



Analytical study of the Physical Activity Status of School going Children of district Pulwama

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Abstract: *The health of global populations faces significant challenges due to trends in population growth, rapid urbanization, and globalization, leading to an increase in non-communicable diseases (NCDs) and associated risk factors. Physical inactivity is a major contributor to the rise of NCDs, with profound implications for cardiovascular health, diabetes, cancer, and obesity. Despite the well-established benefits of regular physical activity in reducing diseases risk and promoting overall well being, levels of physical inactivity are increasing globally, particularly among youth. Attitudes towards physical activity, especially in educational settings, play a major role in shaping lifelong behaviors and health outcomes.*

Key words: *District Pulwama, School children's, Physical activity, Diseases, Health.*

1. INTRODUCTION:

Health of the people is one of the major concerns of today's world. Worldwide; health is being influenced by three trends: population, rapid unplanned urbanization, and globalization, all of which result in detrimental environments and behaviours. As a product, the growing prevalence of NCDs (non communicable diseases) and their risk factors has become a global issue affecting both under developed and developing countries. Virtually Health 45% of the adult disease burden in these countries is now attributable to NCDs. Many under developed and developing countries are beginning to suffer the double burden of communicable and non communicable diseases, and health systems in these countries now have to deal with the additional costs of treating both. It has been shown that participation in regular physical activity reduces the risk of non communicable diseases. Additionally, physical activity is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control. Physical inactivity (lack of physical activity) has been identified as the fourth leading hazard factor for global mortality (6% of deaths globally). Moreover, physical inactivity is likely to be the main cause for approximately 21–25% of breast and colon cancers, 27% of diabetes and approximately 30% of heart disease burden. Physical inactivity has been identified as the fourth leading threat factor for global mortality (6% of deaths globally). This follows high blood pressure (13%), tobacco use (9%) and high blood glucose (6%). Overweight and obesity are responsible for 5% of global mortality. Levels of physical inactivity are rising in many countries with major implications for the general health of people worldwide and for the prevalence of non communicable diseases such as cardiovascular disease, diabetes and cancer and their risk factors such as raised blood pressure, raised blood sugar and overweight. Physical inactivity is estimated as being the principal cause for approximately 21–25% of breast and colon cancer burden, 27% of diabetes and approximately 30% of heart disease burden. In Addition, non communicable diseases now account for nearly half of the overall global burden of disease. It is estimated currently that of every 10 deaths, 6 are attributable to non-communicable conditions.

Worldwide, obesity trends are causing serious public health concern and in many countries threatening the viability of basic health care delivery. It is an independent risk factor for cardiovascular diseases and significantly increases the risk of morbidity and mortality. Childhood and adolescent obesity is a global phenomenon affecting all socio-economic groups, irrespective of age, sex or ethnicity. Many co morbid conditions like metabolic, cardiovascular, psychological, orthopaedic, neurological, hepatic, pulmonary and renal disorders are seen in association with obesity. These co morbidities reflect decreases in physical activity and dietary hanges. It is inevitable that a combination of high caloric intake with reduced physical activity is a recipe for obesity. Research supports the association between physical inactivity and increased rates of overweight and obesity. The prevalence of obesity has increased considerably in recent decades. In particular, the percentage of obese adolescents has risen significantly. Physical activity and exercise are important in the prevention and treatment of adolescent obesity. The goal of non-stationary obesity treatment is to encourage long-lasting sport participation. From the motivational perspective, positive attitudes towards physical



activity and exercise are a key and should be considered when developing obesity interventions. World health organization defined Physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. Regular and adequate levels of physical activity in adults reduce the risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer, depression and the risk of falls and improve bone and functional health and are a key determinant of energy expenditure, and thus fundamental to energy balance and weight control. The term "physical activity" should not be mistaken with "exercise". Exercise, is a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. Physical activity includes exercise as well as other activities which involve bodily movement and are done as part of playing, working, active transportation, household tasks and recreational activities.

Physical exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons, including increasing growth and development, preventing aging, strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, and also enjoyment. Frequent and regular physical exercise boosts the immune system and helps prevent "diseases of affluence" such as cardiovascular disease, type 2 diabetes, and obesity. It may also help prevent stress and depression, increase quality of sleep and act as a non-pharmaceutical sleep aid to treat diseases such as insomnia, help promote or maintain positive self-esteem, improve mental health, maintain steady digestion and treat constipation and gas, regulate fertility health, and augment an individual's sex appeal or body image, which has been found to be linked with higher levels of self-esteem. Childhood obesity is a growing global concern, and physical exercise may help decrease some of the effects of childhood and adult obesity. Some care providers call exercise the "miracle" or "wonder" drug—eluding to the wide variety of benefits that it can provide for many individuals. Aside from the health advantages, these benefits may include different social rewards for staying active while enjoying the environment of one's culture. Many individuals choose to exercise publicly outdoors where they can congregate in groups, socialize, and appreciate life. In the United Kingdom two to four hours of light activity are recommended during working hours. This includes walking and standing. In the United States, the CDC/ACSM consensus statement and the Surgeon General's report states that every adult should participate in moderate exercise, such as walking, swimming, and household tasks, for a minimum of 30 minutes daily. Physical exercises are generally grouped into three types, depending on the overall effect they have on the human body.

Aerobic exercise is any physical activity that uses large muscle groups and causes the body to use more oxygen than it would while resting. The goal of aerobic exercise is to increase cardiovascular endurance. Examples of aerobic exercise include cycling, swimming, and brisk walking, skipping rope, rowing, hiking, playing tennis, continuous training, and long slow distance training. Anaerobic exercise, which includes strength and resistance training, can firm, strengthen, and tone muscles, as well as improve bone strength, balance, and coordination. Examples of strength moves are push-ups, pull-ups, lunges, and bicep curls using dumbbells. Anaerobic exercise also includes weight training, functional training, eccentric training, Interval training, sprinting, and high-intensity interval training increase short-term muscle strength. Flexibility exercises stretch and lengthen muscles. Activities such as stretching help to improve joint flexibility and keep muscles limber. The goal is to improve the range of motion which can reduce the chance of injury. Physical exercise can also include training that focuses on accuracy, agility, power, and speed. Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise, and sufficient rest. Before the industrial revolution, fitness was defined as the capacity to carry out the day's activities without undue fatigue. However, with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations. Fitness is defined as the quality or state of being fit. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term "fitness" increased in western vernacular by a factor of ten. Modern definition of fitness describes either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and good looks which has mobilized global fitness and fitness equipment industries. Regarding specific function, fitness is attributed to person who possesses significant aerobic or anaerobic ability, i.e. strength or endurance. A holistic definition of fitness is described by Greg Glassman in the Cross Fit journal as an increased work capacity across broad times and modal domains; mastery of several attributes of fitness including strength, endurance, power, speed, balance and coordination and being able to improve the amount of work done in a given time with any of these domains. A well rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training. A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills and on age- or health related needs such as bone health. Many sources also cite mental, social and emotional health as an important part of overall fitness. This is often presented in textbooks as a triangle made up of three points, which represent physical, emotional, and mental fitness.



Physical fitness can also prevent or treat many chronic health conditions brought on by unhealthy lifestyle or aging. Working out can also help some people sleep better and possibly alleviate some mood disorders in certain individuals.

Attitude towards physical activity: One area where attitude is particularly important is physical activity. There is emerging evidence to suggest that students who exhibit a more positive attitude toward physical activity in physical education are more likely to participate in physical activity outside of school. This carry over value in terms of attitudes toward physical activity is critical to participation in lifetime physical activity. Positive attitudes formed toward physical activity in physical education can play an important role in maintaining an active lifestyle outside school. In addition, active children are more likely to become active adults. Impacting upon student attitudes toward physical activity through school physical education programs is a logical initial step in helping students participate in physical activity—both now and in the future. The formation of positive attitudes toward physical activity in physical education is all the more important given the increase in physical inactivity among youth internationally, emphasized that by engaging children and adolescents in enjoyable physical activity and teaching them the skills related to developing and maintaining appropriate physical activity, physical education could help future generations of adults avoid becoming so sedentary. In addition, people's attitudes have been found to be the key role in the formation of intentions to participate in physical activity. Impacting student's attitudes toward physical activity in physical education, therefore, could have a major effect on public health. It has been documented that participation in moderate to vigorous physical activity on a regular basis provides numerous physical and mental health benefits. According to Healthy People 2010 (US Department of Health and Human Services, 2000), the number of overweight children in the United States has nearly doubled in the past two decades. Quality physical education programs, therefore, can play a pivotal role in efforts to address the increase in physical inactivity among youth by impacting their attitudes and intentions to participate in physical activity. Researchers in the field of Physical Education (PE) indicated that identifying and understanding the factors that are associated with children's physical activity participation are critical to the promotion of current and lifelong physical activity participation. Among many factors, the children's attitude is considered to be a key factor that influences physical activity participation. Rikard and Banville (2006) stated that attitudes are born from beliefs that one's has about him or herself and things. Attitudes shape one's behaviours in many ways and determine one's involvement in him or her daily activities. Physical activity is defined as any voluntary bodily movement produced by skeletal muscles that require energy expenditure. Physical activity encompasses all activities, at any intensity, performed during any time of day or night. It includes exercise and incidental activity integrated into daily activity. This integrated activity may not be planned, structured, repetitive or purposeful for the improvement of fitness, and may include activities such as walking to the local shop, cleaning, working, active transport etc. Lack of physical activity is associated with a range of negative health outcomes whereas increased physical activity can improve physical as well as mental health. There are at least eight investments that work to increase population-level physical activity, including whole-of-school programmes, active transport, active urban design, healthcare, public education and mass media, sport for all, workplaces and community-wide programmes Physical activity increases energy expenditure and is a key regulator in controlling body weight. Despite continued dramatic increases in children's health, physical education programs are being cut more than ever to make room for more core academic time. This trend continues even through the current evidence shows physical education to be positively related to increased academic performance; when time is allocated for quality physical education, there is no detriment to academic achievement. Therefore, it is critical that physical education (PE) programs in schools continue to be analysed to further show the value of physical activity through physical education programs. Increasing time in physical activity could help address a serious health concern for children, which is the increasing incidence of overweight and obesity. According to the Centre's for Disease Control and Prevention, the number of overweight children has more than tripled since 1980, with 16% (over nine million) of children and teens aged 6- to 19- years overweight. Healthy People 2010 (US Department of Health and Human Services Public Health Service, 2000) list physical activity as a leading health indicator and goals have been established to improve physical activity among adults, adolescents, and children. In addition, Healthy People 2010 indicates that being overweight or obese is a major contributor to several preventable causes of death. Adverse health consequences from obesity include the risk of hyperlipidaemia, hypertension, abnormal glucose metabolism, type II diabetes, coronary heart disease, asthma, orthopaedic problems, and an 80% probability of adult obesity. Other consequences for the obese child include psychosocial issues (social stigma and discrimination), and low self esteem.

The rise in obesity has been attributed to sedentary behaviours, decrease in daily physical activities, decrease in daily physical education classes and poor nutrition. Research has investigated the levels of physical activity, the amount of physical education and the level of fitness in relation to obesity. It is important to differentiate physical activity, physical education, and physical fitness as there is often confusion among these terms. First, physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. The health benefits of physical activity are well established and include lower risk of cardiovascular disease, hypertension, diabetes, and breast and



colon cancer. Additionally, physical activity has positive effects on mental health, delays the onset of dementia, and can help the maintenance of a healthy weight. 1–5 In recognition of this strong link between physical activity and major non-communicable diseases, member states of WHO agreed to a 10% relative reduction in the prevalence of insufficient physical activity by 2025, as one of the nine global targets to improve the prevention and treatment of non-communicable diseases. 6 Monitoring current levels and trends of insufficient physical activity is essential to track progress towards this global physical activity target, but also to identify high-risk populations, to assess the effectiveness of policy, and guide future policy and programme planning. The first compilation of country data to produce global and regional estimates of insufficient physical activity was undertaken in the early 2000s, as part of the Global Burden of Disease study. 7 Bull and colleagues 7 included data for physical activity from 34 mainly high-income countries, mostly focusing on leisure time physical activity. Activity performed in other domains (activity at work, in the household, and for transport) had to be estimated for most countries, in order to get comprehensive and comparable results. Subsequently, two questionnaires including all activity domains were developed.

Physical education involves a developmentally appropriate curriculum conducted by a qualified physical education professional, that develops physically educated individuals who have the knowledge and skills needed for lifetime physical activity. Finally, physical fitness refers to a set of attributes people have or achieve, and are related to their ability to perform physical activity. There is health-related physical fitness, (cardiovascular fitness, body composition, flexibility, muscular endurance, and muscular strength) and skill-related physical fitness (agility, balance, coordination, power, speed, and reaction time). The effect of physical activity which falls under the category of health-related physical fitness is examined in this paper. For children, a major contributing issue to obesity is that they are leading more sedentary life styles. For example, children tend to spend more time in sedentary activities such as computer use, electronic games, and watching TV. With the increase in sedentary activities, there is a steady decrease in daily physical activity. For instance, the Shape of the Nation Report (2001) demonstrated that there were more children watching daily TV (about 40% for three hours daily) than there were children participating in daily physical activity (about 30% daily). More recently, according to the Shape of the Nation Report (2010), vigorous physical activity for at least 20 minutes that increased heart rate and created perspiration, was observed in only one third of children aged 6- to 17-years of age. In addition, there has been a steady decline in the number of students that participate in daily physical education classes.

The School Health Policies and Programs Study (2000) demonstrated only 8% of elementary schools and 6.4% of middle/junior high schools, and 5.8% of senior high schools provide daily PE during the school year. Additionally, the percentage of schools that require physical education has declined with only 50% in grades 1 through 5, to 25% in grade 8, to only 5% in grade 12 (cdc.gov/shpps). The main reason cited by administrators for this decline has been budget restrictions and the need to spend more time on academics to increase standardized test performance. In contrast there are many educators and researchers who believe that PE and physical activity positively impact the brain, learning and academic success. For example, three longitudinal studies in France, Australia, and Canada showed increased time in PE was associated with physical benefits and either improvements or no change in academic performance. First, the study conducted in France involved an increase of required physical activities every afternoon, while the academic instruction was decreased by 26%. The school day was lengthened and included two daily siestas and vitamin supplements. The results demonstrated no difference in academic performance between the experimental group and the controls. However, students in the experimental group were more attentive and displayed fewer discipline problems and had fewer absences than the controls. Second, The School Health, Academic Performance and Exercise (SHAPE) study involved 519 fifth grade children from seven selected schools in Australia. There was random assignment to one of three programs for 14-weeks: fitness, skill or control. Results demonstrated a larger gain of arithmetic scores for the fitness group despite the reduction in academic time. Additionally, there were no significant intergroup differences for the fitness and skill groups in gains of mathematic or reading skills, despite the reduction in academic time. Finally, the Trois Rivieres study of urban and rural schools in Canada included 546

2. CONCLUSION:

Aim of this study was to extend existing knowledge about the role of physical activity on school going children. Moderate-vigorous activity physical activity time in minutes per week by WHO is 420 min / week and the calculating average time of boys were 389 minute and of girls were 307 minute per week respectively which is very low as compared to the WHO recommendations are the same age group. This indicates that both boys (up to age group of 8-12 years) as well as the girls are less active. The boys and girls were spending more time in the sitting and screening and have almost sedentary life style.



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