

Abstract

Food is essential for all individuals, especially children due to their continuing growth, therefore, it is believed more focus needs to be put into school lunches. The proposed study will be used to determine how parents feel regarding the meals their children consume while attending school. This exploratory study will attempt to provide 50 parent's opinions regarding their children's lunches to provide information for future possible studies. The information provided from the participating parents will help determine if there is any variance between rural and urban schools. The expected outcome is to have parents report issues regarding the food items their children consume. The expected issues include taste, quality, and price. A future possible study regarding the nutritional values within the school system can be designed.

Introduction

Nutrition is essential for all individuals, especially children due to their continuing growth. Nutrition should be an essential component of every individual's life. Beginning to focus on nutrition at an early age can help set a successful path for the next stages of their lives. Overweight children are also more likely than their normal weight peers to experience lower self-esteem, depressed mood, body dissatisfaction, discrimination, negative stereotyping, and social marginalization (Nollen et al., 2007). Children who are overweight, even if they lose the weight as adults, can still suffer from effects from their childhood obesity later in their life. These effects can include diabetes, heart disease, and sleep difficulties. Several studies suggest that rural communities are at a higher risk of becoming overweight or obese (Davis et al., 2011). In the study done by Davis et al., they mentioned this data could be linked to limitations such as cultural tendencies along the lines of more screen time and less exercise, as well as structural limitations such as limited resources and a lack of nutrition education. A study published by Davis et al., assessed the data from the National Health and Nutrition Examination Survey, NHANES, within the years of 2003 through 2006. The main variables reviewed within this study consisted of obesity, residency, physical activity, dietary intake, socioeconomic status, and electronic entertainment. Along with several other studies, this study showed that rural children are significantly more likely to become obese compared to urban children.

Although rural children are more at risk of obesity than urban children, all these children have one thing in common which is that they all attend schools. Studies show that even when schools offer healthy items such as fruit juices, vegetables, and low-fat milk, they are less available, as well as less likely to be purchased than other foods and drinks. In 2004 the federal government passed the Child Nutrition and Women, Infant, and Children (WIC), which forces schools with federally funded meal plans to initiate a wellness policy (Nollen et al., 2007). Although this policy focused on nutritional guidelines, this did not eliminate the issue of having less healthy options still available to students. A study published by Davis et al., focuses on the school personnel to give their perceptions on the school environment and its impact on childhood obesity (Nollen et al., 2007). All principals, as well as food dieticians, agreed that obesity was an issue, however, did not consider their school to have that problem. The majority of the principals also believe that schools have an influence on obesity and child's health, however, they are not the cause, therefore, they cannot be the solution. Principals also believe that student health is important, however, not one of the schools' main priorities. Regarding the government mandates, principals believe they could be helpful if instituted correctly. Food service personnel believed external factors, such as the children's home environment, was the main issue.

The federal government has made mandates, such as the WIC policy to ensure schools provide adequate meals for their students, however, there are some concerns regarding the nutritional value of the foods and beverages offered to students. The concerns may stem from foods being offered to the students that do not follow the administration of the Food and Nutrition Service. All the studies mentioned above support the claim that nutrition is essential and should be provided for students in their meals provided by the schools. All types of communities should be able to provide sufficient meals to the children, no matter the ethnic groups involved or individuals with varying socioeconomic status. Despite the National School Lunch Programs (NSLP) goal of treating nutrition disparities, recent studies from the lab group found that there is the possibility for significant variation in nutrient content and dietary quality (DQ) of school lunches, while meeting NSLP nutrition standards (Joyce & Rosenkranz, 2020). The goal of this study is to determine if there are any variations between urban and rural schools. The study attempts to determine if there are any variations between locations regarding cost, quality, and nutrition.

Methods

Participants

For this exploratory study we are reaching out to the people who know their school system, as well as what is provided, very well. These individuals are the parents of those students who attend the schools. Parents that participate must have a child attending middle school, this allows for the parents to have an adequate understanding about the lunches, as well as how their children and themselves feel about them. The goal is to gain knowledge from 50 parents in a rural school district, as well as an additional 50 parents from an urban school district.

Materials

We will use a random sampling to choose 50 participants from each location, rural and urban. Questions within the survey will consist of open ended, as well as close ended questions. Open ended questions will provide us with demographic data, as well as give the participants an opportunity to explain specific answers. This allows us to give the school districts these open-ended questions to explain the issue and allow them to learn and fix any discrepancies. Close ended questions will be answered using a Likert scale from 1 to 5. 1 will be considered not acceptable and 5 will be considered superior.

Procedure

We will send out surveys through mail to residences within each school district. These survey questions will ask the parents their opinions on school lunches and if they think they need reviewing. Questions will be regarding topics such as price, taste quality, as well as nutrition quality. Obtaining data for both geographical locations will allow us to determine if there is any variance between them. These opinions will allow us to identify if there is an actual issue regarding quality, cost, and taste satisfaction.

Predicted Results

We predict to find a discrepancy between urban schools and rural school. We also predict to have complaints regarding the topics that we surveyed, such as taste quality, nutritional quality, as well as price. We will determine any statistical significance by performing a standard t test. This test will combine all scores of the questions answered on the survey from each geographical location. This will allow us to compare the scores of each location to determine if there is any variance between them.

Discussion

This exploratory study will help determine if there are any variations between rural and urban schools. This is important because variables such as obesity, residency, physical activity, dietary intake, socioeconomic status, and electronic entertainment all vary between rural and urban locations. The Chi-squared test will show any variance between urban and rural schools. This variance will stem from three variables we surveyed about such as price, taste quality, as well as nutrition quality. This study will also provide some insight on the scale of obesity in each school setting. We expect the answers given within the survey, as well as the expected results, to suggest that obesity rates would also be different between the two locations. This is important due to recent economic data that indicates that overweight/obesity costs the U.S. healthcare system over \$100 billion dollars annually (Davis et al., 2011).

References

- Davis, A. M., Bennett, K. J., Befort, C., & Nollen, N. (2011). Obesity and related health behaviors among urban and rural children in the United States: Data from the National Health and Nutrition Examination Survey 2003-2004 and 2005-2006. *Journal of Pediatric Psychology*, 36(6), 669-676. <https://doi-org.ezproxy.libraries.wright.edu/10.1093/jpepsy/jsq117>
- Delva, J., O, M. P. M., & Johnston, L. D. (2007). Availability of More-Healthy and Less-Healthy Food Choices in American Schools: A National Study of Grade, Racial/Ethnic, and Socioeconomic Differences. *American Journal of Preventive Medicine*, 33(4), S226-S239. <https://doi-org.ezproxy.libraries.wright.edu/10.1016/j.amepre.2007.07.018>
- Joyce, J. M., Rosenkranz, R. R., & Rosenkranz, S. K. (2020). Evaluation of Variability in Dietary Quality of School Lunches Meeting National School Lunch Program Guidelines by Socioeconomic Status and Rurality. *International Journal of Environmental Research and Public Health*, 17(21). <https://doi-org.ezproxy.libraries.wright.edu/10.3390/ijerph17218012>
- Nollen, N. L., C. A Befort, C. M. Daley, E. F Ellerbeck, Jasjit S Ahluwalia, & Patricia Snow. (2007). The school food environment and adolescent obesity: qualitative insights from high school principals and food service personnel. *International Journal of Behavioral Nutrition and Physical Activity*, 4(1), 18. <https://doi-org.ezproxy.libraries.wright.edu/10.1186/1479-5868-4-18>

