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Ward Place
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Sri Lanka
E- mail: editor@ncas.ac.lk / librarian@ncas.ac.lk
94 11 2685850 – 94 11 2693974
Http://www.ncas.ac.lk

Assessment of Aahper Youth Fitness Norms: Srilankan (East Province) Adolescents Boys

Ketheeswaran, K.

University of Jaffna, Jaffna

Introduction

During adolescent period, major physiologic, cognitive and behavioral changes take place and biological development and psychosocial development overlap. A person's body undergoes dramatic changes. World Health Organization (WHO) defines it as the period of life between 10-20 years of age. There are three distinct phases of transition from adolescence to adulthood. Early adolescence (10-13 years): mainly characterized with physical maturity with onset of puberty, mid adolescence (14-15 years): with development of separate identity from parents and opposite sex, and finally the late adolescence (16-19 years): denoted as fully developed physical characteristics, with formation of a distinct identity and well developed opinions and ideas (Pandey et al., 1999). It is clear that the mid and late phases of transition are more important because the pace of mental and physical development is rapid in this stage.

The American College of Sports Medicine (ACSM) has defined health related physical fitness as "a state characterized by an ability to perform daily activities with vigor and a demonstration of traits and capacities that are associated with low risk of premature development of the hypo kinetic diseases (i.e, those associated with physical inactivity)." Health-related physical fitness consists of those components of physical fitness that have a relationship with good health. The components are commonly defined as body composition, cardiovascular fitness, musculoskeletal fitness (flexibility, muscular endurance, and muscular strength) (Nieman, 1998). The present study has compared and evaluated the norms of AAHPER youth fitness battery among Sri Lankan (east Province) adolescent-boys.

Research Problem

The unique strength of physical education and sports exists in its capacity to enthuse a dream in successive young generations. The life style of today's generation has changed tremendously. The fitness level of individual

has gone down badly. Students prefer video games rather than to toil sweat in the play fields. Now Kids are suffering more and more from postural deformities. The only way to remove these factors from society, the roll of Physical Education and Sports become massive. It not only improves the health of an individual also make him stronger mentally to face the huge competition present in today's fast changing world. Various postural deformities if cured at teenager age can reduce the risk of complications.

Over the past decade there has been growing acceptance that young people between 10 and 24 years of age are a distinct population group with needs that differ from those of infants or adults'. Youth from marginalized groups and lower- and middle-income countries are especially vulnerable. The nutrition transitions to lipid-rich diets and a decrease in physical activity have also seen an increasing prevalence in obesity, especially among urban youth. The survey revealed that of the students of public schools, 55 % of students are over- weight and chances of heart attacks, diabetic problems, hair loss and blood pressure are much more in these students.

Objectives of the Study

The aim of the study was to compare and evaluate the AAHPER youth fitness test among the adolescent boys of the eastern province of Sri Lanka.

Methodology

To achieve the purpose (N=800) adolescent boys from age of 14 years (n=400) and 15 years (n=400) were randomly selected as subjects from east province, Sri Lanka, AAHPER (50 yards -speed, Standing broad jump - explosive power, 1.5 miles run - endurance, sit-ups -abdominal strength, shuttle run – agility and pull-ups-arm strength) youth fitness test were selected as criterion, variable and tested, the data were converted into AAHPER youth fitness norms (Johnson and Nelson, 1976).

Key Findings

Table 1: AAHPER Norms of 14 And 15 Year Adolescent Boys of East Province of Sri Lanka

Percentile	50 Yards (l/10sec)		SLJ (feet & inches)		1.5 miles (minutes)		Sit-ups (No./lmin)		Shuttlerun (l/10sec)		Pull-ups (Nos)	
	14 yrs	15 yrs	14 yrs	15 yrs	14 yrs	15 yrs	14 yrs	15 yrs	14 yrs	15 yrs	14 yrs	15 yrs
100 th		-	-	-	-	-	-	-	-	-	-	-
85 th	17	9	-	11	-	3	-	24	9	13	3	20
75 th	179	83	-	132	-	21	25	73	180	89	70	46
50 th	85	245	133	199	95	258	248	249	200	290	304	329
25 th	119	63	267	58	305	118	127	54	11	8	23	5

The table indicates the cumulative scores of AAHPER test battery less than 50th percentile for 14 year old boys as follows: 50 yard (51%), SLJ (100%), 1.5 mile run 100%, sit-ups (94%), shuttle run (52.75%) and pull ups (81.75%) respectively. For 15 years boys, 50 yards (77%), SLJ (64.25%), 1.5 mile run (94%). Sit-ups (75.75%), shuttle run (74.5%) and pull ups (83.5%) respectively. The result of AAHPER youth fitness existing norms shows that, 14 and 15 years boys of east province were mostly below the 50th percentile in all AAHPER youth fitness qualities.

The public health burden of lifestyle - related diseases in the European countries is high. The most common cause of morbidity and mortality are coronary heart disease, stroke, obesity, hypertension, type-2 diabetes, allergies and several cancers. A sedentary lifestyle is a major risk factor for these diseases and is close to overtaking tobacco as the leading cause of preventable death. The protective effect of intentional physical activity on the above mentioned non-communicable diseases has been widely reported in people of all ages (Jonker et al., 2006). Regular participation in moderate and vigorous levels of exercise increases physical fitness, which can lead to many health

benefits (Ruiz et al., 2006). Physical fitness is also determined by constitutional factors, and it has been suggested that up to -40% of variation in fitness may be attributable to genetic factors (Bouchard, 1986). In adults, low physical fitness (mainly low cardio respiratory fitness and low muscular strength) seems to be a stronger predictor of both cardiovascular and all-cause mortality than any other well established risk factors.

According to the UNESCO Charter of Physical Education and sports, 1978, "Every human being has a fundamental right to access to physical education and sport, which are essential for the full development of his/ her personality. The freedom to develop physical, intellectual and moral powers through physical education and sport must be guaranteed both within the educational system and in other aspects of social and healthily life".

Physical fitness 'A set of attributes that people have or achieve relating to their ability to perform physical activity (Flowly, & Franks, 1997). Physically fit individuals can accomplish the ordinary tasks of life (carrying groceries, climbing stairs, gardening) with less fatigue, storing up an energy reserve for leisure-time exercise or unforeseen emergencies and to persevere under difficult circumstances. Physical fitness is the opposite of being fatigued from ordinary efforts, to lacking the energy to enter zestfully into life's activities, and to becoming exhausted from unexpected, demanding physical exertion (Shephard, 1994).

Lifestyles affect people's health, with eating habits and regular physical activity being the two most influential factors (Panagiotakos, 2004) irrespective of sex, age or country of residence (Yusuf, 2004). An appropriate way to assess health in apparently healthy people is to measure their health-related fitness, defined as the dynamic state of energy and vitality that allows people to perform daily tasks, enjoy active leisure and cope with unexpected emergencies without undue fatigue. At the same time, health-related fitness helps in the prevention of hypo—kinetic diseases, in maximum development of intellectual capacity, and in full enjoyment of life (Bouchard, 1993). Although regular physical exercise has a positive influence on health, a high level of fitness-related health has a greater influence (Eriksson, 2001 & Myers, 2004).

Conclusion

From the results it was concluded that the adolescent boys (14 Yrs and

15 yrs) of east province (Sri Lanka) were having poor physical fitness qualities such as, speed, explosive power, endurance, abdominal strength, agility and arm strength.

Some reasonably well-established facts regarding the characteristics of physical activity or exercise that contribute to an improvement in physical fitness such as the pupil that scored below 50th deciles on the selected fitness variable in their respective age group should be encouraged to improve their fitness level. National Level common fitness norms may be constructed and standardized for fitness assessment. To identify children and adolescents at risk for major public health diseases and to be able to evaluate effects of alternative intervention strategies in Sri Lanka and internationally comparable testing methodology across the country has to be developed, tested, agreed upon and included in the health monitoring system currently under development of the human resource department, school education department, public health department and other NGOs of Sri Lanka.

Keywords: AAHPER; Adolescent; Fitness; Norms

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