

# Student

[Science](#), [Epidemiology](#)



Childhood Obesity and Heart Disease, and the Importance of Physical Education in Schools Kristal Brandenburg ENG 122: English Composition II Instructor Deborah Zeringue April 8th 2012 Childhood Obesity and Heart Disease, and the Importance of Physical Education in Schools INTRODUCTION Childhood obesity across the world is increasing rapidly. According to Baker, Olsen, and Sorenson (2007), in the United States, there is no sign that the increases in childhood overweight and obesity are slowing down. According to Rocchini (2011), obesity is the most common nutritional problem among children in both developed and underdeveloped countries. The increasing numbers of children with obesity is so serious it has been labeled an epidemic (Sort, Daeschel, & Amador, 2011). With obesity come many health risks. It is important for people to realize how severe the consequences of obesity are. One risk factor of being obese is heart disease. Hypertension, dyslipidemia, impaired glucose tolerance, and vascular abnormalities are already present in overweight children, and all of these are risk factors for coronary heart disease (Baker, et. al., 2007). Early development of these risk factors from being obese may increase the chances of heart disease in adulthood. Obesity and the risks associated with obesity need more recognition from people because it is important to continue to fight the obesity epidemic. A focus needs to be placed on helping children reach and maintain a healthy weight, and also learn healthy lifestyle habits. One way to help children reach and maintain a healthy weight is to have quality physical education programs in schools worldwide. Quality physical education provides children with the opportunities to be active throughout the day and also spend time in the classroom learning healthy lifestyle habits. Physical

activity and education play an important part in influencing children to value physical activity, to choose healthy habits throughout their life, and also helps children reduce and maintain a healthy weight. The claim of this paper is that all schools should be required to provide quality physical education programs for their students in an effort to help fight the obesity epidemic which in turn will help fight heart disease as well. METHODS Preliminary research helps to select some aspects of the topic to study and to determine if enough, too much, or too little information is available on those aspects of the topic (Sole, 2010 ch. 3). The databases used for this research project were ProQuest and EBSCOhost within the Ashford Library, and also government and educational websites. These websites and the Ashford Library have many scholarly journals and research reports that offer useful information and statistics on the topic. Keyword searching was used to find articles for this paper. Keyword searching is probably the most popular search technique people use for searching the Internet, and most Internet search engines retrieve information using keywords (Sole, 2010 ch. 5). The main keyword used during the search was childhood obesity, and other words used were heart disease and physical education. Other searches conducted were through Google using the same keywords, which brought up government and educational websites. Using these words brought up many scholarly articles that discuss how childhood obesity is related to heart disease, and also how physical education in schools is beneficial to fighting the obesity epidemic and heart disease. RESULTS While conducting research, it was found that childhood obesity is related to heart disease in adulthood. According to Rocchini, (2011) “ There is strong epidemiologic evidence that

obesity in childhood is associated with an increased incidence of atherosclerosis in adulthood. " Epidemiologic refers to the studies of the causes, distribution, and control of diseases in groups of people. Atherosclerosis refers to thickening or hardening of the arteries. The interpretation of what Rocchini is saying is that there is evidence through studies of groups of people that childhood obesity is related to thickening or hardening of the arteries. Thickening of the arteries is a medical issue that influences the development of coronary heart disease. The many factors that influence why and how children become obese will be discussed next, but first the discussion will be on how to determine whether a child is obese by looking at ways to compare the weights and heights of children. Children's heights and weights are measured and plotted on a growth chart to identify children who are underweight, overweight, or obese. The Center for Disease Control provides charts that help identify children with weight problems. These charts allow health care professionals and others compare the current height and weight of any particular child to the norm of other children within the United States. Another way of measuring the appropriate growth rate of children is to use the BMI. The BMI or body mass index is not age specific, but instead assesses body weight relative to height to determine the risk for overweight or obesity (Sorte, et. al., 2011). These measurements are recorded regularly through-out children's lives to make sure proper growth is taking place. Now that the methods for determining appropriate weights have been identified, the factors that influence the chances of developing obesity issues will be discussed. Obesity and weight issues can be caused by many factors. According to Sorte, et. al. (2011) trends in nutrition and eating

behaviors include fewer infants being breastfed, more snacking and eating meals away from home, and larger portion sizes, all of which lead to increased consumption of sugars and fats. Consuming more sugars and fats without proper exercise will eventually lead to gaining weight. Maintaining a healthy weight is done by balancing the amount of calories a person takes in with the amount of calories burned through exercise. Without this balance, children will be susceptible to reaching an unhealthy weight. Time spent in front of the television, computers, video games, etc., could be spent being active but many kids choose to be inactive because it has become part of their lifestyle. Poor food choices are another factor that impacts the chances of having overweight problems. Many foods come prepackaged which are easier to prepare than home cooked meals, but do not carry the nutritional value that fresh fruits, vegetables, and other foods do. Many people choose to eat fast food as well. These choices may be ok on occasion, but when eaten on a regular basis it increases the chances of becoming overweight. According to Washington, (2012) the risk factors for developing overweight or obesity are categorized into three groups. The three groups include: 1. Increase in energy consumption, 2. Decreased energy expenditure, and 3. Each child's genetic makeup (Washington, 2012). Some of these factors can be modified and some cannot. Put all of these factors together and it's the perfect combination for developing overweight and obesity problems. Children that are used to this type of lifestyle may not realize the impact that it has on their body, how to eat healthy, or how to be physically active especially when their parents don't value a healthy lifestyle. Washington (2012) also states that " Unless and until all these risk factors are

simultaneously addressed and reduced, the obesity epidemic cannot be controlled and eventually decreased. " Many people may not realize the seriousness of the consequences from being overweight or obese. There are many aspects of childhood obesity. Heart disease is one aspect of childhood obesity. Now that there is an understanding of how children's weight is measured and the influencing factors to becoming obese, the focus will be to look at the factors that will help eliminate childhood obesity and heart disease. Heart disease is a major problem in the United States, and it is essential to develop more effective strategies for treating and preventing childhood obesity. Intervention and prevention services for childhood obesity are a cost-effective way of achieving a long-term reduction in atherosclerotic cardiovascular disease (Rocchini, 2011). Through interventions and programs such as quality physical education in schools, people can help fight the obesity epidemic and make a healthier future for the youth and even adults of today. Quality physical education programs need quality physical education teachers. Effective teachers know and teach exercise science and other factors that underlie a healthy, active lifestyle and battle hypokinetic diseases such as obesity (Rattigan & Biren, 2007). These teachers need to understand the different aspects of how to maintain a healthy life and fitness level, and also how to motivate children to want the same outcomes for their own life. Physical education teachers and schools have an obligation to help children learn to make healthy choices and value physical activity throughout their life time. Teaching children nutritional values, physical activity values, and the benefits of both is one way to get them motivated to want to develop healthy decision making skills in relation

to the choices in food they make and the amount of time they spend being physically active. Making the lessons that children learn fun, engaging, and interesting is important to get children motivated to learn. Teachers can plan activities that children will enjoy. Some examples include taking walking field trips, doing scavenger hunts, providing time for sports and games, dances, biking, hiking, providing balls, planning family events, and many more. An effective physical education program will provide children with many opportunities to engage in a variety of activities that according to the NASPE (2012) will develop fitness, can explain why these activities develop fitness and the basic science behind it, and value physical activity as part of healthful living. It is important that children learn to value physical activity and develop the ability to make healthy decisions in order to help them regulate their own weight, fitness, and overall health. However, many schools do not provide quality physical education programs. The reasons behind this include lack of funds, a push for more academics, and the lack of knowledge about the importance of physical education and activity in the lives of children. According to Sorte, et. al. (2011) in early childhood settings, teachers report that children are spending more time at table activities and less time playing actively outdoors. Some early childhood and school settings do not provide enough space both indoors and outdoors for children to be physically active. Some do not provide enough time through-out the day for physical activity. Many devote most of the school day to academics, at the cost of time for exercise (Sorte, et. al., 2011). Teachers may not be properly trained, especially those in after-school programs, which results in the lack of quality of the physical education/activity. Some teachers keep

children inside as a form of punishment or to make up assignments. Another reason is funding restraints. Some schools eliminate physical education, which decreases the focus on teaching physical activity skills and the opportunity for exercise (Sorte, et. al., 2011). Regardless of the factors that influence why children aren't provided with the opportunity for quality physical education programs, people need to work to make the goal a reality. Studies have demonstrated that increased exercise and a proper diet will provoke a reduction in body weight and BMI and significantly increase the functional capacity of obese children (Washington, 2012). Children deserve to live happy and healthy lives. It is up to the adults to make sure programs are available worldwide. Physical education is just as important as the academics that the government and so many other people are pushing for. After all, the children of today deserve to grow up knowing how to be healthy and physically fit, and quality physical education programs should be available to help each child live a healthy life.

**Conclusion** This paper discusses childhood obesity and its relation to heart disease, and why physical education needs to be included in every school. A model created by Bibbins-Domingo after studying data of obesity predicts by 2035, the prevalence of coronary heart disease in adults will increase by 5 to 16% and that more than 100, 000 excess cases of coronary heart disease will be directly attributable to childhood obesity (Rocchini, 2011). It is obvious that childhood obesity is linked to heart disease, and with estimations like Bibbins-Domingos', it is imperative that children's health is put on the forefront of our countries priority list. Heart disease is one of the health issues linked to childhood obesity, and it needs more recognition from the



decision makers in our country and world. The government and educators, and any other people that influence what children are provided with in school need to make more of an effort to ensure that every school has the funds, skills, and knowledge necessary to provide children with quality physical education. Students should know what a "healthy" body weight or composition is, but the critical thing is to know how to eat healthy, what to do to improve health fitness, and that eating this way and doing these things will lead to better health (Rattigan & Biren, 2007). All of this can be achieved through quality physical education for our youth. Teaching children healthy lifestyle habits, how to choose nutritional foods and the importance of physical activity is one majorly important factor in fighting the obesity epidemic, fighting and preventing the vast numbers of cases of heart disease among people, and giving children the chance to live a longer and healthier life. It is important for children to start learning these values as early as possible in life. Through physical education, children and parents can learn the importance and benefits of living a healthier life. In order for all children to be included in the fight to prevent childhood obesity and heart disease, all children need a quality physical education program provided to them by schools across our country. References Baker, J., Olsen, L., & Sorenson, T., (2007). The New England Journal of Medicine. Childhood Body-Mass Index and the Risk of Coronary Heart Disease in Adulthood Retrieved from <http://proquest.umi.com/pqdweb> NASPE (2012) National Association for Sport and Physical Education Position Statements Retrieved from <http://www.aahperd.org/naspe/> Rocchini, A., (2011) The New England Journal of Medicine. Childhood Obesity and Coronary Heart Disease. Retrieved from

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