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Integration of Health Education in the Economics Curriculum

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Abstract:

A healthy habit is an important input in the holistic growth of the children. It is determined by various factors like biological, social and economic. At the same time, it has an important impact on the enrolment and retention of any student in the school. An unwell child often tends to miss her class which later makes the lesson difficult for her to understand. Good health helps in generating skilled workforce for an economy, enhances employment opportunity for an individual and ensures prosperity of the nation.

National curriculum Framework (NCF 2005) recommends physical education and yoga for the physical, social, emotional and mental development of the child. The paper studies the relevance of integrating health education in the economics curriculum. The relationship between the two domains can be analyzed through causal pathways that underlie healthy life and prosperous nations.

India is presently facing the health challenge with respect to children belonging to pre-primary stage to higher secondary stage. The government has taken several initiatives like provision of mid-day meal programme, compulsory organization of sports in the school and so on. The study will look into the textbooks of upper primary, secondary and higher secondary stage and analyze the effort made to address this issues for young learners. The paper has been divided into three section. The first section outlines the importance of good health for school children. The second part includes the views of prominent economist and describes the relevance of health education in the various policy documents. Last section discusses and analyses the integration of health education in the economics textbooks.

Keywords: Health, Economics Curriculum

1. Introduction

Good health is a basic need for healthy living. There is a need to sensitize the learners towards healthy habits since the early age itself. In this connection a study is conducted to understand various health problems specific to the children. The causes of these problems are not only biological but have a strong linkage with the social and environmental surroundings (NCF 2005). Awareness about health can promote healthy life among individual being. The state is held responsible for ensuring various health infrastructures like hospitals, doctors, medicines to its people. The study also tries to analyze the role of public or private sector towards the promotion of health.

On analyzing the school curriculum, it has been found that there is no separate paper on health in the school curriculum. Health education can be integrated in the school subject because the teaching - learning of school subjects carries message for the large number of young learners. It plays a significant role in the enrolment of the student, retention of student in school and completion of ten years of schooling. Different concerns of health provide a critical input for the healthy growth of the child.

The importance of the health for the child can be reinforced through its integration with the school subjects. Economics is a very popular subject among the school students. In the year 2002, 38 lakhs students have opted for economics at the higher secondary stage across the country. Effort has been made in the textbook to familiarize the learners with the different perspectives of economic problems. Health being one such sector, its integration within the economics curriculum, can be helpful in sensitizing the learners towards its multifaceted concerns.

Economics as per the guidelines of National Curriculum Framework (NCF 2005) has been introduced at the upper primary stage since class VI. The integration of content on heath has been age specific and can be transacted with a comprehensive approach in the classroom. At the secondary stage topics focus upon nature of ownership, utilization of resources, inequalities existing in the society etc., emphasizing upon the normative concerns. Learners are familiarized with the analysis of economic policy. Health education does not merely talk about the prevalence of disease, their spread but also includes remedial measures to check its spread. The subject includes practical aspect and its transaction necessitates an innovative approach.

2. Research Methodology

The investigator made a field visit to the school. There was also discussion with the teacher while imparting them the training in a particular course. The textbook of social sciences meant for the learners of upper primary stage to secondary stage was reviewed. At the higher secondary stage economics textbook meant for the elective course was reviewed.

2.1. Need of the Study

Field visit to the school and interaction with the practicing school teachers revealed that healthy students do better than the sick students. They are regular in the classroom and respond effectively to the queries raised by the teachers. The study will be helpful for the parents, teachers, students and policy maker to promote health education. It would be effective in framing education policies, and further integrating it in the economics curriculum. The study aims to promote health education in the public domain particularly among the school students. The subject is interdisciplinary in nature so its inclusion will be helpful in improving educational and health outcomes. The students from the upper primary stage can be made aware of the harmful impact of consumption of tobacco and alcohol. They can be sensitized towards the nutritious component of food for healthy living. Measures can be suggested for the promotion of healthy living.

2.3. Table 1: Enrolment in Primary, Upper Primary and Elementary Education (2005-2006 to 2013-2014)

Data has been based on report published by NUEPA on Education for All, towards quality with equity, India. Data has been shown in million.

	Boys	Girls	Total
2005-06	28.9	23.3	52.2
2006-07	29.8	24.6	54.4
2007-08	31.0	26.2	57.2
2008-09	29.4	26.0	55.4
2009-10	31.8	27.6	59.4
2010-11	32.8	29.3	62.1
2011-12	31.8	30.1	61.9
2012-13	33.2	31.7	64.9
2013-14	34.2	32.3	66.5

Table 1: Upper primary stage (VI-VIII)

The following data reveals that enrollment of boys are more than the girls at the upper primary stage. Sensitization of young learners at this stage on various issues related to health will be beneficial for the country at large. In addition to upper primary stage students enrolled in secondary stage and higher secondary stage also needs to be sensitized.

3.1. Views of Prominent Economists

Thomas Robert Malthus (1766-1834) in his pamphlet 'An essay on the principle of population as its affects the future improvement of society' pointed out that the growth of the population is linked with the availability of food. He said population when allowed to increase, increases in a geometrical ratio. The food availability or the supply of food increases in an arithmetic ratio. He said that burgeoning growth of population would lead to chaos in the absence of proportionate increase in food supply. He argued that population growth can be curbed by natural calamity such as flood; draught or preventive measures be adopted to check the growth of population.

Adam Smith, the father of Economics authored book 'An *Inquiry into the nature and causes of the wealth of the nation' and 'The theory of moral sentiment'* suggested that government should contribute in social sector for private sector may not give as much importance to this sector. Health being a component in social sector needs to be looked after by the government.

Martein Feldstein made a positive contribution in the health economics. His major work includes 'Economic analysis for health service efficiency', 'Health care economics', and 'Hospital costs and health insurance'.

There are other prominent economists who have made effective contribution towards the promotion of health. The infusion of health component in economics will serve the community at large and promote quality life. As pointed by economist that resources are scarce and the same resources have an alternative use. Resources to promote healthy life are also scarce. Therefore, choices have to be made for prioritizing the allocation of scarce resources for the promotion of healthy life.

3.2. Integration of Health Education in Various Policy Documents on Education

Health education has been highlighted in various policy documents for it lays the foundation for human development. It adds to the advantage in multifarious ways for it serves to reduce poverty by generating employment in its sector. It also works towards eliminating inequality in the society.

In a policy document on 'The report of secondary education commission, 1952 includes a section on the physical welfare of students where importance of health education has been discussed. The need for health education had been highlighted during the pre-independence India for two main reasons. A large number of people volunteered to join military service. They were found unfit for the military service. It was also realized that increase in the number of physically handicapped and those with poor health would add to

the state exchequer and reduce their contribution in terms of economic value in national income and restrain them from performing to their optimum efficiency. Health education had been prioritized for it helped to make the youth of the country who can help in contributing towards the welfare.

Medical examination has been recommended for all students since the earlyyears for they can help in physical development. The school was made responsible for looking after the health of the students so that they can be benefitted from the education. There should be regular health check in the school. Early diagnosis of the problems can be helpful in instantly working on the ailments. Community support was recommended in the day to day functioning of the school. The importance of sanitation for retaining the health of the student was advocated. The report also recommended including the component of health in a teacher training programme.

3.3. The Report of the Education Commission 1964-66 'Education and National Development'

It was pointed that there has been tendency to lay the emphasis upon the value of physical education and ignore its educational values. The report highlighted that health education contributes not only to physical fitness but also to physical efficacy, mental alertness and development of certain qualities like 'perseverance of team spirit, leadership, obedience to rules, and moderation in victory and balance in defeat'. The physical education programme should be devised keeping the interest and capacity of the person. They will then be helpful in achieving the desirable outcomes, which will vary among the students. The activities developed for each child should promote a sense of personal worth and pride. 'A sense of sharing responsibility in a spirit of democratic cooperation can be cultivated among the students from experience on playground and individual's participation in gymnasium'.

The programme offered should not stand isolated rather supplement other programme of education. The activities advocated in the programme should not be duplicated. It should be affordable and accessible to all. The suggested activities should be age specific so that the students do not feel strenuous while performing the activities.

At the very young stage the child is psychologically and physically immature to handle formal and vigorous nature of activities. The syllabus at the preprimary stage can be based on 'education through movement' where there is a focus upon basic skills such as walking, running, jogging and throwing light bodies.

As the child grows up physical education include component of more challenging activities and can be allowed to participate in various sports, health promoting activities in a standard form.

The report recommends different activities for boys and girls. In the upper primary stage, the girls can be allowed to participate in rhythmic activities like badminton, throw ball while boys can be given training in vigorous activities such as basketball, net ball and hockey.

The national policy of education 1968 marked a significant step in the history of education after independence. It laid stress on the need for radical reconstruction of education system, to improve the quality of education at all stages. Special emphasis was given to the teaching learning of science and technology. The policy also gave importance to the inculcation of moral values and established a closer relationship between education and life of the people.

In a national planning on education 1986, health planning and health service management were given importance. It was believed that the awareness regarding this sector can be imparted through education. The policy advocated the training of appropriate categories of manpower through health related vocational courses. Health education at primary and middle level should include the commitment of the individual to family and community. Vocational courses in health can be provided at the plus two stage of higher education. This course will be at par with the vocational courses based on agriculture, marketing, social service etc. The vocational education will give priority to development of attitudes, knowledge and skills for entrepreneurship and to be engaged in productive activities.

3.4. National Curriculum for Elementary and Secondary Education- A Framework -1988

Here health and physical education and sports have been considered as an integral part of the learning process. It was advocated that awareness regarding physical health should be merged with mental and emotional health. The policy desired to sensitize the learners towards the desirable understanding of nutrition health and sanitation so as to improve the health status of family and community.

The physical education provided in school should aim at developing health strength and fitness of body. There should be focus on neuro muscular coordination, emotional health and healthy community living. The syllabus of the health and physical education should focus on healthy living and also include some aspect of problem suffered by the children in the upper primary stage, secondary stage and higher secondary stage. Yoga too was given importance in the health education.

The policy recommended stage wise activities for the learners. At the preprimary stage the focus will be on inculcating the habit of personal hygiene, neuromuscular coordination, emotional health and healthy community living. At the upper primary stage, vigorous developmental exercises were advocated like rhythmic gymnasium calisthenics, athletics aquatics judo, yoga, drill and marching camping and various team games. In the secondary stage students undergoes rapid acceleration of growth and changes in appearance and functions of the body in combination with the hormonal changes associated with the puberty. Guidance and counseling has been recommended at this stage to facilitate the adjustment and growth of children.

National Curriculum Framework (NCF 2005) suggested that children's learning in the school should be linked to the outside life also. Rote memorization has been discouraged and children have been encouraged to reflect and apply their learning in today's life. The policy advocated age specific activities. In addition, there should be inclusion of health component in environmental studies, language,

social sciences, sciences and physical education. Teacher preparedness needs to be addressed through pre service and in service training programme for all teachers.

4.1. Integration of Health in the Economics Curriculum

Economics has been introduced as a component of social sciences. The present study will review the textbook meant for class VII, IX and XI. In class VII, the content of economics and political science has been clubbed in one textbook entitled *social and political life*. Here health has been explained as 'capacity to remain free from illness and injuries'. Health is not limited to only diseases. There has been discussion on the situations which promote healthy life like availability of clean drinking water, pollution free environment. Houses have been shown in cramped conditions in the absence of basic facilities along with inadequate food, which are likely to cause illness.

There is a reference to the health service existing both in private sectors and public sectors. The topic mentions that our constitution holds that it is the responsibility of the Government to provide health care facilities to all. Regarding public sectors, it has been mentioned that government raises money through the tax and spend it on services such as defense, judicial system, police, health care and so on.

Government has increased its expenditure on social services from 6.8 percent in 2008-09 to 7.2 percent in 2013-14. Expenditure on health has increased 1.3 percent to 1.4 percent.

There is also a mention about 'chain of health centers and hospitals' run by Government in both rural areas and urban areas. In rural areas there are (PHC) primary health centres, district hospital and wherein urban areas have 'specialised Government hospitals'. The difference between the facilities available in the urban and rural areas brings forth superiority of hospitals located in urban areas over those in rural areas. This means the survival rate of patient would be high in urban areas in comparison to rural areas. The disparities are prominent with the discrimination against the women and killing of female feticides.

The textbook includes the story of Aman and Ranjan in the form of storyboard where the two friends discuss the difference between private hospital and public hospital. Aman and Ranjan have been diagnosed of the same ailment but visits different hospitals. Hospital in the private sector has been expensive and had the look of a five star. On reaching the hospital the boy had to pay Rs. 500 at the reception centre for registration. The doctor on diagnosing the case prescribed the tablets and rest to him. Hospital in the government sector was cheap but the patient had to stand in a long queue twice and the test results came after three days. Treatment in the Government hospital can be afforded by anyone. In private hospital the treatment is very expensive. At times, the doctors prescribe unnecessary medicines, infections or saline bottles when tablets and simple medicines can suffice for the ailment. The text book, thus, recommends that Government should come forward to provide quality health care facilities to more and more of its citizens.

The textbook includes a case study of Kerala when in 1996 40 percent of the entire state budget was given to the panchayats. After which there was improvement in the health centres although the problems like shortage of medicines, hospital beds persisted.

Another example was sighted from Costa Rica in South America. The country is considered as 'health countries'. The country took an important decision to cut the money on defence and focus only on health and basic needs of the people. The country now focuses upon problems like drinking water, sanitation, nutrition and housing. The text also suggests that health education is very important and knowledge about health is an essential part of the people at all levels. There is also a mention about the medical tourism.

In class IX economics textbooks there is a chapter on 'people as resource'. Population has been explained as an asset for the economy for it contributes to the production of goods and services. When the existing 'human resource' is further developed by becoming more educated and healthy it assists in human capital formation in similar way as physical capital formation.

The chapter includes the case study of two boys Sakal and Vilas. Vilas is unhealthy boy who suffers from arthritis. Due to poverty his mother cannot take him to the doctor. He looks after his younger brother Mohan and later took to the job of selling fish at meager income. Sakal too belonged to similar background as Vilas. His parent gave him moral support so that he could complete his studies. He passed a vocational course in computer and later joined a software industry.

Education and skill are major determinant of one's earning in the market. 85 percent of the populations are working in the informal sector. Most of the women are employed in the informal sector. This sector is characterized by the irregular and low income. There is an absence of basic facilities like maternity and child care.

State	Women per 1000 men
Kerala	1084
Chhattisgarh	991
Tamil Nadu	996
Andhra Pradesh	993
Orissa	979
Himachal Pradesh	972
Jharkhand	948
Bihar	918
Haryana	819

Table 2

Kerala has the highest percentage of women per thousand men and Haryana has the lowest survival rate of women. Millennium development goals, thus, aim to promote gender equality and empower women, reduce child mortality and improve maternal health.

The chapter mentions that the quality of population depends upon the literacy rate and health of a person. Illiterate and unhealthy person are liability for the economy. The importance of health has been highlighted by raising a question 'whether anyone would like to employ an unhealthy people?' There is also mention about national policy which talks about family welfare, rich nutrition for under privileged section of the population

There is a data on increase in life expectancy to 66 years. Infant mortality rate came down from 147 in 1951 to 42 in 2012. Birth rates have dropped to 22 and death rates to 7 within the same duration of time. This data on longevity and birth rate and death rate indicates an improvement in the health facilities. It also speaks of availability of medicines at an affordable rate. This is not adequate for United Nations Human Development Report 2013 indicates India is included among medium human development category and ranks 134 among countries including China, Egypt, Indonesia, South Africa and Vietnam.

Countries	Years
India	66
Srilanka	75
China	73

Table 3: Life expectancy

The data reveals India has low life expectancy compared to Srilanka and China. There is a need to enhance expenses on basic health infrastructure.

Items	1951	1981	2000
Hospitals	2694	6805	15888
Hospitals/dispensary beds	719861	504538	719861
Dispensaries	6600	16745	23065

Table 4: Public Health Infrastructure in India 1951-2000

The data on health infrastructure indicates a significant increase in hospitals, beds and dispensaries, doctors and nurses. There should also be discussion on reduction in diahorrea, malaria, child and infant mortality rate. There should also be discussion on limited accessibility to sanitation and water in rural and urban areas.

Category	2005	2012
Access to sanitation		
Rural	18.7	24.7
Urban	56.84	60.20
Access to water		
Rural	82.2	90.7
Urban	94.15	96.7

Table 5
Source: Economic Survey 2013

On analyzing the data, it is evident that people in rural areas avail sanitation facilities less than the people in the urban areas. There is not much difference between urban and rural areas with respect to availability of water.

Difference between the Northern and southern states have been shown for southern states especially Andhra Pradesh, Karnataka, Maharashtra, and Tamil Nadu have maximum number of medical colleges. Large numbers of doctors are trained in southern states compared to other part of the country.

The chapter also addresses the problem of drop out among the students. Students from the subsistence level have a high chance of withdrawal from the school system. The Government thus has made the provision of mid-day meal to retain the students in the school. The scheme of midday meals has been helpful in increasing the enrolment of the students in school. The new food security Act has talked about the inclusion of nutrition content in the mid-day meal. In the absence of which, it leads to drop out among the school students. The studies have shown that mid-day meal have been helpful in encouraging the participation of the students. It also tends to promote social equity and gender parity among the students.

In class XI textbook 'Indian economic development' the chapter holds that 70 percent of hospitals in India are managed by private sector. They look after 80 percent of the outpatient and 46 percent of the in patients. One study pointed out that 17 percent of world population lives in India but carries a frightening 20 percent of the global burden of diseases. There is a need for the Government to enhance its expenditure on health sector to enable more people benefitted from public health support system for they can be afforded by all.

Health infrastructure has been upgraded to attract foreigners to the country. Indian system of medicines includes Ayurveda, Yoga, Unani, Siddha, Naturopathy and Homeopathy (AYUSH). Medical tourism has been encouraged by our Government. The patient comes from outside countries for liver transplant, dental and cosmetic care.

Disparity between rich and poor is also indicated by their expenses on the medical system. The poorest only 20 percent living in the rural areas spend 12 percent of their income on healthcare while the rich spent 2 percent on medical treatment. The government run

hospitals are not adequate to look after the medical needs of the large number of people. They have to go for their treatment in private hospitals which are expensive and make them indebted forever. Lack of medical treatment, too, adds to their vicious cycle of poverty.

4.2. Content Analysis of the Economics Curriculum to See the Integration of Health Component

On analysis it has been found that state plays an important role to ensure health infrastructure to its people. However, there is not much discussion on the provision of drinking water and precaution against the dirt and flies. The learners need to be sensitized towards the application of health knowledge for the control of disease and the avoidance of infection for themselves and others. The student needs to be discouraged towards the consumption of alcohol and tobacco. There has been reference to the use of local medicine for the cure or prevention of disease. The science of health falls within the ambit of biology but has been successfully integrated in the economics curriculum. However, more of information relating to healthy lives should be grouped around the basics of food, fresh air, rest and exercise and elimination of diseases.

4.3. Suggestions

The component of health should be integrated with the compulsory subject like economics. They can be offered as an elective subject at the higher secondary stage.

There should be coordination between education and health department where the latter ensures preventive steps to check the spread of contagious disease.

Students should be sensitized towards the healthy habits since the Montessori stage itself. Awareness regarding the nutritious food should form the basis of their food habit.

School should promote both outdoor and indoor activities.

Health component should form important part of teachers training programme Policy document on education should include the input of health.

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