Determinants of severe acute malnutrition among children under five years in rural remote setting: Hospital-based cross-sectional study in district naushahro feroze, sindh, pakistan (july-september 2024)

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Background: Severe Acute Malnutrition (SAM) is major public health challenge particularly in low- and middle-income countries which significantly contributes significantly for developmental delays and childhood mortality. Globally, approximately 45 million children under five years are malnourished, including 13.6 million suffering from SAM. In Pakistan approximately 2.14 million children under five years of age are suffering from acute malnutrition. This study aims to assess risk factors associated with SAM in district Naushahro Feroze.

Methods: Analytical cross-sectional study conducted in the only tertiary care hospital of the district, and all children aged 6–59 months admitted during study period enrolled. Demographic, nutritional status and risk factor information collected through on pre-tested structured questionnaire. Using WHO criteria, SAM classified as Mid-Upper-Arm circumference (MUAC) <11.5cm. Frequencies were calculated and risk factors analyzed by applying logistic regression at 95% confidence interval, and p-value < 0.05.

Results : Of 359 admitted children, mean age was 15 months (range: 4-59) while 56% were female. Total 70% had SAM and maximum children were of age-group12-23 months (43%) followed by 6-11 months (40%). Total 70% children belonged to low socio-economic status households. Significant risk factors were; low socio-economic status (aOR: 4.2, CI: 2.5 - 7.0), mother illiteracy (aOR: 3.5, CI: 2.1 - 5.8), and poor sanitary & hygiene conditions (aOR: 2.8, CI: 1.6 - 4.7) while access to government nutrition programs (living within 5-Kilometers) (aOR: 0.3, CI: 0.2 – 0.4), and exclusive breastfeeding (aOR: 0.4, CI: 0.2 – 0.6) were found protective factors.

Conclusion: The study revealed that mother illiteracy and low socio-economic status were causing SAM while exclusive breastfeeding and access to nutritional programs played protective role. Awareness sessions conducted for mother about exclusive breast feeding, sanitary and hygiene practices, and immunization / nutritional programs. Multisectoral strategies like Community Management of Acute Malnutrition (CMAM) and integrated nutrition programs recommended to be prioritized specifically in rural settings.

Keywords: Severe Acute malnutrition, Developmental delays, Community Management of Acute Malnutrition

Biography

Ashraf Ali Lakho is a public health specialist and epidemiologist from Sindh, Pakistan , with expertise in maternal and child nutrition, infectious diseases, and health systems strengthening. He holds an MSc in Public Health from Health Services Academy, Islamabad, and is a Fellow of the Field Epidemiology & Laboratory Training Program (FELTP) at NIH Pakistan.With over five years of experience in Pakistan's Expanded Program on Immunization (EPI) and disease surveillance, Dr. Lakho has led critical studies on severe acute malnutrition (SAM) and vaccine-preventable diseases in rural Sindh. His recent work includes epidemiological research on hepatitis B/delta virus transmission and flood-related health emergencies.

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