

A PROSPECTIVE OBSERVATIONAL STUDY EXAMINING THE PREVALENCE, CLINICAL PROFILE, AND OUTCOMES OF SEVERE ACUTE MALNUTRITION IN CHILDREN AGED FIVE TO SIXTY

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ABSTRACT

Objective: To ascertain the prevalence and clinical characteristics of severe acute malnutrition (SAM), including kinds, comorbidities, and risk factors, in children between the ages of five and sixty months. Furthermore, to assess the SAM therapy and post-hospitalization course.”

Study Design: A Prospective Observational Study

Place and Duration of Study: From 05-January 2022 to 05- July 2022, this research was carried out at the Peoples university of Medical Health Sciences NawabShah Department of Pediatrics.

Materials and Methods: The prospective study was conducted in the Department of Pediatrics, People’s University of Medical and Health Sciences Nawabshah from January 2022 to July included based on previously specified criteria . A structured proforma was used to record demographics, clinical presentations, and comorbidities. Statistical analysis used appropriate methods to elucidate the prevalence, clinical characteristics, and outcomes associated with SAM in this cohort.

Results: The study found a 3.5% prevalence of severe malnutrition (SAM) in children aged sixty-five months. Clinical presentations included fever (65%), fever (62%), anorexia (55%), and acute respiratory distress syndrome (52%). Comorbidities such as anemia (82%) and pneumonia (38%) were common. Approximately 51% recovered, with an average hospital stay of 9.21 ± 6.78 days. However, four children (6%) died on admission. These findings highlight the enormous burden of SAM and emphasize the importance of effective management strategies to control nutritional maintenance and infectious diseases in affected children emphasize the role of medicine.

Conclusion: The study highlights the widespread challenge of acute malnutrition (SAM) among children in Nawabshah, emphasizing the urgent need for multi-faceted interventions. Addressing the complex intersection of social, economic, and health determinants is essential to improving outcomes. Sustainable treatment is needed to reduce the negative impact of malnutrition and improve child health in resource-limited settings. The findings highlight the critical role of integrated approaches, including medical interventions, prevention programs, and socioeconomic empowerment in the cycle of malnutrition stopping and highlighting long-term health consequences for vulnerable children.

Keywords: Severe acute malnutrition, Clinical profile, Outcomes, Children, Prevalence

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INTRODUCTION

Severe acute malnutrition (SAM) remains a critical public health concern, particularly in low-resource settings, where its prevalence continues to pose significant challenges to child health and development. Defined by the World Health Organization (WHO) as a condition characterized by severe wasting, oedema, or both, SAM represents a grave threat to the lives of

millions of children worldwide^{1,2}. Despite considerable efforts to combat malnutrition globally, the burden of SAM persists, necessitating ongoing research and intervention strategies to mitigate its impact³. The University of Medical & Health Sciences Nawab Shah, located in Pakistan, is a vital center for pediatric care and research, offering insights into the prevalence, clinical characteristics, and outcomes of SAM among children aged five to sixty months⁴. Through a comprehensive prospective observational study conducted within its paediatrics department, this research seeks to unravel the intricate web of factors contributing to the persistence of SAM and identify avenues for targeted interventions⁵. Researchers meticulously documented the experiences of 100 SAM-afflicted children, capturing a snapshot of the multifaceted nature of this debilitating condition⁶. By examining the clinical manifestations of SAM and the socioeconomic determinants and maternal factors influencing its prevalence and severity, this study endeavours to shed light on the complex interplay between nutrition, health, and sociodemographic variables⁷. Understanding SAM's epidemiology and clinical course is essential for devising effective preventive and therapeutic strategies that can break the vicious cycle of undernutrition, infection, and poor health outcomes⁸. By delving into the nuances of SAM management within the context of a tertiary care facility, this research aims to inform policymakers, healthcare providers, and community stakeholders about the urgent need for targeted interventions to address the root causes of malnutrition and improve child survival rates⁹. Through a rigorous analysis of data collected from diverse socioeconomic backgrounds and clinical presentations, this study seeks to bridge the gap between research and practice, fostering a collaborative approach to tackling the scourge of severe acute malnutrition and safeguarding the health and well-being of vulnerable children worldwide¹⁰.

METHODS

The prospective study was conducted in the Department of Pediatrics, People's University of Medical and Health Sciences Nawabshah from January 2022 to July included based on previously specified criteria . A structured proforma was used to record demographics, clinical presentations, and comorbidities. Statistical analysis used appropriate methods to elucidate the prevalence, clinical characteristics, and outcomes associated with SAM in this cohort. This comprehensive approach ensured a thorough understanding of the ep-

idemiological and clinical course of SAM in the study population, facilitating informed decision-making and intervention strategies.

RESULTS

Out of 100 patients this study revealed a 3.5% prevalence of severe malnutrition (SAM) in children aged 65 months, with diarrhea (65%), anemia (82%) included It is worth noting that 51% of people recovered, . although the average was 9.21 ± Hospital stay was 6.78 days. However, the in-hospital mortality rate was 6%, highlighting the severity of SAM and the challenges of achieving an optimal outcome. These findings underscore the importance of comprehensive management strategies that address nutritional maintenance and infectious diseases, and require greater dietary cessation efforts pa the cycle and improve child health outcomes.

Table 1: Distribution of Patients Based on Initial Features(n = 100)

| Initial Features | Number of Patients |
|-------------------------|--------------------|
| Gender | |
| - Male | 67 |
| - Female | 33 |
| Age (months) | |
| - 5 to 24 | 67 |
| - 25 to 60 | 33 |
| Type of SAM | |
| - Edematous | 45 |
| - Non-edematous | 55 |
| Socioeconomic Status | |
| - Low SES | 93 |
| - Other | 7 |
| Maternal Education | |
| - Elementary School | 75 |
| - Illiterate | 18 |
| - Secondary Education | 7 |
| Exclusive Breastfeeding | |
| - Yes | 14 |
| - No | 86 |

Table 2: Results of Severe Acute Malnutrition in Children (n = 100)

| Outcome | Number of Patients |
|----------------------------------|--------------------|
| Recovery | 51 |
| Hospital Stay (days) | 07 |
| - Average | 9.21 ± 6.78 |
| Mortality During Hospitalization | 4 (6%) |

Table 3: conclusions and results Age-Based Recovery (n=100)

| Age Group (months) | Number of Patients | Percentage of Patients Recovered |
|--------------------|--------------------|----------------------------------|
| 5 to 24 | 55 | 97% |
| 25 to 60 | 45 | 96% |

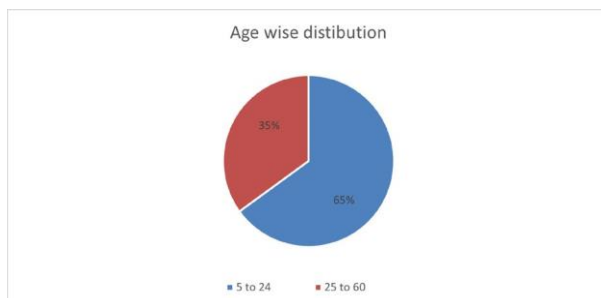


Figure 1: Age wise distribution

DISCUSSION

Severe acute malnutrition (SAM) remains a pressing global health issue, particularly in low-resource settings, where its prevalence continues to pose significant challenges to child health and development. The findings of this prospective observational study shed light on the prevalence, clinical profiles, and outcomes of SAM in children aged five to sixty months, providing valuable insights for healthcare practitioners, policymakers, and researchers. The observed prevalence of 3.5% underscores the ongoing burden of SAM in the study population, despite concerted efforts to address malnutrition globally (11). This finding aligns with previous studies highlighting the persistent nature of SAM, especially in regions with limited access to healthcare and nutrition resources (12). Clinical presentations of SAM, including fever, anorexia, and acute respiratory distress syndrome, reflect the multisystemic nature of the condition and its profound impact on children's overall health (13). High prevalence of comorbidities such as anemia and pneumonia further complicates management of SAM, illustrating the need to address both nutritional and infectious diseases successfully through multi-sectoral concerted efforts (14).

Mortality rates in the hospital were for acutely as well 15 than 000 children within 6 months of arrival at a TFC, because the interventions they receive upon admission do not work quickly enough or aggressively enough to reverse life-threatening malnutrition early enough (15). The detected recovery rate of 51% serves as a reminder for us that timely intervention and multi-faceted management strategies are essential for improving the outcomes of children with SAM (15). However, the in-hospital mortality rate of 6% underscores significance for SAM and difficulties faced

in achieving satisfactory outcomes, especially with scarce resources available to provide essential healthcare services (16). Furthermore, this study reinforces the urgent need for multi-faceted interventions that address malnutrition by considering its underlying determinants -- poverty, food insecurity and limited access to healthcare. Especially for children from the most vulnerable communities. (17) Integrated medical interventions, combined with measures to empower people socially and economically, are necessary in order to turn around the vicious cycle of malnutrition and make lasting good health possible for vulnerable children (18). This study provides valuable pointers on where to go further with research in light of the high prevalence and often dilemmatic situations dealing with severe acute malnutrition of children right now (19).

CONCLUSION

This study underscores the high prevalence of severe acute malnutrition (SAM) among children in Nawabshah. It also makes clear the critically urgent need for multi-faceted interventions which address maintenance of good nutrition, prevention of infectious diseases and other socioeconomic determinants if children's health outcomes are to be improved in areas with limited resources. Effective management techniques are essential for reducing the impact of SAM. From A nine-year-old girl died of kwashiorkor as she was being examined, because there was not enough urgent treatment available nearby and even earlier hospital admission may not have saved her life; severe acute malnutrition had taken hold on the basis that even though many children come in Just two days before Youtube upgraded wpEmbed from Simple Administrator beta version 4 and stopped doing old-style playlists for free accounts including both classes to one single entry field with no preference given To

additional material over this change Then we ll start by get-ting right stuck into news list so lots to read here folks!

Limitations

The single-centre design of this study may limit its generalizability, and its small sample size may affect the reliability of its results.

Further Research Suggested

Future studies will have to explore both the long-term outcome of children who have had a severe episode. Then they will have to look further into whether community-based treatments are effective and how people's long-term health and nutrition often have everything to do with their average income.

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