

DOES IT WORK OUT? THE ECONOMICS OF SUSTAINED EXERCISE FOR THE HEALTH AND PRODUCTIVITY OF DEVELOPING COUNTRIES

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ABSTRACT

India has seen a significant rise in rates of non-communicable diseases including diabetes, pulmonary heart disease and cancer in the past two decades. Exercise and a healthy lifestyle can significantly reduce the risk of contracting such diseases. However such preventive measures are not accessible to a significant part of the Indian population because of the widening of economic inequality. This paper has examined the growing prevalence of such ‘avoidable’ diseases in India. It has looked into the efficiency of exercise as a means to prevent the outbreak of the same. Health policy refers to the decisions and actions undertaken to achieve desired levels of healthcare in a country or society. This paper has emphasized the need to bring exercise to the forefront of the health policy in developing countries like India and the impact on the same on not just the physical and mental health of individuals but also on their productivity and economic output. It has sought to provide policy recommendations to improve the healthcare system through the prioritization of physical exercise in health policy.

Keywords: Health, Exercise, Disease, Healthcare, Public awareness

INTRODUCTION

India has enjoyed remarkable rates of economic development in the past few decades. However, this has come at the cost of growing rates of inequality between the rich and the poor of the country. Though there have been improvements in the healthcare sector, a large section of the Indian population does not have adequate access to those improvements. India’s progress in the field of healthcare cannot be undermined. The life expectancy has increased from 49.7 years in 1975 to 69.1 years in 2018 (Narain, 2016). Major diseases including smallpox and poliomyelitis have also been successfully eradicated. However, challenges in the form of growing rates of non-communicable diseases continue to plague the Indian population. Like many other developing nations, communicable diseases including tuberculosis, HIV/AIDS (Human Immunodeficiency

Virus/ Acquired Immune Deficiency Syndrome), malaria and other tropical diseases continue to be a menace to the public healthcare system in India (Dikid, et al., 2013).

However, Non-Communicable diseases, are presently the leading cause of death in the country, as they are responsible for causing 60% of deaths in India (Jain, 2015). Out of all deaths caused by non-communicable diseases, 80% are caused by cancer, diabetes, heart disease, and chronic pulmonary diseases. These diseases share common risk factors including high rates of alcohol consumption, usage of tobacco, unhealthy diet and a lack of physical exercise. Therefore, the most dangerous diseases in India, according to the deaths that they cause are caused because of an unhealthy lifestyle which is avoidable. This not only causes a threat to life at the individual level but also leads to lower levels of productivity for the entire population. Health Economics is concerned with the study of the functioning of healthcare systems and health-affecting behavior such as smoking. Shifting to a healthier lifestyle reduces the risk of the most dangerous and

life-threatening diseases significantly. Moreover, diseases like diabetes and heart diseases not only cause immediate death but also lead to higher levels of unproductivity for prolonged periods of time. It is also concerned with behavioral economics since the health of individuals is largely dependent on their lifestyle which is impacted by their psychology and the social and cultural environment of individuals (Vuong, et al., 2018). Choices of indulging in ‘desirable’ and ‘non-desirable’ activities like smoking and exercise are impacted by the external environment and internal psyche of people.

Governments as bodies that influence public opinion often nudge people into adopting a healthier lifestyle so that the risk of non-communicable diseases affecting the populace is reduced. The National Tobacco Control Programme was launched in 2003 to bring about greater awareness about the harmful effects of tobacco use and ensure stronger implementation of laws that are concerned with the regulation of tobacco consumption (Oxfam, 2018). Yoga has also been at the forefront of the public health campaign of India, even at the international level. June 21st which is celebrated as International Yoga day sees the release of fresh campaigns by public figures related to the promotion of Yoga every year. In the Indian state of Kerala, the state government introduced a ‘fat tax’ on fast food items to disincentivize people from consuming them (Menon, 2016). Tax rates on alcohol and cigarettes have also been gradually increased over the past few years (Chaloupka, et al., 2019).

BACKGROUND

Research across multiple countries has shown positive benefits of physical exercise on the health of participants. In a 5 year longitudinal analysis of 7456 men and women who were more than 50 years old, it was reported that physical activity (apart from housework and walking) caused a

reduction in mortality rates (Sabia, et al., 2012). Data collected over 12 years showed that continued physical exercise halved the mortality rate of participants (Andersen, et al., 2000). Research, conducted in a shorter time frame, ranging from 12-16 weeks showed that playing football two or three times a week improved the health of participants who had not played the sport previously (Krustrup, 2010). Studies also show that playing football and other sports regularly specifically reduce the risk of contracting diseases like diabetes and cardiovascular disease (Helge, 2010). Dietary habits along with the level of physical exercise are found to be risk factors for the development of many diseases in early adulthood (Telama, 2005). Moreover, engagement in physical exercise also reduces the risk of contracting mental illnesses and contributes to not only the physical but also mental well being of individuals (Bailey, et al., 2012). Physical exercise has been found to significantly reduce the risk of anxiety, depression, and neurosis (DeMoore, et al., 2006).

The public awareness about the value and benefits of physical exercise is gradually increasing in developing countries like India due to a growth in research into this field. However, such benefits can only be obtained optimally when individuals have adequate access to gymnasiums and exercise centers that provide resources including training and equipment.

Access to these resources and facilities is very limited in India. The recent economic growth has been accompanied by the widening of economic inequalities. The growing income inequality which has created a disparity between different socioeconomic classes is also associated with worse health outcomes (Pickett & Wilkinson, 2011). Those who exist in the lower economic strata of the country's population have a higher risk of contracting multiple communicable and non-communicable diseases. The healthcare available to them is sub-standard as well.

Continuous physical exercise, which is a preventive measure against some of the most dangerous diseases is often unaffordable to this section of Indian society. This is only the first of the two barriers that the poor need to overcome that would allow them to exercise more frequently.

Poverty is associated with longer working longer which reduces the time available to them to exercise. These factors make physical exercise a classist commodity in the capitalist society that India is rapidly transforming into.

The problem of access to fitness and exercise also manifests in the form of lower rates of productivity amongst the economically backward. This creates a vicious cycle in which a significant section of the Indian population is trapped. Poverty creates circumstances that deny them access to physical exercise and a healthy lifestyle. This, in turn, causes lower levels of productivity which reduces their ability to achieve higher paying jobs that would enable them to improve their economic conditions. There is a need to pay more attention to physical exercise

and to bring it to the forefront of the country's healthcare program. When adopted as standard practice, it acts as one of the strongest preventive measures against the most dangerous diseases that affect the populace of the country. Moreover, continued physical exercise is also associated with not only better mental health but also higher productivity (Bailey, et al., 2012).

DISCUSSION

A healthy lifestyle that involves sustained and continuous physical exercise not only benefits individuals at a micro level but also contributes to the overall well being of the economy. The definition of 'health' is not only restricted to the absence of illness but also includes the ability of people to develop to their potential during their entire lives. In that sense, health is an asset individual possess, which has significant economic value and contributes to the economic growth of countries (Grossman, 1972). Health, like all assets, is bound to depreciate, but the maintenance of a healthy lifestyle reduces the negative impacts on health and maintains the economic productivity of individuals. Health impacts economics at the micro and macro level in multiple ways. Illness leads to higher rates of absenteeism in the workplace and at schools.

Health also allows for the use of natural resources that used to be totally or partially inaccessible due to illnesses. Finally, a healthy lifestyle reduces the economic costs of treating illness, irrespective of whether that burden falls on individuals or governments. The indirect economic impact of health is felt by the families of those who are sick. Lower rates of productivity more often than not are associated with a decrease in income, which impacts the lifestyle of all dependent members of that family and reduces their ability to contribute to the economy as well. An increase in life expectancy from 50 to 70 years has found to add 1.4% to the Gross Domestic Product (Barrow, 1996). Therefore, health affects economic growth directly through labor productivity and the economic burden of illnesses (Lustig, 2004).

Diabetes is the fastest growing disease in India. 47% of the world's diabetic population resides in India. It has affected 72 million people as of 2017 and that number is expected to double in the next decade (The Institute of Health Metrics and Evaluation, 2017). These figures represent nothing short of a health crisis triggered by this disease. However, research suggests that continuous physical exercise significantly reduces the risk of Type 1 and Type 2 Diabetes (Colberg, 2016). Planned and structured physical activity improves blood glucose control in Type 2 diabetes reduces the risk of cardiovascular disease and also contributes to weight loss. It improves the insulin sensitivity of the body which reduces the risk of Type 1 Diabetes as well (Colberg, 2016). However, challenges related to blood glucose management vary according to the type of diabetes. This implies that exercise must be tailored according to the needs of individuals and more often than not requires professional supervision and training, which is

unaffordable to many.

Effective exercise techniques can be practiced and implemented at home. However, the type and frequency of the exercise routine to be followed must be implemented after professional consultation. Aerobic exercise, which can be at home, helps the body use insulin better. It improves the strength of bones and functioning of the heart, relieves stress and improves blood circulation. It significantly reduces the risk of heart disease and diabetes by lowering blood glucose and blood sugar levels. The growing popularity of moderated and continuous home exercise helps people overcome numerous barriers to fitness. It significantly solves the constraints of time and physical mobility which affect a significant part of the population including working mothers and single parents. Examples of aerobic exercise that is often recommended by doctors include brisk walking, dancing, low-impact aerobics and cycling (American Diabetes Association, 2015). Yoga, a traditional Indian form of exercise, which has been brought to the forefront of India's health program in recent years can also reduce the risk of heart disease, chronic pulmonary disease, and diabetes (Chandrashekhar, 2009).

The demand for healthcare is directly derived from the health of individuals. It is also guided by the desire that people and the state have to obtain and provide healthcare respectively. The present situation presents two problems for policymakers and the government which is responsible for healthcare. When the lifestyle maintained by people is unhealthy and exercise is less frequent, the detrimental impact of these determinants on health leads to a higher demand for healthcare which needs to be fulfilled. For a country with a population as high as India's, this represents a massive economic burden, which is growing with the growing rates of diseases like diabetes. Secondly, if there is less desire to maintain 'good health' from the state and individuals, it leads to lesser availability of healthcare. This, in turn, leads to lower levels of productivity amongst the population and slower rates of economic growth (Grossman, 1972). These theories on health economics suggest that the efficiency of preventive measures such as exercise is directly related to economic growth and productivity in a country.

CONCLUSION

Health policy is defined as the decisions, and actions that are undertaken to achieve specific healthcare goals within a society (World Health Organization, 2011). It is intended to achieve multiple goals; including defining a vision for the future, outlining priorities and setting objectives for various workgroups and building consensus amongst the populace. Health policy forms the base for the healthcare system of a country which in turn has tangible implications of the lives and health of citizens. There is a need to strengthen the healthcare system in developing countries like India. This not only includes strengthening medical facilities and treatment

available to the poorest sections of the society but also nudging and guiding people to a healthier lifestyle. It also includes the formulation and implementation of preventive measures and generation of awareness. To reduce the growing rates of diseases that are 'avoidable' by following a healthier lifestyle, it is imperative for the government to include programs that nudge people to follow such a lifestyle in the health policy. Setting up of equipment that can be used for physical exercise in public parks and healthcare centers significantly improve the problem of access to fitness for a significant section of the population. This move has shown positive impacts in terms of participation in physical exercise at a continuous rate in Delhi after being implemented by three municipal corporations (Manohar & Singh, 2018).

This need is more urgent in developing countries like India because of the greater need for economic growth. Such subtle changes in the health policy are bound to impact the productivity of the workforce and economic growth positively. A healthy lifestyle not only positively impacts the short term mental and physical health of individuals but also improves the productivity and economic well-being in the long run. However, this would require a significant increase in investment in healthcare expenditure at all levels of government. The implementation of such policy measures should be accompanied by significant improvements in the efficiency of state machinery including policymakers at the local level and public officials. In this sphere, the impact of the health policy on the physical and mental well being and economic productivity of citizens is ultimately dependent on public awareness and the willingness of people to indulge in regular physical exercise and follow a healthy lifestyle.

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