

Obesity Prevention Program:
A Call for Social Change in Boulder County, Colorado

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Psychology and Social Change
PSYC-8700-03
May 19, 2007

Abstract

Childhood obesity is reaching epidemic proportions and, if not treated or prevented, is associated with multiple health related disorders such as cardiac disease, hypertension, and type 2 diabetes. The major contributing factors to the onset of childhood obesity are the high caloric intake of food and low physical activity levels. Obesity is a disorder that can be corrected by incorporating the entire community and therefore, a social change initiative is required. Using the overall social change theory of functionalism and the subset theories of promotion and psychological assessment of a problem as a whole, an obesity prevention program for the community of Boulder County, Colorado is being proposed. This proposal includes the details of the program, the roles and challenges the community and the family will have to face, and the potential strengths and weaknesses of program. Finally, a system to measure the success of the program is proposed.

Obesity Prevention Program: A Call for Social Change in Boulder County, Colorado

The United States is facing a health crisis as the existing generation of school children is on track to becoming the most obese group of Americans in history (Caprio, 2006). Children are more likely to face obesity than child abuse or childhood diseases (Green & Reese, 2006). Common sense suggests and medical research confirms that there are two leading factors for obesity which are having a poor diet and not getting enough exercise (Center for Disease Control, 2006). Many may point their fingers at parents or at the school system as responsible parties to blame for childhood obesity. However, there are socioeconomic and educational factors that could contribute to parent's inability to provide nutrition and environments that encourage health. Existing children who are obese may be in homes in which food choices are severely restricted due to financial causes. There may be a lack of an exercise routine in the child's life because parents in lower socioeconomic groups may not encourage or teach their children how to participate in these activities because they did not participate as youths either. Regardless of socioeconomic positioning a social change in the form of an obesity prevention program must be implemented for children to deviate from the devastating health-related path this generation of children is headed down.

Problem Statement and Definition

Obesity is looked at through a variety of lenses when it comes to the definition, understanding the causes, and determining if obesity is a disease or a behavioral pattern. The American Obesity Association (AOA) states that 64.5 percent of Americans are considered obese and that obesity is a chronic illness that increases the possibility of developing high blood pressure, type 2 diabetes, and heart disease (2005). One of the best

measurements to determine if a person is obese is the body mass index, or BMI, and many general practitioners take this measurement on adults, but it is not often a requirement for examining children (Hairon, 2006). BMI is a calculation based upon a person's height and weight to assess total body fat and the National Institute of Health (2007) states that a BMI of 18.5 or below suggests a person is underweight, 18.5-24.9 is considered normal, 25.0-29.9 is considered overweight, and 30.0 or above is considered obese.

Governmental statistics

Currently the Center for Disease Control (CDC) states that obesity in the United States, determined by using the BMI, has risen from 15% to 32.9% in the past 24 years (2006). With the rise in obesity comes an increase in health conditions such as hypertension, coronary artery disease, stroke, type 2 diabetes, and some cancers. The CDC has classified the obesity rates for children and for those ages two to five, obesity has increased from 5.0% to 13.9%, those aged six to eleven have seen an increase from 6.5% to 18.8%, and children aged twelve to nineteen have increased from 5.0% to 17.4% (2006). The CDC further defines contributing factors of obesity as an energy imbalance between consuming calories and expending them through physical activity, understanding the role of behaviors and the environment, and factoring in culture and socioeconomic status (2006). Culture plays a role in how Americans eat (Segelken, 2005). Children grown and learn eating patterns during their childhood so the family unit and the community must be addressed simultaneously (Segelken, 2005).

Boulder county youth health statistics

The Colorado Department of Public Health and Environment, CDPHE, (2006) recognizes that overall the state of Colorado is a healthy place to live and that a Coloradian's lifestyle is typically more physically active and health conscious in comparison with other states. Over fifty 50 percent of adults in Boulder County, Colorado live active lifestyles and this is demonstrated in that adults have lower obesity rates compared with the rest of the country. However, the overall rate of obesity in Boulder County is on the rise and this includes children (CDPHE, 2006). A Colorado Child Health Survey conducted in 2006 found that children in Boulder County are not exercising at the recommended amount, their nutrition is below the recommended value, and they are overweight. Specifically, for children aged two through fourteen, 15.1% are at risk for becoming obese and 13.7% of children are considered to be obese using the BMI measurement techniques recommended by the Center for Disease Control (State of Colorado, 2006).

Analysis Using Social Change Theories

The basis for this program proposal is to look at the problem of childhood obesity, families, and the community through the lens of the concept of functionalistic social change. Functionalism emphasizes that a psychologist or sociologist can scientifically study the social world and that social systems are created by, and supported by, functions such as school districts, families, and neighborhoods, and that these systems can work together to make social change (McClelland, 2000). Additionally functionalism looks at society with the understanding that different systems of society have roles and functions

and that societal problems such as obesity have side effects for the individual that effects the system of society as a whole.

One individual side effect of obesity is depression and poor quality of life (Daniels, 2006). Children who are obese are often victims of bullying and are given stereotypes of being lazy or stupid (Kumanyika & Grier, 2006). This sad reality is what clearly makes this issue, for psychologists, a call to action for social change. O'Neill (2005) states that psychologists, that traditionally have a focus on the problem of the individual because of the nature of their education and training, should shift their focus onto the problem of the whole which includes the social setting so that social change can be achieved. The values and the manner in which psychologists practice functionalism can range from benefiting the individual to benefiting society in a communistic manner and both approaches have their risks and rewards; however, it is important when contributing to a social change initiative or uncovering the need for a social change movement that the psychologist ethically evaluates the manner of psychological approach that will be taken (Prilietensky, 1997).

The social change initiative of obesity prevention has been built based upon research and reflection on a variety of functionalistic theoretical research. For example, understanding that communities are complex and multi-tiered social systems, a social change program should strive to be uncomplicated so that it can be promoted effectively in the community (Tseng et al., 2002). Additionally, for a social change program to be promoted it needs to encompass more than just education; physical activity should be incorporated into the strategy (Hutchinson & Mercier, 2004). This program incorporates these best practices.

Food choices and physical activity

In addition to analyzing this problem using social change theories specific data surrounding the problem such as food choices and physical activity habits should be analyzed as well. Currently 21.7% of Boulder County children eat fast food more than twice a week yet only 7.7% eat three servings of vegetables a day (State of Colorado, 2006). The National Association for Health and Fitness recommends that children who were ages 5-14 participate in several hours of appropriate physical activity each day. In Boulder County 27.6% participated in less than five hours of physical activity each week yet 14.4% played over one hour of video games and 19.9% watched television for two hours or more each day (State of Colorado, 2006). These statistics demonstrate that children do have time to exercise and there is expendable income available to purchase vegetables instead of fast food in most cases; however, poor choices are being made by many families.

Socioeconomic status and child development

When it comes to staying fit some families in higher socioeconomic classes can afford personal trainers or personal chefs and provide their children the ability to attend fitness clubs or join sports teams. However, when it comes to combating obesity and related health disorders many parents are not able to provide financially-related solutions such as these (Bradley & Corwyn, 2002). Developmental psychologists believe that families that can not afford a variety of social activities such as joining sports teams, signing up for the local gym, pool, or ice skating rink find their children at risk for developing physical and mental problems than are their counterparts (Bradley & Corwyn, 2002). Lower income families in the United States are less likely to have social networks

that result in children participating in groups such as Girl Scouts or organized sports, all which can benefit the mental and physical health of the child (Evans, 2004). Currently 31.7% of children in Boulder County report that they have often had to eat low-cost and low-nutritious food because their care-taker was running out of money to buy food (State of Colorado, 2006).

Proposed Social Improvement

Health behaviors that start off positively in childhood can be carried on into adulthood and thus reduces a person's chance to have certain weight or obesity related illnesses. Referring back to the Colorado Child Health Survey (2006) 28.8% of children are at risk or already are overweight and nationally recommended daily exercise targets are not being met. Therefore, an obesity prevention program must be implementing in Boulder County grade schools. The creation of exercise programs that are affordable as well as nutritional education programs in the classroom environment is a concrete action that could catapult the obesity prevention goal.

The first part of the obesity prevention program will be to structure after school exercise-based activities to ensure that all children engage in at least one hour of physical activity that exceeds the recess standard in Boulder County schools. The activities would be held either indoors during the winter season or outdoors during the fall and spring season but it would always take place on site at the school. This activity based program will use motivation and achievement goal theories to encourage children to enjoy exercise while focusing on tasks and outcomes for each activity (Hutchinson & Mercier, 2004).

The second part of the obesity prevention program would be a nutritional education program. Children are born with personal preferences when it comes to food choices but healthful food behaviors are developed starting as early as preschool (Lindsay, Sussner, Kim, & Gortmaker, 2006). However, as obesity is known to run in families, intervening in a grade school aged child's eating patterns will not result in a sustainable change in their eating patterns; the entire family needs to have a behavioral change program (Prilleltensky & Nelson, 2000).

This education program would be for not only the children but also the parents as the problem of obesity does not lie only with the child who is struggling with their weight; this is a community issue. First, families with children in grade school would receive a nutrition newsletter on a biweekly basis. The purpose of the newsletter would be to provide nutritional information to families by including recipe ideas that are low in caloric and carbohydrate intake and financially affordable. There would be competitions to encourage families to share their best practices and local doctors, nutritionists, and specialists would be interviewed and featured in each issue. The education system would be supplemented with curriculum that takes the concept of home economics to a whole new level. Children would learn how to cook, understand the implications of eating unhealthy food, and learn how to measure their body fat while understanding the implications of being overweight.

Funding the obesity prevention program

This plan will require the cooperation of school administrators, parents, school nurses, school boards, and physical educators. Currently Boulder Valley School District (BVSD) manages the budgets and school systems for all Boulder County, Colorado.

BVSD does have special programs they plan for in their budget which includes after-school sports and activities so there is an opportunity to lobby for those funds to be applied to the obesity prevention program (Boulder Valley School District, 2005).

Another option is for grants to be set up to waive the costs for children in lower socioeconomic status groups to join team related activities that focus on health education, physical activity, and team building. Currently Divide, Colorado is testing a grant driven fund that allows for an after school program, lead by an exercise physiologist and a dietitian, that focuses on physical activity and nutrition (Lewis & Anft, 2003). Upon reviewing the results these programs could be replicated across many other districts.

Boulder County school systems will have to absorb the cost of health psychologists into their budgets. Currently staffing is managed at BVSD with a concept called full-time equivalent rather than an actual dollar amount incorporated into their budget so it is not up to the school board to determine if a the cost of a health psychologist is of value (Boulder Valley School District, 2005). Rather the additional cost may have to come from a slight tax increase for the residents of Boulder County with the understanding that when this program becomes successful they will see a decrease in the use of their tax dollars for state funded medical costs (usually through Medicaid or Medicare) when this generation of children reaches adulthood as there will be less obesity related health expenses.

Psychological and sociological theory and research to support the program

There is a great deal of psychological and sociological research available to support the negative impact obesity has for children and adults not only from a physical health standpoint but also from a mental and emotional health perspective. Western

culture supports a concept entitled the “thin ideal” which is that success, beauty, and personal worth is associated with a person’s body image (Klaczynski, Goold, & Mudry, 2004). This psychological research theory supports multiple hypotheses that there are stereotypes surrounding obesity such as they are lazy, stupid, incompetent, and that they should be avoided by members of society who believe obese people are of a lower class (Klaczynski, Goold, & Mudry, 2004). With this knowledge and research about the negativities associated with obesity in conjunction with the normal challenges of lifespan development it seems clear that obese children need support from their community, even if it is only to help them develop skills and strategies to cope with the negativity they will face in this society (Lindsay, Sussner, Kim, & Gortmaker, 2006). Family education, support, and school-based intervention programs, similar to the obesity prevention program that is being proposed, have been shown to be effective in many communities (Center for Disease Control, 2006). Additionally, the layered support of this proposal is consistent with the functionalism model of social change which is a model that will most likely benefit the community as a whole (Hustedde & Ganowicz, 2002).

The Role of the Health Psychologist

Health psychologists are actively involved in research surrounding human behaviors that can contribute to health problems. Birth and death statistics, behavior risk factors, cancer incidences, pregnancy risk assessments, job injury statistics, and tobacco, drug, and alcohol consumptions are example areas that are of interest. The health psychologist with a social change based education naturally will desire to help design preventative strategies such as the obesity prevention program.

The psychologist will play an active role in driving the obesity prevention program by analyzing and identifying high risk children, teaching faculty, parents, and students how to measure body mass index and psychologically assessing children as needed. Additionally, the consequence of childhood weight disorders such as cardiovascular problems, metabolic disorders, pulmonary complications, gastrointestinal disorders, and skeletal abnormalities should be discussed. These disorders may not present themselves in obese children but their prevalence in adolescence and adulthood increases (Daniels, 2006).

Health psychologists need to be available to the children in the community because very often children who are overweight or obese have a great deal of stress which can effect their progress in school, in interaction with their peers, and their role in their family dynamic may be damaged (Rollin, Arnold, Solomon, Rubin & Holland, 2004). Therefore, stress management needs to be incorporated into the program with an emphasis given to children whom the health psychologist has determined to be at risk.

Psychological concepts and physical educators

Physical educators will need to work with health psychologists to understand some of the psychological concepts associated with obesity and how this is displayed by children. For example, a child may be showing negative behavior during physical activity and the educator may interpret this as being rebellious or uncooperative when in fact, the child is experiencing insecurities about their ability to perform physical activity. Green and Reese (2006) recommend incorporating psychological concepts when designing exercise programs, such as having the children work in large group activities rather than ones that focus on or highlight the individual child, so that peers do not have

time to judge each other and so that the stereotypes associated with obesity can be deterred as the obese child's physical skills have an opportunity to improve (Saling, Ricciardelli, & McCabe, 2005).

Additionally health psychologists should work with physical educators to inform them of the psychological benefits of exercise such as a reduction in feelings of anxiety and depression. They need to understand how important their role as a physical educator has on the overall mental success of a child (Hutchinson & Mercier, 2004).

Community education and partnerships

The health psychologist will work to educate the community and develop partnerships to help develop and promote a need for a larger-scale community health plan. This may require the assistance of community psychologists as their expertise is in developing these types of relationships. Community psychologists Spoth and Greenberg (2005) state that there are different ways that scientists (psychologists, physicians, nutritionists) communicate and measure success in comparison with practitioners (business leaders, school board of directors, politicians) and these differences need to be understood upfront when starting a social change initiative.

Barriers to Success in Boulder County

Besides the communication and expectation gap between practitioners and scientists that will have to be addressed through upfront planning, community common goal identification, and stakeholder identification, additional barriers to success could arise while implementing the obesity prevention program (Spoth & Greenberg, 2005).

Culturally

Winter (2005) explained that the manner in which our communities are structured could be a barrier for success for preventing obesity in children because society has made it easy not to exercise. For example, within two miles of Lafayette Elementary School there is a McDonald's, Burger King, Chinese restaurant, a dry-cleaner, a car wash, and two gas stations, all which are drive through or do not require movement more than one foot away from a car door to receive goods and services. Therefore, the community needs to reach out to build a culture of activity rather than passivity (Day, 2006).

Politically

Interventions for ethnic minorities and low income populations must be addressed and this may be best handled by the political leaders of the community. Political leaders need to understand that the rates of obesity are disproportionately high in the parts of our community that have low income and for all ethnic minorities (Kumanyika & Grier, 2006). Legislatures should take advantage of programs already in place in Boulder County to reach out to our ethnic minorities and low income populations so that the message is reinforced that obesity is especially important to overcome in these communities. Policy-makers should ensure that they treat obesity prevention as an important issue for the county of Boulder and understand its economic and financial implications for the long term to help close the gap of obesity dispersion (Kumanyika & Grier, 2006).

Economically

Economically there is a relationship between poverty and obesity and this social change proposal does not assume to be able to fix poverty (Martin, 2005). There are

larger issues such as addressing the fact that foods, loaded with calories yet lacking nutritional value, are cheaper and purchased more frequently by those in lower socioeconomic status (Martin, 2005). Changing the ease of purchasing fresh food at a lower cost should be addressed on a national level. For the purpose of this functionalism based social change the knowledge that the relationship between cheap food, poverty, and obesity exists and that it could be a long-term barrier to success if families do not work to restructure their budgets to afford for the more nutritious foods (Daniels, 2006).

Potential Positive and Negative Outcomes

Obesity is a serious health issue yet it is surrounded with social sensitivity, denial, and fear of offending someone who suffers from the disease. Many people do not believe that obesity is an illness, let alone an issue that should be addressed psychologically and physically with a social change initiative. Increasing the understanding of this illness by confronting it and applying intervention upfront will help decrease this disorder and help address the fact that many people do not feel obesity is a priority and will not be interested in supporting the social change.

Potential negative unintended consequences of the obesity prevention program

Children or adolescents who could be diagnosed with this disease may become confrontational or antisocial. It is very important to develop intervention strategies for children or parents who may become distressed by a diagnosis and help the children to not feel alienated or confused (Tolan, Guerra, & Kendall, 1995).

An additional unintended consequence could be frustration from taxpayers that are not interested in this program. Any such proposal of actions to change the risks of developing weight related disorders or reversing them will require school districts to

absorb the cost of health psychologists and other professionals into their budget and since these are public schools, the tax payers will have to foot the bill. So, legal and political processes will need to be accessed in order to ensure the success of the program.

Legislation would have to be adopted allowing for the promotion of child and family wellness programs to be incorporated into the school district's budget (Prilleltensky & Nelson, 2000). The prevention of obesity is critical for this generation and future generations; however, the legal and political system are hard to maneuver through so politicians would need to support any local improvements. If a child is found to be morbidly obese by a health psychologist or medical doctor, child maltreatment charges could be investigated and this would require the involvement of lawyers which would not be a preferential way to change systematically behavior patterns of families and children who are obese (Prilleltensky & Nelson, 2000). Rather, families need to be educated and not fearful of legal prosecution because of their influence on their children. This can be achieved by understanding the benefit of universal programs that prevent the maltreatment of children so that a healthy intervention in the family, with their permission and with caring health psychologists, is welcomed and understood.

Potential positive unintended consequences of the obesity prevention program

A potential positive consequence of the obesity prevention program could be that the community of Boulder County will grow closer in terms of networking with each other and tackling other community issues. Community partnerships also can work together to create safer neighborhoods and decrease crime rates (Day, 2006). Additionally, body image among children, whether obese or not, could be improved and this could decrease future eating disorders and rates of mental health disorders or

depression as they enter their teenage years through adulthood (Power, 2003).

Additionally, encouraging the Hispanic population and the African-European-American populations to work together and have their children play together will have positive outcomes for the community as a whole.

Ethical Implications

Psychologists need to be aware of how important their contributions can be and how they can raise awareness of individuals to greater social problems (Prilletsenky, 1997). Ethically psychologists should have a concern about limiting the benefactors of grants to only those in low socioeconomic statuses. There are a great deal of children who fall in between the lines of poor and lower-middle classes and their parents may not have enough expendable income to allow their children to participate so all children should be allowed to participate in this obesity prevention program.

An additional potential ethical challenge in Boulder County is the knowledge that judgment could be placed upon an child or family who has genetic disorders, socioeconomic challenges, or non-voting rights because they are not legal citizens and therefore, they have less control on their ability to participate in wellness programs or access to appropriate medical care. However, there are also ethical repercussions that medical and scholastic professionals face when they avoid teaching families about how to prevent or reverse behaviors that contribute to obesity in children regardless of status.

Lastly, from an ethical perspective, psychologists and school personal must make sure that they do not present this program in a manner that sets unrealistic weight loss goals or disease prevention guarantees to the participants.

Proposal Evaluation

Evaluating the success of this proposal can be completed by continuously monitoring the body mass index of the children in Boulder County, Colorado, reassessing the exercise rates of the children on a bi-annual basis and the nutritional choices of the children, and monitoring the ongoing participation levels of the families in the programs over the long term. Additionally Boulder County can measure how it compares to a program called Healthy People 2010 which was launched nationwide by the U.S. Department of Health and Human Services and promotes increased physical activity, nutritional health, and reduction in chronic weight-related disease (Garcia, Garcia, Floyd, & Lawson, 2004). Although Healthy People 2010 focuses on people of all ages Boulder County should have an overall goal that is not specific to age group of promoting the social change of preventing obesity across the board.

Riley (1997) determined that if a social change program is able to be reproduced and repeated in multiple communities that this is good evaluation metric to demonstrate that the social change initiative is a success. Therefore, a piloted obesity prevention program that is successful should also be able to be replicated and redeployed in other Colorado communities. By using the theory of functionalism, this social change can be achieved in Boulder County in both a systemic and independent manner to promote obesity prevention for children in this community (Hustedde & Ganowicz, 2002).

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