



## Malnutrition in Women

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**ABSTRACT** Malnutrition results from imbalance between the needs of the body's and the intake of nutrients. In India, gender inequality in nutrition is present from infancy to adulthood. Women never reach their full growth potential due to nutritional deprivation. Malnutrition in women is related to poverty, lack of development, lack of awareness and illiteracy. In the present study, percentage wise malnourished females are 25.2% as compared to males (20.2%). A wide variety of development actions are needed to improve their food security and nutrition of women.

### INTRODUCTION

Eliminating hunger and malnutrition is one of the most fundamental challenges facing humanity (Lomborg 2004). Malnutrition and its associated disease conditions can be caused by eating too little, eating too much, or eating an unbalanced diet that lacks necessary nutrients. Under nutrition, defined as failure to consume adequate energy, protein, and micronutrients to meet basic requirements for body maintenance, growth, and development. Malnutrition is one of the most devastating problems worldwide and is inextricably linked with poverty. The scale of under nutrition has also been studied among other populations and age groups, such as pregnant and lactating women (Rouse 2003). This paper mainly focuses on malnutrition in women. The oppression of women socially and culturally means they have less access to everything, including food, resources, health care, community support and information. The problems arise from cultural, political and economic realities that must be addressed in tandem. However, one significant step should be taken to educate and to make them aware contribute to struggle against terrible problem of malnutrition. Malnutrition among women has long been recognized as a serious problem in India, but national-level data on levels and causes of malnutrition have been scarce.

### METHODOLOGY

The present epidemiological and biochemical study has been undertaken in the district Sangrur, Punjab (India). The samples survey has been undertaken from the area covered and 1000 subjects were selected randomly for questioning

regarding the different aspects of epidemiology. Out of these 1000 samples, 500 are from urban population and 500 from rural population

On the basis of WHO criteria for body mass index categories malnutrition among subjects can also calculated. In 19th century, Mathematician Lamber Adolphe Jacques Quetelet described the body mass index as a relation between body weight and stature in human (Quetelet 1836).

Body mass index (BMI) is used to estimate your best weight range for your health. It is calculated by dividing your weight in kilograms by your height in meters squared ( $m^2$ ). A WHO (1997) criterion was used to define the malnutrition and obesity: (a) Malnourished  $<18.50 \text{ kg}/m^2$  (b) Normal:  $19-24.9 \text{ kg}/m^2$  (c) Overweight:  $>25 \text{ kg}/m^2$ , (d) Pre-Obese:  $25-29.9 \text{ kg}/m^2$  (e) Class-I Obese:  $30-34.9 \text{ kg}/m^2$  (f) Class-II Obese:  $35-39.9 \text{ kg}/m^2$  (g) Class-III Obese:  $>40 \text{ kg}/m^2$ . The body mass index is a useful tool in both clinical and public health practice for assessing the nutritional status. In this paper, only malnutrition in women is discussed.

### RESULTS AND DISCUSSION

In the present study 20.2% males and 25.2% females were malnourished in the Sangrur district of Punjab, India. Value for BMI  $>30 \text{ kg}/m^2$  is 8.31% in females and 5.04% in males (Table 1). Most of the women were illiterate and housewives. Malnutrition refers to any disorder of nutrition-whether it is due to dietary deficiency, called under-nutrition, or to excess diet, called over-nutrition (Britannica Student Encyclopedia, 2005). Malnutrition worldwide includes a spectrum of nutrient-related disorders, deficiencies, and conditions such as intrauterine

**Table 1: Random study of males and females according to the body mass index based categories from the population of district Sangrur, Punjab (India) N =1000.**

Status of subjects	Male (n=555)	Female (n=445)
Malnourished n (%) subjects	112 (20.18)	112 (25.16)
Normal n (%) subjects	318 (57.29)	196 (44.04)
Preobese n (%) subjects	97 (17.47)	100 (22.47)
Obese n (%) subjects	28 (5.04)	37 (8.31)
BMI >30		

BMI: Body Mass Index, kg/m<sup>2</sup>

n: Number of subjects in each group ; N: Total number of subjects

growth retardation, protein-energy malnutrition, iodine deficiency disorders, vitamin A deficiency, iron-deficiency anemia, and overweight/obesity and other diet-related non communicable diseases (Ratzan et al. 2000). Risks of being underweight (BMI less than 20) may be malnourishment, compromised immune function, respiratory disease, tuberculosis (an infection of the lung), digestive (stomach) disease, cancer, osteoporosis etc.

Many factors have been associated with both forms of malnutrition of women in the literature. These include the socioeconomic (e.g., occupation, educational background and the standard of living); cultural (e.g., religion and caste); the demographic (e.g., age and marital status) and dietary characteristics (Griffiths and Bentley 2001; Monteiro et al. 2002, 2004a; Shukla et al. 2002; Shetty 2002; Radhakrishna and Ravi 2004; Radhakrishna et al. 2004; Roy et al. 2004). Body mass index is an accepted measure of chronic energy deficiency malnutrition. Under-nutrition remains the nutrition problem of greatest concern in developing countries (Martorell et al. 1998 and Tabak et al. 2000). The prevalence of malnutrition (includes both under-nutrition and over-nutrition) among women in Kerala is quite high (Ramesh 1996). Under nutrition remains the nutrition problem of greatest concern which is an important determinant of health and an important outcome of ill health. Differential treatment of girls and boys in terms of feeding practices and access to health care is among the factors responsible for higher female mortality. As a consequence of their lower status overall, women experience discrimination in the allocation of household

resources including food and access to health services.

Under nutrition and anemia among pregnant women and adolescent pregnancies are the main contributory factors for low birth weight babies. Intrauterine growth retardation (IUGR) during pregnancy is the main cause of low birth weight and nutritional anemia during pregnancy which is a major determinant of IUGR. An adolescent girl, who is not yet fully developed, gives birth to a low birth weight infant. Compared to a well nourished child, a mildly malnourished child has twice the risk of dying from common childhood diseases; moderately malnourished child has eight times at risk (Gupta 1999).

In developing countries indicates that malnourished individuals, that is, women with a Body Mass Index (BMI) below 18.5 kg/m<sup>2</sup>, show a progressive increase in mortality rates as well as increased in 1995, about one million adult deaths resulted from health problems exacerbated by over-nutrition, while half of it were associated with under-nutrition (WHO 1995). For social and biological reasons, women of the reproductive age are amongst the most vulnerable to malnutrition (UNACC/SCN 1992).

While malnutrition in India is prevalent among all segments of the population but poor nutrition among women begins in infancy and continues throughout their lifetimes. Women and girls are typically the last to eat in a family; thus, if there is not enough food they are the ones to suffer most. Children of illiterate mothers are three times as likely to be severely under-nourished as children of mothers with at least a high school education (Horowitz and Kishwar 1985; Chatterjee 1990; Desai 1994 and Zulfiqar et al. 2004).

The BMI can also be applied to define chronic energy deficiency/ underweight and overweight/obesity (Shetty and James 1994; Ferro-Luzzi et al. 1992). Underweight/CED is usually indicated by a BMI of less than 18.5 kg/m<sup>2</sup> and overweight and obese indicated by a BMI of more than 25.0 kg/m<sup>2</sup>. In the present study value of value of BMI >25 kg/m<sup>2</sup> is 30.8% in females and 22.5% in males. There are several studies on nutrition transition in Asia and the Pacific, as well as the developing world, in general (Popkin 1994; 1998; Popkin et al. 2001). In India, which is typically known for large incidence of undernutrition, significant proportions of overweight and obese now coexist with

the undernourished (IIPS and ORC Macro 2000) and there is some evidence of even emerging nutrition transition also (Shetty and James 1994; Griffiths and Bentley 2001; Shetty 2002; Shukla et al. 2002; Radhakrishna and Ravi 2004; Radhakrishna et al. 2004; Arnold et al. 2004).

Traditional foods meant for children, pregnant and lactating mothers are being forgotten and biscuits, bread, noodles, instant infant foods of very high cost are getting more popular. The value of traditional foods including coarse grains, sattu, khichadi, idli, dalia, matharies, laddoos etc need to be revived. These foods contribute fibre, antioxidant vitamins, Beta carotene, vitamin C and Folic acid, which help in preventing diet related chronic disorders like diabetes, hypertension and cancer etc. (Bansal and Mehra 1999). Adult malnutrition has received much less attention than that of child.

### CONCLUSION

It, therefore, can be concluded that the present study becomes representative study which shows the prevalence of gender difference in nutrition in the population of District Sangrur (Punjab).

India has a long history of activism for women's welfare and rights, which has increasingly focused on women's economic rights. A range of government programs have been launched to increase economic opportunity for women, although there appear to be no existing programs to address the cultural and traditional discrimination against women that leads to her hopeless conditions. Despite the magnitude of the problem, programs to improve their nutritional status did not receive a high priority. Only a few organizations have effective programs that address their nutritional and health needs. In addition to expanding the coverage of the healthcare system, less-traditional avenues need to be tapped to help the women to improve their nutritional status in the future. The findings of this study suggest that wide-ranging programs are needed to tackle malnourishment in women.

### RECOMMENDATIONS

BMI is an approximate measure of the best weight for health only. Below 18.5 indicates underweight and possibly malnourished. If BMI is slightly lower, this does not necessarily mean

they are underweight. In these instances it is important to consult a dietitian who will provide advice on the best weight to aim for. Women have different nutritional needs in different stages of their life. Much of this work should be done to improve women's nutritional status.

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