

Effects of nutrition on educational standards of school children of a developing country

Zubeida Mustafa

In the age of specialization we have become so focused on specific areas and issues that we fail to take a holistic approach to problems. The fact is that human life comprises several integrated sectors. The impact of one on another is profound and symbiotic. Hence effective solutions to various problems call for a comprehensive strategy. Here I shall take up two very important areas of a child's life that are closely interrelated though they are not treated as such by the policymakers. They are education and nutrition.

Both of these pose a major challenge to the people as well as the authorities in Third World countries. While education requires the government to provide facilities to enable children to enroll in school to study, nutrition is related to the health of a child without which education can prove to be a daunting task. A child who falls ill frequently has a high incidence of school absenteeism. That affects his education because irregularity in attendance causes her to miss her lessons and lowers her standards. While this is a phenomenon that is pretty visible, there is an insidious feature of children's health that has an impact on education which does not find general mention in literature on paediatric health or education issues.

This is the impact malnutrition and various deficiencies make on the cognitive and mental growth and development of a child. It actually affects her intelligence, memory and capacity to learn. While the side-effects of the deficiency of various vitamins and iodine on the physical health of children have been documented not much is known generally about the impact of malnutrition and micronutrient deficiency on the intelligence and mental capacities of a child.

This is significant considering the widespread prevalence of malnutrition in Pakistan. According to the National Nutrition Survey (2011) nearly 43.7 percent of all children under five years of age in Pakistan are severely or moderately stunted. The same survey found 15.1 percent

under-5 suffered from wasting and 31.5 percent were underweight.¹ There is a lot of regional disparity in and within the provinces.

Micro nutrient deficiencies have also been measured and stated to be high in children. Nearly 62 percent were anaemic, 43 percent were iron deficient, 54 percent had Vitamin A deficiency, 39 percent suffered from zinc deficiency and 40 percent had Vitamin D deficiency.¹

Apart from the impact of malnutrition on the physical health of the child we should also be concerned by its effect on the mental development of the under-five. It has now been established that the first thousand days provide a window of opportunity to change the future of a child for ever. This window opens at the time of conception and shuts on the second birthday of the child. If it is not availed of and the right nutrients, minerals and proteins are not provided it can cause irreversible damage.² Prof. Hans Biesalski of the University of Hohenheim, Stuttgart, clearly identifies these nutrients as zinc, iodine, proteins, vitamin A, and Iron as having a direct effect on development and growth. Their deficiency can lead to stunting which he links with developmental and psychological handicap.³ He categorically states, "The negative effects of malnutrition during a child's first 1000 days are far-reaching, influencing not only his or her physical, but also psychological and social development. Children who are affected will have difficulties at school, ranging from a higher rate of absenteeism to a lesser ability to absorb the material. When they finally reach adulthood, they will earn on an average 20 percent less than someone in a similar position who is not stunted."⁴ Chronic and severe iron deficiency negatively impacts the way the brain develops and hence human behaviour.

It is important that this dimension of education-cum-health of a child is recognized not just by parents but also educationists and health professionals. Awareness raising is a significant aspect of the solution of the problem. By providing information and understanding of the implications of malnutrition for the mental growth of a child, physicians can ensure that parents and educationists learn to adopt correct measures. It is

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Freelance journalist

Correspondence: Email: zubeidam2@gmail.com

surprising how little parents — even educated ones — know about the nutritional needs of a child. The rate of exclusive breastfeeding in the first six months in Pakistan (65 percent) is itself indicative of the need to motivate mothers.⁵

The next step is to arrange for the food that provides the nutrition that is needed. That is a bigger challenge especially in the under-privileged classes where poverty, more than ignorance, compounds the problem and hampers attempts to cultivate healthy eating habits. Many nutritious foods are costly and inaccessible to the poor.

It is now felt that intervention is needed to reduce malnutrition and this can be done by incorporating essential vitamins, minerals and whey proteins in a micronutrient powder (MNP), which can be supplied to mothers to sprinkle on or mix into food for children after the first six months of exclusive breastfeeding. There are foreign NGOs attempting to enter the market.⁶

Better still, indigenous food could be cooked by the mother herself for the baby. In this MNP and fortified

ingredients should be used. This should be low-cost and simple and the preparation be publicized step-by-step. The Oral Rehydration Salts (ORS) experience and its success shows that local and simple methods using low-cost ingredients can help.

References

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