

Life Cycle Approach to Health: Let us Lead

S SACHIDANANDA KAMATH

National President, Indian Academy of Pediatrics, 2015.

drsskamath@gmail.com

Human health and development is a dynamic process, and early intrauterine life conditions can influence a variety of adult outcomes, including lifestyle-related diseases, the process of aging, and geriatric morbidity. The life cycle approach to health is a concept that emphasizes on prevention and early intervention at every stage of life – intrauterine period, early childhood, adolescence, youth, middle age and old age. Outcome at one point in the life cycle might be a determinant for health elsewhere further in the cycle. It is also a holistic concept with an integrated methodology that should link the various policy support measures at every stage of the cycle. Specifically, from a pediatrician's perspective, the life cycle approach to child and adolescent development is a philosophy that encompasses all actions essential for preparing for future motherhood, joyful pregnancy, safe delivery, and optimal growth development that in turn should lead to responsible parenthood. This in essence involves caring for the most critical nine months of intrauterine growth, the vulnerable first six years of life and the most neglected adolescent period [1]. In the developing countries, including India, health inequalities are visible across different strata of society and different geographical regions. Health during childhood is determined by the health of the mother, which in turn is affected by the nutrition of adolescent girls. This concept also has adequate policy endorsement of Indian Academy of Pediatrics and Government of India.

The life cycle approach can be best understood by example of childhood malnutrition. The first 1000 days ranging from conception to the end of the second year of life is crucial for any intervention to ensure adequate nutrition and development, which will bring benefits throughout life [2]. Focusing on this period increases the child's chance of having a healthy and productive life in the future, and helps to break the inter-generational cycle of poverty. We also know that maternal nutrition is an important determinant of child malnutrition. Many children are born malnourished because their mothers are malnourished, highlighting the significance of nutrition

for women of childbearing age. The nutritional status of the women is a result of interactions among many risk factors like access to food, disempowerment, customs and traditions, nutritional demands of frequent pregnancies and lactation, and access to health services. Therefore, to tackle the issue of malnutrition, we need to have a life cycle approach – care during intrauterine life, the vulnerable first few years of life and the most neglected adolescent period.

UNICEF has adopted a life cycle approach to child development [3], and is of the opinion that greater attention given to the care, empowerment and protection of adolescents is the best way to break the intergenerational transmission of poverty and risk. For example, good quality education empowers children's lives as they gain the knowledge, skills and confidence to meet the global challenges. Educated girls are less likely to marry early or get pregnant as teenagers, and are more likely to have correct and comprehensive knowledge about health-related issues. They are more likely to have healthy children when they eventually become mothers.

Another scenario that explains life cycle approach is childhood onset of adult cardiovascular disease. Physically active lifestyle, including obesity reduction, avoidance of tobacco and lowering blood pressure, can positively affect the health of children and adolescents [4]. Childhood and adolescence has to be viewed as an opportune time to prevent the onset of certain risky lifestyle behaviors and promote healthy states. Pediatricians, who care for children and adolescents, can incorporate screening of adult cardiovascular disorders into their practice.

Pediatricians can play a vital role in the education of parents and other caregivers, and can act by using the concepts and recommendations in their professional practice. Pediatricians have to work together with other professionals in the development and dissemination of scientific knowledge to support health policies and practices. More importantly, they should also participate in the planning and implementation of community

interventions. A shift to primary prevention is warranted to solve the current health problems, and may demand pediatricians to move from the current curative care approach towards an integrated approach to child and adult health, and development.

REFERENCES

1. Nair MK, Mehta V. Life cycle approach to child development. *Indian Pediatr.* 2009;46 (Suppl):s7-11.
 2. Prentice AM, Ward KA, Goldberg GR, Jarjou LM, Moore SE, Fulford AJ, *et al.* Critical windows for nutritional interventions against stunting. *Am J Clin Nutr.* 2013;97:911-8.
 3. UNICEF. Adolescents and Youth. Lifecycle Approach. Available from: http://www.unicef.org/adolescence/index_73650.html. Accessed November 15, 2015.
 4. Catalano RF, Fagan AA, Gavin LE. Worldwide application of prevention science in adolescent health. *Lancet.* 2012;379:1653.
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