



Under- and Over-nutrition with Special Reference to the Significance of Developmental Plasticity in Understanding Obesity and Associated Morbidity in Developing Countries

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ABSTRACT This brief review deals with the prevalence of under-and over-nutrition with special reference to the significance of developmental plasticity during growth and development in understanding obesity that is associated with non-communicable chronic diseases (NCDs) in developing countries. Although undernutrition remains a major health problem in many developing countries, over-nutrition is also emerging because of rapid economic development and nutrition transition. The changing dietary patterns compounded by increasing urbanization and sedentary lifestyles are the key factors to increasing risks of the epidemic of obesity and NCDs. Consequently, the double burden of under- and over-nutrition is likely to exert considerable impact on the economy and health system in many developing countries. There is a need for the prevention and intervention of obesity and associated morbidity that may originate through developmental plasticity in response to the environmental quality during growth and development. Most nutrition programmes in developing countries pay more attention to alleviating undernutrition without much attention to monitor and prevent the epidemic of obesity. Researches are yet to generate more information on the prenatal and postnatal growth processes especially the determining mechanisms that are related to obesity and NCDs. Areas of further studies have been suggested, and it seems that developmental plasticity during growth and development is one of the important aspects concerning the development of the epidemic of obesity especially in developing countries.

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