

# Teaching Health & Nutrition: Desired Teaching Learning & its Essentials

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## Abstract

Foundation of any nation depends on its healthy citizens which can be resources for nation's progress and development. Health is the most crucial element for one's optimum success and progress in any field. Health constitutes of all as physical health, mental health, emotional health and social health. The foundation of all dimensions of health is the physical health directly or indirectly. A healthy mind resides in a healthy body. Only a healthy mind can achieve optimum development of other dimensions of health as mental, emotional and social. Thus physical health rests in the centre of all, which largely depends on proper nutrition. So health and nutrition knowledge becomes an essential part for proper growth and development, which in turn attains all kind of learning, scholastic achievement and performances as higher attendance, better grades, better social relations, better skill development and better performances in curricular and co-curricular activities as well as optimum physical and mental performances at work place. Hence health and nutrition teaching is as crucial as other subjects in curriculum. We see at pre-primary and primary level of education some emphasis is given to health and nutrition of students but at higher level it is totally neglected, while it is equally important for young adults or any stage of life as for the children. And through higher education the health and nutrition education can be imparted in a significant way for both the students as well as the community. Seeing the level of malnutrition various government and non-government agencies are striving for improvement of community health and nutrition and they require the efforts of educational system for reaching the goal of healthy nation. This paper aims to draw the focus of teachers, students and educational administrators to importance of health, nutrition and some strategies to integrate it in higher education.

**Key terms:** Health, Nutrition, Desired strategies to teach health and nutrition through higher education

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## Introduction

The global Nutrition Report (2017) revealed that malnutrition, anaemia and obesity are posing huge health challenges to India. The report said that India is facing serious problem of under nutrition and obesity leading to various health, social and economic problems. The report found the vast majority (about 88%) of countries studied face a serious burden of two or three of these forms of malnutrition. As far as India is concerned, the numbers are disappointing. About 38 per cent of the children under five are affected by stunting and about 21 per cent of children under 5 have been defined as 'wasted' or 'severely wasted' –which means that they do not weigh enough for their height. Moreover, 51 per cent of the women of reproductive age suffer from anaemia and more than 22 per cent of adult women are overweight. The percentage of overweight men in the country is slightly lower and stands at 16 per cent of adult men. The Global Nutrition Report 2017 concluded that the five core areas for development which nutrition can contribute to and also benefit from are sustainable food production, infrastructure, health systems, equity and inclusion and peace and stability.

Another report of ASSOCHAM -EY (2017) also said that India has the largest number of malnourished children in the world. This report said that India has the 50 % of malnourished children of in the world and the country needs to frame the policies focusing on reducing health and social inequities. Report also revealed that urban India is facing the challenge of over nutrition. India ranked as the third most obese nation in the world after US and China and also the diabetes capital of the world, with about 69.2 million people living with it as per the 2015 data by World Health Organization, said the report. According to the findings of the report India continues to consume non-nutritious, non-balanced food either in the form of under nutrition, over nutrition or micronutrient deficiencies.

India is the country which has the highest no. of adolescents in the world with 253.2 million adolescents, which comprises 21% of world's total population. WHO has defined adolescence as a period of age 10 to 19 years. But it is very sad that a large proportion of India's adolescents -56 percent of girls and 30 percent of boys are anaemic. Anaemia among adolescents adversely affects these young people's growth, resistance to infections, cognitive development and work productivity.

According to report of WHO report on adolescent nutrition (2006) a large percentage of adolescents in the South East Asian Region is suffering from nutritional deficiencies. Dietary intake with respect to adequate availability of food in terms of quantity and quality (particularly, the mean caloric intake), ability to digest, absorb and utilize food and the social discriminations against girls can greatly affect the adequate nutrition of adolescents. Studies in India and Bangladesh have shown deficiencies in the intake of all nutrients, particularly iron, calcium, vitamin A and vitamin C. The reported reasons are mainly the low educational level of parents and low family income. Studies conducted in different countries in the Region, reveal that nutritional deprivation affects almost all growth parameters and final adult body size resulting in thinness and stunting. However, nutritional status of both boys and girls improved with age, showing that the effect of malnutrition is more pronounced at the time of peak growth.

Obesity amongst adolescents is responsible for carrying weight-related risks like cardiovascular diseases into adulthood.

The current and future prospects of adolescent and youth population, as well as diversity, provides denominators

for program planning .It is up to us to take cognizance of the huge size and invest properly for the future development of our nation. Improving Adolescent Health is an emerging area for India to invest in. UNICEF, with its mandate of focusing on the first two decades of life, has been actively supporting the Indian government at national and state level in developing platforms for adolescent-friendly health services. For this regard the Ministry of Health and Family Welfare has launched National Adolescent Health Strategy in 2014 with the support of UNFPA (United Nations Population Fund) to provide health, information and services to fulfil the needs of adolescents, including girls and marginalized groups.

Apart from this to combat the problem of health and malnutrition and meet the goal of sustainable development by 2030 government of India is striving hard continuously. Government approved The National Health Policy 2017 with the goal to achieve the highest possible level of good health and wellbeing for Indians through a preventive and promotive healthcare orientation in all developmental policies and to achieve universal access to good quality health care services without anyone having to face financial hardship as a consequence. Government has also launched National Nutrition Mission at Jhunjhunu, Rajasthan on March 8, 2018 with target to reduce under-nutrition and low birth weight by 2% per annum and bring down anaemia among young children, women and adolescent girls by 3% per year as well as to reduce stunting.

The various national and international organizations are striving to reduce the health issues and malnutrition across the globe through funding, policies, plans and programs. There are various plans and scheme which are aiming to this issue directly or indirectly. Government is running various health and nutritional improvement schemes as providing subsidized food items to people living below poverty lines, various interventional programs as mid-day meal program for school children under age 6-14 years, Special Nutrition program (SNP) to provide food to children of age group 1-6 living in tribal areas and urban slums, Integrated Child Development Services (ICDS) to improve the health and nutritional status of children in the age group 0-6 years with collaboration of UNICEF. But we can see most of the schemes, policies and efforts are focusing only the health and nutrition issues in childhood phase, which is definitely important as it lays the foundation of future life but the same issues in later years of age i.e. in adolescence is equally critical as adolescence is that period of transition of life in which maximum or optimum changes or growth and development in different aspects as physical, intellectual, psychological and behaviour occurs. Steady physical growth and psychological development causes poor eating habits in nutritionally vulnerable young adults and blocks the fulfilment of their necessary dietary requirements. In adolescent age students come out from the caring boundaries of their parents, elders and family and start a different life with shouldering lots of different responsibilities of their studies, career and other personal life, which poses them to unhealthy dietary patterns such as dieting, meal skipping, eating outside home, eating fast foods and snacks. In current scenario we see due to lack of proper nutrition knowledge, lack of supportive environment, lack of policies integrating nutrition education in general education, various personal and career related stress, lack of time and vast variety of responsibilities as well as other factors eg.- peers influence, media and community influence also bringing drastic changes in dietary patterns and nutritional status of these young adults. Poor and unhealthy dietary

habits is a major concern among college students who are in their transition phase from school to university life.

And these all interrelated factors contribute to the various health and nutrition related issues and problems and poses serious degenerative diseases and deficiencies among the young adults in their later life, which reduces their performance and productivity in all walks of their life. Poor health and nutritional status of adolescents will seriously affect the health and survival of future generations as well as the progress of nation.

Government is striving since long through various nationally and internationally funded schemes and programs to tackle the problem of health issues and malnutrition among its people. Apart from these intervention programs and schemes Government, various NGOs and private organizations also doing endeavours to tackle the same problem through spreading awareness related to health and nutrition through educational, awareness interventions. But to make people aware and provide subsidies and foods is not enough in bringing holistic and sustainable growth and development for a country. For achieving the goal of good health and good nutritional status among the citizens a nation requires to educate the young adults and develop appropriate dietary behaviour in them through a collaborative approach which collaborate the policies, education system and the general public together. As health and education are interlinked, educational institutions are increasingly called upon to target health concerns in their student population by encouraging healthy lifestyles with a view to prevent chronic diseases and improve health and nutritional status. The basic idea to this is that appropriate health practices can and should be integrated during childhood and maintained throughout life through higher education. Educational institutions are the organizations which reach to a large segment of the population for a large period of time, no other organization can have this much of continuous and intense contact and influence on adolescents during the early years of their life.

**Review of related studies:** - Researches on health and nutritional status of college students show high social risk and higher level of prevalence of malnutrition among adolescents and identified high percentage of faulty dietary intakes and poor lifestyle habits as some of the determinants of malnutrition among adolescents and emphasised on need for nutritional assessment programs for managing burden of under nutrition and poor health status of adolescents (Kanimozhy.K., Vishnuprasad.R. & Singh.Z.(2014) ,Datta.S., Chattopadhyay.S.,Das.A.S. & Mitra. C.(2015) ).

Many researches have explored faulty eating practices among adolescents and focussed on need to provide nutrition education on healthy food habits and lifestyles which can help college students bridge the gap between knowledge and practice of dietary pattern (Yadav.H., Naidu.S.,Balinga. S.& Mallapur.M.2015)

Various researches evidence in improving knowledge, attitude, and practices related to nutritional status and health of people, communities, teachers, parents and students through educational interventions.

**Devadas** (1986) studied nutrition education in India and its impact on knowledge, behaviour and health status of

students and found nutrition education effective on health and nutrition status of students.

**Poddar , Hosiq , Anderson , Nickols & Duncan** (2010), examined web based nutrition education intervention and found it effective in improving self-efficacy and self- regulation related to increase dairy intake in college students.

**Rathi**(2017) criticized the current Indian secondary school curriculum for its failure to deliver relevant skill-based food and nutrition education for adolescents (Food and nutrition education in Indian secondary schools).

**Salle & Sanetti** (2016) ,found implications of student health problems on achievement and engagement and explored that healthy students were better learners.

**Lua & Elena** (2012), reviewed the impact of nutrition education interventions on the dietary habits of college students in developed nation, a variety of outcomes reported across the interventions studied, encouraging and positive results with improved health outcomes demonstrated in most studies. The review shown that despite several methodological limitations, significant and beneficial changes in dietary habits was found for college students after intervention of nutrition intervention via various techniques. In particular, nutrition education and its combination with supplement provision appeared to be the best methods for enhancing students' eating habits and promoting healthier diets and lifestyles.

As reviews suggest positive effect of educational intervention on health and nutritional status and nutritional practices many researchers tried to develop different educational materials , programs modules and computer tailored and web based health and nutrition education to improve health and nutrition knowledge ,attitude and practices among pregnant mothers, lactating mothers, adolescents, parents, teachers and students and found it effective ( **Romeike , Lechner , de Vries , & Oenema** (2016), **Springvloet , Lechner , de Vries , Candel & Oenema** (2015), **Abbasi, Maryam, Pourali, Mohamadi & Rajaeefard** (2013),**Poddar , Hosiq , Anderson , Nickols & Duncan** (2010))

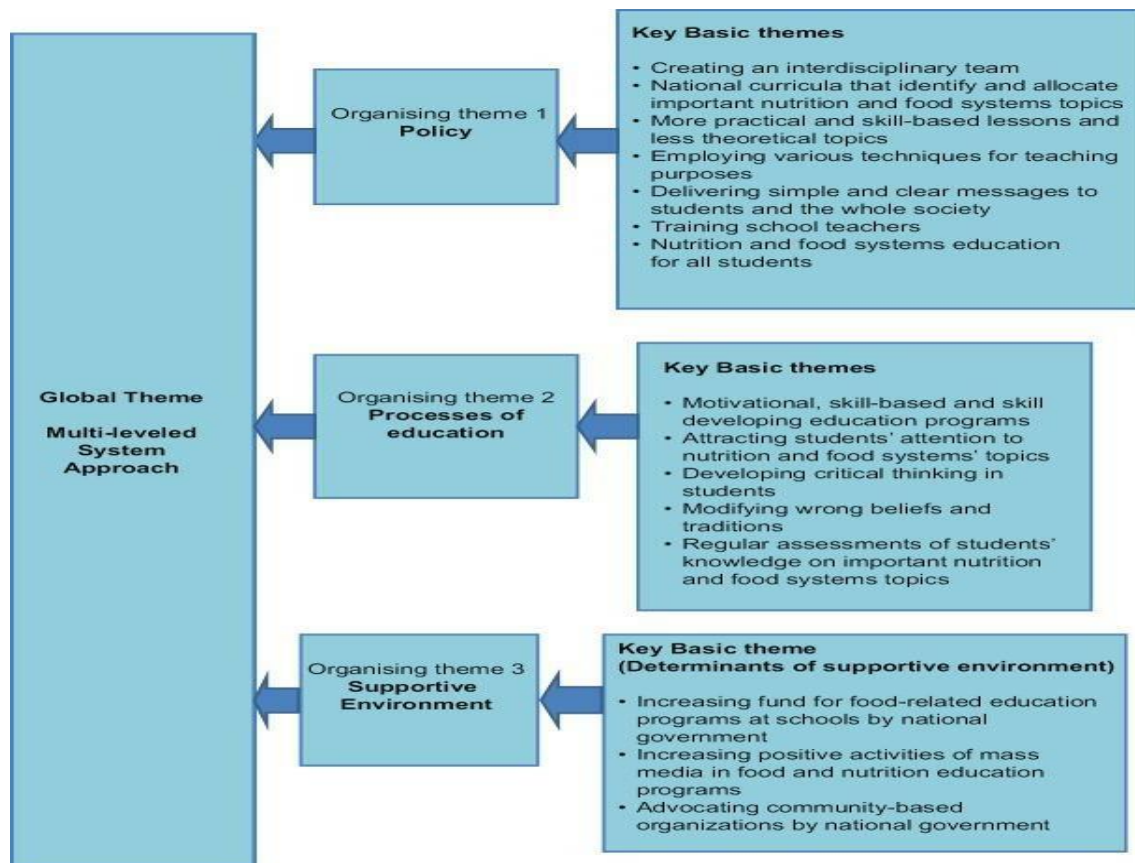
**Rai** (2017) suggested in his article- India badly needs public health education that there is need to introduce undergraduate and degree programs in public health across local college and universities in India to successfully meet the health challenges posed by rapid economic growth.

### **Strategies or ways to teach health and nutrition and its essentials: -**

- ∑ Health and nutrition policies should be integrated in educational policies and curriculum.
- ∑ At higher level, the health & nutrition topics should be taught integrating it with other subjects in curricula not separately or in isolation.
- ∑ Approach that is more practical should be followed for teaching health & nutrition instead of more theoretical approach.
- ∑ Educational institutions should provide healthy, supportive and promotive environment through healthy practices and facilities of canteens and mess for better learning and promotion of health and nutrition.

- ∑ Teachers should follow more student- centred methods for health and nutrition education. For this, they should first analyse the actual needs of the students and assess the nutritional status of the students and attitude towards the same.
- ∑ Teachers should take help of seminars, workshops, debates, quizzes and discussions on health & nutrition topics and issues instead of using lecture method only.
- ∑ Teachers should themselves be aware of authentic and appropriate sources for accurate knowledge on health and nutrition as magazines, journals and websites and should tell about the sources to their students.
- ∑ Educational institutions should provide supportive environment for health and nutrition by scheduling appropriate time for lunch breaks, games, physical and recreational activities.
- ∑ Teachers should teach the students about the general food systems and their nutrients, and do not more emphasize on the scientific aspects of chemical nature and structures of nutrients.
- ∑ Teachers should send the students on visits to farms and food production industries and demonstrate the process of production of food items with their benefits and harms.
- ∑ Teachers should tell the students about various cooking methods with their effects on nutritional values of the items.
- ∑ Teachers should provide practical training to the students to assess their own health and nutritional status and make them aware and conscious for their own health and fitness.
- ∑ Educational institutions should organize expert's visits and lectures for health and nutrition education.
- ∑ Teachers should provide practical knowledge and skills of preventive and curative measures for health and nutrition.
- ∑ Educational institutions should involve the parents, family, and community members along with the students for providing health and nutrition related knowledge and skills.

As the ways or strategies are recommended for teaching health- nutrition and its essentials, **Sadegholvad. S., Yeatman.H., Omidvar.N., Parrish.A.M., & Worsley.A.,(2016)** have also identified different ways and strategies for enhancing nutrition knowledge of college students by interviewing health, food and nutrition experts which can be employed globally for improving knowledge of nutrition for better health among the college students and organized it in the form of following **multileveled systems approach:**



(Multileveled System Approach for enhancing nutrition knowledge of college students.)

**Conclusion:** Thenutrition in womb and childhood years lays the foundation of adequate growth and development of individual, and is followed during adolescence. Nutritional requirements of adolescents in any nation is prerequisite for the progress and development of the nation and wellbeing of any society as they are the future generation. According to WHO report on adolescent nutrition (2006) in SEAR, a large number of adolescents are suffering from chronic malnutrition and anaemia, which impacts adversely their health and development. High rate of female malnutrition contributes to increased morbidity and mortality associated with pregnancy and delivery and also results in increased risk of low birth weight of babies. This leads to intergenerational malnutrition cycle and deteriorates the generations of nation which will be the workforce of the nation. A healthy workforce is a mandate for development of any nation. Considering the fact, improvement of the health and nutritional status of the population has always been given high priority. But in most developing countries, nutrition initiatives have been focusing on children and women, thus neglecting adolescents. Addressing the nutrition needs of adolescents could be an important step towards breaking the vicious cycle of intergenerational malnutrition, chronic diseases and poverty. Thus in this regard we need to follow a collaborative approach which collaborate policies appropriate for health and nutrition integrating it in education, efforts of educational institutions for spreading nutrition knowledge and improving people's attitude and behaviour, health professionals, dieticians and the general public to achieve the goal of a healthy nation with healthy citizens. Educational institutes can play a vital role since childhood to

adulthood as they are the institution stay in contact with the student for maximum years of their life after their home.

So they can help students by providing right kind of nutrition knowledge, developing right attitude for health and nutrition and encouraging them for practicing appropriate behaviour by providing a supportive and guiding environment. By providing sufficient and accurate health and nutrition education, providing nutrition interventions, managing seminars and workshops, providing health and nutrition projects and following quiz, discussions and debate on health and nutrition topics and by choosing the appropriate tools, techniques and methods for such topics teachers and educational institutions can help their students for improving their own health as well as making their community aware of the same, and this way the school children, young adults and adults all can better shoulder the responsibility of their own health and health of their families, which will result in development of a healthy nation that will be efficient enough to sustain and compete at global level.

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