Title: Children and Exercise Appropriate Practices

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Introduction: Short-burst fitness can be described as the ability to perform brief, high-intensity activities (Rowland, 2005). This is the typical activity pattern of children. Bailey et al. (1995) observed children between the ages of six and 10 over a 12-hour period and reported a median duration of three seconds for intense activities, with 95 percent of intense activities lasting under 15 seconds. The majority of activity was of low-to-moderate intensity, yet it was still intermittent in nature with an overall median activity duration of six seconds. Historically, short burst activities have not been regarded as essential for achieving optimal health in the general population. However, it is important to note that when encouraged to exercise, children are more inclined to engage in short-burst activities and that in the pediatric population this form of exercise is extremely valuable in promoting healthy body composition, muscle development, bone density, and an active lifestyle (Rowland). Hence, short-burst activities should be incorporated into elementary physical education. For example, chasing, fleeing, and dodging activities, such as tag games, provide children with short-burst activity. Therefore, the purpose of this article is to review concepts of pediatric exercise physiology that are essential to physical education programs for children.

Methods: For assessing Children and Exercise Appropriate Practices, a review article on the last existent researches carried out.

Results: The results highlighted that the associations between children's activity and health were similar regardless of how the child accumulated the activity. In other words, a child who accumulated short bursts of moderate or vigorous exercise throughout the day was just as healthy as a child who did a similar amount of activity over longer sessions. Measures of short-burst fitness include the Wingate bike test and 40-meter to 50-meter sprints. One clear trend in the literature is that there is a progressive increase in short-burst fitness as children grow. This is attributed to enhanced efficiency for movement and utilization of glycolysis (related to increasing levels of muscular glycogen and activity of glycolytic enzymes such as phosphofructokinase; Malina et al., 2004). Regardless, short-burst activities are developmentally appropriate for K-6 children and should constitute a significant portion of their physical education programming.

Conclusion: The promotion of physical activity and physical fitness are central tenets of physical education. It is often assumed that these two concepts go hand in hand, in that those who participate in regular physical activity are physically fit. However, in children, the relationship between habitual activity and fitness is not particularly strong (Payne & Morrow, 1993). Much of the disparity between activity levels and physical fitness in children can be attributed to varying rates of growth and development (Corbin, 2004). Maturation (or lack thereof) has a significant effect on how children respond to exercise (Corbin, 2002). An understanding of how growth and development during childhood affect fitness, of physiological responses to
exercise, and of exercise programming is particularly important for physical educators working in an elementary school setting.

References: