

## Silent Childhood Killer: Stunting and Wasting

Aisha Sajid\*

Professor and Head Department of Pediatrics, Madinah Teaching Hospital/ University Medical & Dental College  
Faisalabad, The University of Faisalabad.

Correspondence: \*[draisha\\_tanvir@hotmail.com](mailto:draisha_tanvir@hotmail.com)

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Malnutrition is a silent but serious emergency in developing countries [1]. It accounts for nearly 5.2 million deaths per year under 5 years of age in developing countries [2]. Stunting and wasting are two different terms used to define the inadequate nutritional status of the child. Wasting is defined as low weight-for-height below 2 standard deviations according to the WHO growth standard median. It often indicates severe weight loss, which is recent, although it can persist for longer. Stunting is defined as low height-for-age below 2 standard deviations according to WHO growth standard median values. It occurs as a result of chronic or recurrent undernutrition. The term underweight is used in children who are low weight for their age. An underweight child may suffer from stunting, wasting or both [3]. Undernutrition adversely affects the child's physical growth and mental well-being.

Childhood stunting imposes serious immediate and long-term consequences, including increased morbidity and mortality during infancy, immunocompromised status leading to increased risk of life-threatening infections, and poor brain development and learning capacity [4]. As the physical and mental growth of the infant occurs at the highest rate during the first 1000 days of life, this period is taken the most critical phase in a child's life. Inadequate nutrition during this period is associated with sub-optimal brain development, which adversely affects cognitive development. That ultimately causes hindrance in educational achievement and adversely affects economic productivity in adulthood [5,6].

Furthermore, some stunted children experience rapid weight gain after 2 years and are at increased risk of becoming overweight or obese. They are also at higher risk of developing insulin resistance leading to diabetes, hypertension, dyslipidemia, lowered working capacity and unfavourable maternal reproductive outcomes in adulthood [7]. Thus, the suboptimal childhood nutritional status warrants the future of the whole nation.

Undernutrition is prevalent in all age groups of children in Pakistan [8,9]. According to the National Nutrition Survey (2018) of Pakistan, 40% of children under five years of

age were suffering from stunting, 17.7% were having wasting and nearly one-third of children were reported to be underweight (28.9%) [1]. Approximately half of the children under five are stunted in Pakistan, and one child out of 10 suffers from wasting [10].

Childhood stunting is usually neglected in Pakistan, and undernutrition is rarely regarded as an emergency due to a lack of awareness of the general population. They are not much concerned about their children's physical growth and stature. As a result, most of our kids are suffering from this silent killer. Poverty, large family size, food insecurities and poor socioeconomic status, wrong feeding practices, lack of hygienic measures, and poor sanitary conditions further add to the magnitude of this problem in Pakistani children [11]. Traditionally mothers are considered responsible and mainly involved in the daily care of children, including dietary intake, so they need to be more vigilant and well-informed.

On the other hand, low female literacy rates, young marriages, high birth rates with lack of birth spacing, and lack of women empowerment and involvement in decision-making are prevailing in our society and important factors responsible for child and maternal malnutrition. According to the published literature, maternal factors, including low maternal age and educational status, stay at the top while considering the improvement in a child's nutritional status [12,13]. Various studies have demonstrated the positive impact of maternal education and employment on the nutritional status of their kids [14].

The employment status of the mother adds to the woman's empowerment, her involvement in decision making and the income of the family, thus facilitating the provision of adequate nutrition to her children. Most of our population residing in rural, remote areas lack the basic knowledge about effective breastfeeding, weaning and dietary requirements according to different age groups. As we come across in our daily practice, nutritional stunting is a double-faced issue. Most of the parents lack not only basic awareness about the nutritional requirements but also are unaware of the fact that their children are suffering from nutritional deficiencies and

stunting. The need for improvement in pediatric nutritional status requires to be identified at a national level.

Concrete efforts must be made to sensitize the general population and create awareness among the masses regarding undernutrition, stunting and wasting. Effective government policies must be generated and implemented with multisector involvement, including the health sector, national social protection programs, and agriculture and education departments, to address the factors responsible for nutritional insufficiency in children. Parents and caregivers must be educated about the effective ways of breastfeeding, adequate weaning practices, supplemental feeding and improvement in hygienic conditions. In our rural areas, there is already an extensive existing system of lady health workers that can effectively promote awareness about adequate nutritional and feeding practices among the targeted population away from the basic healthcare facilities.

Electronic and print media like television, radio, social websites and networking can play a vital role. The doctors and paramedics affiliated with tertiary care hospitals must be well versed in the signs of wasting and stunting and various ways of prevention so that they can educate the caregivers and play their part in moving towards a healthy nation.

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