.7
Father's Occupation	Labourer	272	90.7
	Private job	12	4.0
	Government job	6	2.0
	Business	1	0.3
	Other/Unspecified	9	3.0
Mother's Occupation	Housework	151	51.7
	Labourer	132	44.0
	Agriculture	9	3.0
	Private job	3	1.0
	Government job	1	0.3
Housing Condition	Kacha/Mud home	255	85.0
	Pakka house	45	15.0
Ownership Status	Own house	256	85.3
	Rent house	44	14.7
Cooking Method	Chulla	283	94.3
	Gas burner	17	5.7
Electric Supply	Available	258	86.0
	Not available	42	14.0
Communication Media	Mobile	191	63.7
	Television	73	24.3
	Radio	32	10.7
	Newspaper	4	1.3
Milch Animal Status	Household has milch animals	188	62.7
	No milch animals	112	37.3
Current Mode of Transport	None	169	56.3
	Donkey cart	56	18.7
	Cycle	54	18.0
	Motorcycle	16	5.3
	Car/Tractor	5	1.7
Preferred Mode of Transport	On foot	192	64.0
	Cycle	87	29.0

	School car	21	7.0

The table shows the family income of 300 kids who took part in a survey. Of the people who were surveyed, 55.7% (167 children) had a family income between 5001 and 10000. Additionally, 21.0% (63 children) had a family income between 3001 and 5000, while 16.7% (50 children) had a family income below 3000. Only 6.0% (18 children) had a family income between 10001 and 15000, and a mere 0.7% (2 children) had a family income exceeding 15000. Consequently, the majority of the children surveyed (167 out of 300) had a family income between 5001 and 10000.

The table presents data on the occupations of fathers in a survey of 300 children. Among the surveyed population, 90.7% (272 children) had fathers working as labourers, 4.0% (12 children) had fathers in private jobs, 3.0% (9 children) had fathers in unspecified occupations, 2.0% (6 children) had fathers in government jobs, and only 0.3% (1 child) had fathers in business occupations.

The table presents data on the occupations of mothers in a survey of 300 children. Out of the surveyed population, 51.7% (151 children) had mothers working in house-hold occupations, 44.0% (132 children) had mothers working as labourers, 3.0% (9 children) had mothers working in agriculture, 1.0% (3 children) had mothers working in private jobs, and only 0.3% (1 child) had mothers working in government jobs.

This table presents the housing conditions of 300 children examined. Out of the total, 255 children (85.0%) lived in kacha or mud homes, while 45 children (15.0%) lived in pakka houses.

The table presents data on the ownership status of homes among a group of 300 children. Out of them, 256 children (85.30%) own houses, while 44 children (14.7%) rent houses.

The table presents data on the cooking methods used by a sample of 300 children. Out of the total, 283 children (94.3%) used the cooking method known as "chulla," while 17 children (5.7%) used a gas burner for cooking.

The table presents data on the electric supply facilities for a total of 300 surveyed children. Out of these, 258 children (86.0%) had access to electricity facilities, while 42 children (14.0%) did not have access to such facilities.

This table presents the distribution of communication media among a group of 300 children. Out of them, 191 children (63.70%) used mobile devices, 73

children (24.3%) used television, 32 children (10.7%) used radio, and 4 children (1.3%) used newspapers as their primary communication medium.

The table presents data on the milch animal status of 300 children. Out of them, 188 children (62.7%) were milch animals, whereas 112 children (37.3%) had milch animals in their households.

The table presents data on the mode of transport used in a survey of 300 children. Out of the surveyed population, 56.3% (169 children) did not use any mode of transport. 18.7% (56 children) used a donkey cart as their mode of transport. 18.0% (54 children) used a cycle. 5.3% (16 children) used motorcycles. Only 1.7% (5 children) used a car or tractor as their mode of transport.

The table presents data on the preferred mode of transportation among 300 students polled. Out of the total surveyed population, 64.0% (192 children) preferred to go on foot, 29.0% (87 children) preferred cycling, and 7.0% (21 children) preferred using a school car.

Consequences of nutritional status

Depending on one's nutritional state, one's physical and mental health might be negatively impacted in the short and long term. Deficits in vital nutrients, lethargy, melancholy, a compromised immune system, poor focus, and diminished physical performance are some of the short-term effects of an unhealthy diet. Obesity, diabetes, heart disease, joint problems, and certain types of cancer are among conditions that it may exacerbate over time. On top of that, it may prevent kids from developing normally, which in turn makes them less successful in school and more likely to have mental health issues.

Table 4: Nutritional Status

Indicator	Category	Frequency (n)	Percentage (%)
Bathing Frequency	Every day	61	20.3
	Twice weekly	159	53.0
	At least once a week	75	25.0
	Not reported	5	1.7
Type of WC	Pakka WC	10	3.3
	Outside kacha WC	44	14.7
	Open WC	246	82.0
Nail-Cutting Habit	Every week	5	1.7
	Every two weeks	138	46.0

	Once a month	141	47.0
	Irregular / Not regular	16	5.3
Garbage Disposal	Trash can	12	4.0
	Thrown outside	276	92.0
	Collected from outside	12	4.0
Water Source	Government supply	221	73.7
	Hand pump	30	10.0
	Private water connection	19	6.3
	Self-hand pump	30	10.0
Drinking Water Treatment	Untreated	292	97.3
	Boiled	3	1.0
	Filtered	9	3.0
Sewage Disposal	Open technique	187	62.3
	Open drains	113	37.7
Attendance	Perfect	20	6.7
	Medium	105	35.0
	Irregular	139	46.3
	Very poor	36	12.0
Interest in Education	Very interested	35	11.7
	Somewhat interested	42	14.0
	Not interested	181	60.3
	Completely uninterested	42	14.0
Curiosity Level	Low	167	55.7
	None	9	4.0
	High	14	4.7
Physical Activity Level	Very active	17	5.7
	Moderately active	55	18.3
	Below average	217	72.3
	Sedentary	11	3.7
Extracurricular Activity Participation	Excellent	14	4.7
	Good	56	18.7
	Average	170	56.7
	Poor	60	20.0
Creativity Level	Extraordinary	10	3.3
	Decent	59	19.7
	Regular	146	48.7
	Poor	84	28.0
	Very poor	3	1.0

Motivation & Ability	Exceptional motivation & ability	9	3.0
	Good motivation & average ability	67	22.3
	Outstanding motivation & average ability	169	56.3
	Valid motivation, inadequate ability	55	18.3
Nutritional Status	Appropriate diet	25	8.3
	Normal diet	49	16.3
	Mild malnutrition	54	18.0
	Moderate malnutrition	132	44.0
	Severe malnutrition	40	13.3

According to the numbers in this table, 61 people, or 20.3% of the total sample, bathe every day. On top of that, 53.0% of the people surveyed (159 people) said they bathe twice weekly. Moreover, 75 people, or 25.0% of the total, bathe at least once a week. Finally, out of the total size, 5 people (1.7% of the total) have not reported how often they take a bath. At the end of the day, 300 people were polled.

Three hundred people participated in the survey, and the table below shows the percentage and frequency of different types of WCs utilised. According to the results, a respectable pakka WC was used by 3.3% of the people surveyed, while an outside katcha WC was used by 14.7% and an open WC by 82%.

Three hundred people's nail-cutting habits are shown down on the table. According to the results, almost half of all people (46%) cut their nails at least once every two weeks, and nearly half (47%) do it once a month. Some 1.7% of people cut their nails every week, while 7.7% haven't settled on a regular schedule.

Here we can see how 300 people were distributed in terms of their garbage disposal strategies. Among the sample, 4.0 percent utilise a trash can, 92.0 percent simply throw it outside, and 4.0 percent collect it from outside their houses.

The table shows the percentage and frequency of water delivery technologies used by homes in a certain area. While 73.7% of the 300 families get their water from the government, 10% use a hand pump, 6.3% have a genuine water connection, and 10% depend on a self-hand pump.
There is a table with statistics on how often and how many people use different methods to get water for drinking. Most people drink water just as it is, without any

kind of treatment, at 97.3%. Less than one percent of the population uses water purification systems, one percent boils water before drinking it, and three percent filters water before drinking it.

This table shows that open techniques account for 62.3% of sewage disposal, whereas 37.7% is disposed of by draining it into open drains. All sewage disposal is accounted for by these two processes together. The attendance records of 300 students are shown on this table. Among the pupils surveyed, 6.7% have perfect attendance, 35% have medium attendance, 46.3% have irregular attendance, and 12% have really poor attendance. The table shows the results of a survey asking 300 people about their interest in education. Their levels of interest were as follows: 11.7% were very interested, 14% somewhat interested, 60.3% not interested at all, and 14% completely uninterested. The sum of all percentages is one hundred percent. The curiosity levels of a 300-person cohort are shown on the table. On the whole, 167 people (55.7% of the total) show a low degree of interest, 9 people (4.0%) show no curiosity at all, and 14 people (4.7%) show a high level of inquiry. As a result, most people in the group aren't really interested in learning new things. The table below shows the results of a survey measuring 300 people's athletic activity levels. The results show that only 5.7% of the population is very active, 18.3% are moderately active, 72.3% are below average, and 3.7% are completely sedentary. The bulk of the people do not engage in very physical sports, according to these data. The proportion and frequency of students participating in extracurricular activities are shown in this table. The results show that out of the total number of participants, 14 (4.7% of the total) thought it was great, 56 (18.7%) were average, 170 (56.7%) were average, and 60 (20.0%) were awful. Overall, 56.7% of students said their level of involvement was average. The table shows the degrees of creativity of three hundred people. From this group, 3.3% demonstrated extraordinary creativity, 19.7% decent creativity, 48.7% regular creativity, 28.0% terrible creativity, and 1% very worse creativity. To sum up, most of the people there were creative types. A poll on ability and motivation was conducted, and the results are shown in the table. The results show that out of the total number of people surveyed, 9 (or 3.0% of the total) have exceptional motivation and exceptional ability; 67 (22.3%) have good motivation and average ability; 169 (56.3%) have outstanding motivation and average ability; and 55 (18.3%) have valid motivation but inadequate ability. The poll has a total of 300 participants, which is 100%. The nutritional status of 300 people is shown in the table. Of this group, 8.3% are considered to have an appropriate diet, 16.3% to have a normal diet, 18.0% to have mild malnutrition, 44.0% to have moderate malnutrition, and 13.3% to have very little nutrition. The vast majority of people are clearly malnourished to some extent; in fact, 62.3% of the population is affected by malnutrition in some way.

SUMMARY OF THE STUDY

A person's susceptibility to disease and death as an adult might be exacerbated if they experience stunted growth as a child. Childhood malnutrition increases the risk of adult malnutrition, which in turn increases the risk of disease and mortality. Age, birth order, mother education, family income, and housing circumstances are some of the socioeconomic variables that impact school-aged children's nutritional health. This research is an effort to analyse some of these elements. The most inclusive studies on the nutritional health of children who are school-aged students have shown that this age group had rates of stunting, underweight, and wasting similar to those of pre-schoolers in certain locations. Although these studies may not represent the sample as a whole, the prevalence of stunting and underweight among school-aged children in South America, Asia, and Africa is consistently high. High rates of stunting may be due to delayed puberty and catch-up development in older children, even though the majority of research observed a trend of persistent linear growth retardation throughout the primary school years. These findings may open a door to bettering the development of school-aged youngsters, even if their full physiological implications are not yet apparent. Children whose development is retarded obviously start school later and, by extension, are less likely to graduate. When compared to girls, guys seem to be more physically retarded in the classroom. A major concern in nations going through the "nutrition transition" is the alarming increase in childhood obesity and overweight. More and more research is showing a link between stunting and obesity, which might pose serious problems for developing countries in the years to come.

There is evidence that shows a correlation between a lack of formal education and increased incidence of disease and malnutrition, especially stunting, in children. Research like this shows how vulnerable this population is and how important it is to include them in any school health programs that are already in place. Children of school age may benefit greatly from programs that are implemented inside schools that aim to improve their nutrition and overall health. Supplementing students' iron intake with weekly or irregular dosages may increase the efficacy of these programs, according to the available evidence. Research in South America and East Africa has shown that weekly dosages increase iron levels and adolescent growth. To have such an effect, however, it is required to ensure a certain degree of compliance at the programme level. Children who are deficient in iron, iodine, or vitamin A may benefit from taking a variety of micronutrient supplements, according to research. Evidence suggests that iodine deficiency among school-aged children has significantly decreased since iodised salt was recently used.

Those pupils who are already malnourished benefit the most from school feeding programs, especially when breakfast is provided, since it improves their attendance and cognitive ability. There is a strong correlation between the existence, condition, and appropriate use of facilities and the risk of disease transmission. Education initiatives pertaining to water, sanitation, and hygiene must, therefore, take precedence. Also, by interacting with their classmates and the community at large, school-aged children may successfully convey vital hygiene lessons and advocate for improved sanitation, according to research. When kids of school age have health and nutrition issues, it may show in their grades, tardiness, and overall development. Diet and health are concerns that are strongly correlated with socioeconomic class. The current research is to investigate how socioeconomic variables impact the nutritional and health problems experienced by children of school age.

Students from participating schools were surveyed utilising an interview schedule to gather data for research. The purpose of the program was to gather data from selected children on a variety of demographic and socioeconomic criteria, including but not limited to: age, caste, religion, family income, parents' degree of education, quality of life, food habits, personal hygiene routines, and general health. In addition to that, we measured their weight and height and did other health-related tests. Additionally, data was gathered from the children's teachers on their performance in class. Several governmental and non-governmental entities provided the secondary data. A computer was used to handle the main data obtained from the interview schedule, whilst secondary data was processed by hand.

KEY FINDINGS

Each researcher endeavours to extrapolate specific facets of the subject they are investigating by analysing their observations. This is achieved by deriving conclusions from the primary outcomes and delineating the implications. Our current objective is to accomplish this. The subsequent sections present the principal conclusions and findings of the study:

- Nutritional assessment of children attending school
- Familial background and dietary condition of children
- Socio-economic factors influencing the nutritional condition/status of children.
- Consequences of malnutrition on students’ health and education.

Nutritional status of school-age children

The primary discoveries about the nutritional condition of school-age children are as follows:

- Of the 300 youngsters surveyed, a significant majority (201) were found to be underweight, suggesting a prevalent problem of malnutrition within the assessed group.

- Out of the 300 children tested, a majority of 121 were found to have below average food consumption, indicating a deficiency in appropriate nutrition throughout the assessed group.

- Out of the total of 300 children examined, a significant majority of 257 were found to be stunted, indicating a prevalent problem of stunting among the investigated community.

- Out of the total of 300 children examined, a significant proportion of them (205) exhibited a lower weight relative to their height, suggesting a prevalent issue of underweight among the investigated community.

The prevalence of obesity in the investigated population is low, as just 2 out of 300 children were found to be fat.

Discussion:

The data presented above suggest that those whose caloric intake falls short of the recommended daily allowance make up the bulk of the malnourished population; furthermore, children who are underweight relative to their height (also known as wasted) account for over three quarters of the malnourished children surveyed. The majority of those who reported being malnourished fall into the category of having a food intake that is lower than the recommended minimum. There is a one hundred percent malnutrition rate among the poorer intake responders. One hundred percent of children who are short or stunted are malnourished, but fewer than a quarter of the total—174 kids—are deemed to be malnourished based on their age-appropriate height. The majority of the children with normal weight are well-nourished, whereas almost three quarters of the children who are underweight for height or wasting are considered to be malnourished. This percentage is steadily rising among youngsters who are overweight or obese.

Familial background and dietary condition of children

The primary discoveries on the familial history and nutritional condition of children are as follows:

- Among the 300 youngsters questioned, the majority (198 out of 300) were male, while the remaining percentage (102 out of 300) were female.
- Among the examined youngsters, a significant majority (222 out of 300) were part of mixed families, whilst a minority (78 out of 300) belonged to nuclear households.
- Most of the children polled (151 out of 300) were from households consisting of 5 to 7 individuals, whilst the rest of the population (145 out of 300) belonged to families with 8 or more members.
- Out of a total of 300 dads, the majority (224) had received education up to the high school level, while 13.3% (40) were unable to read or write.
- Out of a total of 300 moms, the majority (147) had received education up to high school level, while 48.3% (145) were unable to read or write.
- Out of a total of 300 youngsters, the majority (183) woke up before 6 am, while 35.0% (105) woke up after 7 am or later.
- Out of a total of 300 youngsters, the majority (217) had a bedtime of up to 9 pm, whilst 26.7% (80) had a bedtime of 10 pm or later.
- Out of the 300 youngsters questioned, 179, or 59.7%, had previously had an illness but were no longer experiencing it.
- A majority of the polled children, namely 173 out of 300, expressed a preference for government hospitals for their medical treatment. In contrast, 37.7% of the youngsters, equivalent to 113 out of 300, favoured hospitals in their neighbouring region.
- 62.0% (186 out of 300) of the children included in the poll received vaccinations on a regular basis, while 35.3% (106 out of 300) received vaccinations infrequently.

Discussion:

These results suggest that children's nutritional status declines with age. Malnutrition affects the majority of children in higher social classes. Girls are more likely than boys to suffer from malnutrition. Malnutrition affects around two-thirds of children in lower castes but lessens in upper castes. Non-Hindus, especially Muslims, have a larger rate of malnutrition than Hindus. Malnutrition affects almost 60% of children living in rural areas.

The socio-economic factors influencing the nutritional condition of children.

- The primary discoveries about the socio-economic factors influencing the nutritional status of children are as follows:
- The majority of the questioned population's household income ranged between 5001 to 10000.
- The predominant profession among dads was labourer.
- The predominant vocation of moms was homemaking.
- The majority of the studied population's residences were constructed from kacha or mud materials.
- The majority of the polled youngsters have their own residences.
- The majority of the studied youngsters used a chulla for cooking.
- The majority of the studied population had access to power facilities.
- The mobile device was the predominant means of communication.
- The majority of the studied population had dairy animals in their households.
- The majority of the studied population did not utilise any kind of transportation, whereas the most prevalent means of transport was a donkey cart.
- The majority of the studied population preferred walking as their primary means of transportation for convenience, followed by cycling as the second most prevalent form of convenience.

Discussion:

The findings indicate that the surveyed population resides in rural communities with limited resources. The surveyed population generally has low family income and occupation, and most of them live in kacha or mud houses. A majority of the children surveyed own their houses, cook using chulla, and have access to electricity. Mobile phones are the most prevalent means of communication, and a majority of the population own milch animals. The most common mode of transportation is a donkey cart, fol

Consequences of nutritional status

The primary discoveries about the repercussions of nutritional status are as follows-

- Roughly half of the people surveyed take a bath at least twice a week.
- Of those who were surveyed, 82% use an open WC and just 3.3% use a real pakka WC.
- Nearly half of all people cut their nails every two or four weeks, while just a small percentage, around 1.7%, use it regularly.
- While the majority of households get their water supply from the government, a sizeable part of the sample disposes of their garbage outside. As an added note, most people just drink water straight from the tap.
- The total number of people who participated in a survey on how often they use public transport. According to the results, 73.3% of respondents utilise public transit, while 26.7% state that they never use it.
- Most people aren't very active in sports, and most students thought they were average when it came to their involvement in extracurriculars.
- The majority of the people who were asked about their creativity and motivation had typical levels of both, along with normal abilities. Furthermore, 3.3% had outstanding creative abilities, and 3.0% possessed both genuine drive and outstanding skill.
- The community's hunger problem is significant, and it deserves greater attention and resources to address.

Discussion:

It is evident from the results that most individuals value fundamental cleanliness standards and have access to necessities like running water and public transit. On the other hand, malnutrition is a major issue that requires attention. People also have typical levels of inventiveness and legitimate drive, but they aren't extremely engaged in sports.

SUGGESTIONS

The primary suggestions derived from the findings and deductions of this research are as follows-

- The children's diet should be split into portions throughout their growth stage to ensure that they get the required number of calories as food intake.

- It is necessary to frequently record health observations, such as the weight and height of children, to maintain a record and closely monitor their health condition both at school and at home, if feasible.

- In addition to a balanced diet, it is important to get nutrients from food and other supplements, such as vitamins.

- Parents should be made aware of the need for adequate immunization and regular health check-ups throughout their children's formative years. This responsibility may also be undertaken by school administrators.

- It is essential for parents and schools to provide children with training in personal cleanliness and sanitation to establish regular practices.

- It is necessary to extend the Mid-day-Meal and other Government initiatives to include all schools in rural and urban regions to enhance the nutritional well-being of school-age children.

These suggestions, derived from empirical research and real-world observations, are expected to significantly enhance the nutritional well-being of children. It is crucial to closely monitor governmental programmes pertaining to child health and, foremost, to alter public perception regarding these programmes and policies.

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Waheed Akber Khaskheli is a Lecturer in the Department of Social Work at the University of Sindh, Jamshoro. His email address is khaskheliwaheed@usindh.edu.pk.

Namra Shahid is a Ph.D. Research Scholar in the Department of Social Work at the University of Karachi. Her email address is namra_shahid@yahoo.com.

Irfan Ghafar is a Ph.D. Research Scholar in the Department of Social Work at the University of Karachi. His email address is Irfanb506@yahoo.com.