

Week 4 Assignment: Evidence Synthesis

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NR716 - Analytic Methods

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This paper's content is a synthesis of quantitative and non-research evidence related to the practice problem (childhood obesity) and the potential positive impacts of community-based interventions. According to Xu et al. (2017), childhood obesity results from chronic calorie surplus among children because of energy intakes that exceed the expenditure demands for homeostatic maintenance, growth, and physical activity. Correspondingly, Otterbach et al. (2018) recommend community-based interventions, which include equipping parents and guardians with strategies to help their children adopt those behaviors that can assist the latter in healthy weight promotion.

Analysis of the Practice Problem

Obesity is a precursor to life-threatening comorbidities. According to Pathirana et al. (2017), obesity predisposes children to cardiovascular and metabolic complications in adulthood. Camacho et al. (2019) aver that the complications affect the pulmonary, digestive, renal, and immune systems, which places children at risk of contracting such issues as nonalcoholic fatty liver disease, arterial hypertension, type 2 diabetes, and obstructive sleep apnea. These problems can significantly shorten children's life expectancy and lower their quality of life. Since obesity stems from a chronic positive energy intake, the condition is preventable by ensuring effective calorie utilization to avoid any surpluses. Such simplistic measures can save children from early deaths. Thus, educating parents and the community about effective weight management strategies is significant for a public health improvement.

The prevalence rates are high, which signifies the potential for significant economic ramifications. For example, in the United States, 17.9% of children aged between 6 and 11 have

their BMI greater than or equal to the 95th percentile for their age mates, which means obesity (Xu et al., 2017). A report by Robert Wood Johnson Foundation (2020) confirms that the national obesity rates for the youths aged between 10 and 17 were 15.5% in 2018-2019, for students in grades 9-12 stood at 15.5% in 2019, and for children and youth aged between 2 and 19 stood at 19.3%. The Milken Institute (2018) values the economic impact of obesity and overweight on the U.S. economy at over \$1.7 trillion, which includes \$403.7 billion in direct healthcare costs and \$1.24 trillion in lost productivity. Failure to reduce the prevalence rates will see these costs rise significantly. Therefore, urgent interventions are required because these costs directly affect patients and the economy.

Evidence Synthesis

Managing childhood obesity requires proactive actions from those in direct contact with children for extended periods. This salient theme emerged from most of the studies, both empirical and non-research, that were reviewed for this project. For instance, Xu et al. (2017) assert that their program involved training parents and their children with the help of pediatric dietitians, child activity specialists, and public health professionals. Similarly, Otterbach et al. (2018) undertook an 8-week community-based approach that recruited 94 parents of children aged between 3 and 11 years. Additionally, Heerman et al. (2018) also undertook a quantitative study on the implications of community-based behavioral interventions. In their work, Heerman et al. (2018) educated parent-child pairs on how to choose healthy foods, snacks, and groceries, how to portion their meals, and how to become physically active families. All these studies reveal parent's or caregiver's role in preventing and remedying childhood obesity. Community-based interventions also accommodated for joining parent-children sessions so that the entire family could remain healthy. The positive results from the mentioned studies confirm the need to