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Examining the role of youth empowerment in preventing adolescence obesity in low-income communities

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ABSTRACT

Introduction: Youth empowerment programs have increasingly gained attention in public health as emphasis shifts on children and adolescents as decision makers in their health and well-being. Adolescence obesity is among the public health concerns that require more active engagement at individual and community level while empowering adolescents to take charge of their own health. This study examines the influence of youth empowerment on nutritional and physical activity factors associated with adolescence obesity.

Methods: Data were gathered through a self-administered survey among adolescents (N = 410) ages 11–15 years in three U.S. States - Kansas, Ohio and South Dakota.

Results: Findings show that youth empowerment significantly influences adolescents' self-efficacy, perceptions for healthy food choice, healthy eating, attitudes towards physical activity and the overall motivation for health. Gender differences exist in adolescents' self-efficacy for physical activity whereas ethnicity played a role in perceived youth empowerment and perceived barriers to healthy eating. Age was also a significant contributor in efficacy for healthy food choice and perception of healthy food availability.

Conclusions: This study suggests more focus on youth empowerment in interventions that seek to reduce obesity and improve adolescents' overall health by creating environments where they can play a more active decision-making role. With empowerment, adolescents are more likely to be motivated to adopt healthier dietary habits and engage more in physical activity. Further research would establish the impact of youth empowerment on obesity reduction and other public health problems that impact children across ages.

1. Background

In the past, programs for behavior change on the individual level within a youth program or school have seen limited success. This

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may be due to the fact that programs did not include change within the environmental settings and youth's participation (Branas & MacDonald, 2014). Specifically, programs often lacked the opportunity for youth empowerment (Zimmerman et al., 2018). In other words, the youth do not only lack a voice within the system of change but also lacked a platform to utilize their voice as well. Empowerment, which is defined as a process through which people gain control over their lives so they can make decisions to improve their existing state (Rogers & Singhal, 2003), has been promoted in public health especially among vulnerable and marginalized populations. It is the process of acquiring power for oneself or making the acquisition of power possible for others, providing them with newfound choices and voices (Braithwaite, 2000).

According to Zimmerman (2000), there are three interconnected empowerment mechanisms. The intrapersonal component, which entails the youth believing that one has some control in life and can make a difference. The second mechanism is the interactional or awareness of what variables or forces can influence one's life. This mechanism also requires the youth to understand what is needed to make one's goals a reality. Finally, the third component is the behavioral component. This component specifically applies to the youth's actions and how they can affect change within the environment.

Increasingly, youth empowerment programs (YEPS) have gained attention from practitioners and funders that focus on engaging highly in youth-driven decision-making processes that aim at strengthening positive attitudes, skills, and behaviors that improve their health and well-being (Morton & Montgomery, 2013). Definitely, empowerment includes sociopolitical control. This type of control has been defined as including perceptions of self-efficacy, motivation, competence, and perceived control with the sociopolitical area. Zimmerman and Zahniser (1991) suggested sociopolitical control as a way of understanding and measuring the intrapersonal component of psychological empowerment. Furthermore, studies in public health and health education (e.g., Holden, Evans, Hinnant, & Messeri, 2005, 2004; Ozer & Schotland, 2011), youth development (e.g., Russell, Muraco, Subramaniam, & Laub, 2009) and community psychology (e.g., Kohfeldt, Chhun, Grace, & Langhout, 2011) have investigated sociopolitical control as a component of psychological empowerment among young people.

Other studies have focused on the concept of locus of control, the belief system regarding who controls behavior and life events (Drummond, Barnard & Mehnert, 1985), as an important explanatory variable in understanding adolescence behavior (Ahlin, 2014). This is based on the understanding that adolescents with an external locus of control, the belief that they do not control outcomes associated with their behavior, are more likely to engage in risky behavior whereas internal locus of control contributes to positive youth outcomes such as general well-being (Ahlin & Antunes, 2015). This is particularly important in addressing serious health issues that impact the youth and where their engagement in preventive decision making is crucial.

Adolescent obesity is among the serious public health concerns impacting youth and where their active engagement and informed decision-making are crucial. In the United States, about 17 percent of adolescents ages 12–19 years are categorized as overweight (Ogden, Carroll, Kit, & Flegal, 2012). Research shows that children born in the year 2000 who are now in their adolescence, or later have a 1 in 3 chance of developing diabetes (Shubrook, 2011). The problem spans across state boundaries although racial and ethnic groups are disproportionately impacted where Hispanics and African Americans account for 25% and 19% of childhood obesity, respectively (Crespo et al., 2012; Wang, Orleans, & Gortmaker, 2012). Behavioral, social-economic, and cultural factors contribute to obesity, but there are also environmental factors including inadequate resources for healthier diets and/or safe natural or build environment for physical activity that make low-income communities vulnerable (Li et al., 2014; Sallis & Glanz, 2006).

The high obesity prevalence in the ethnic and limited-resource communities foreshadows a public health crisis as most obese children and adolescents tend to become obese adults (Rosenkoetter & Loman, 2015). There is evidence supporting obesity in adolescents tracks into adulthood and is associated with higher risks of morbidity and mortality (Robbins, Pender, Ronis, Kazanis, & Pis, 2004). Such risks include serious obesity-related health consequences among adolescents, some of which include cardiovascular, endocrine, renal, respiratory, musculoskeletal, pulmonary gastrointestinal disease and psychosocial issues which include poor self-esteem, negative self-image and lower quality of life (Merikangas, Mendola, Pastor, Reuben, & Cleary, 2012). The elevated risk of chronic diseases has been associated with premature death (Criss et al., 2016) and with lifespans that are shorter than their parents for the first time in modern history (Bond, Richards, & Calvert, 2013, Olshansky et al., 2005; Shubrook, 2011). There are also increased costs in healthcare associated with childhood obesity which increases the burden among affected individuals and the society at large (Daniels, 2006).

Despite the identified health risks, adolescence health care remains a challenge compared to that of adults not only due to their rapidly evolving physical, intellectual and emotional development but also because they require a specialized skill set for interpersonal communication and interdisciplinary care (Salam, Das, Lassi, & Bhutta, 2016). Researchers and practitioners have put emphasis on prevention strategies which include changing the obesogenic environment that contributes to the high prevalence of childhood obesity in low-income and ethnic communities (Rosenkranz & Dzewaltowski, 2008; Rossen, 2014) while promoting built environment in communities to address sedentary lifestyles among children of various ages (Sallis & Glanz, 2006). The Centers for Disease Control and Prevention (CDC, 2016) has suggested the use of school-based prevention strategies that include policies to enhance physical activity and healthier diets, as well as collaborations with local communities in developing strategies to support healthier food environments.

Others put emphasis in awareness and nutrition literacy, which can be achieved via various communication and education strategies that integrate a technology component (Nutbeam, 2008; Silk et al., 2008) to enhance knowledge and understanding of health risks associated with obesity. As Mallya, Mensah, Contento, Koch, and Barton (2012) suggests, it is critical to not only encourage youth to think about the personal benefits of healthy choices but to engage them in the role of reducing the obesity epidemic. A knowledge-practice gap (Rogers, 2003), however, persists in the adoption of healthy lifestyles in preventing overweight and obesity among Americans across age groups. As Anderson, Winett, and Wojcik (2007) points out, people living in the U.S. are generally aware of the health consequences of overweight and obesity and there is a growing understanding of dietary