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Influence of Race, Religion and Socioeconomic Status on the Diet and Physical Activity of a Household

Kaitlyn Murphy
Sacred Heart University

Juliana Merighi
Sacred Heart University

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Names: Kaitlyn Murphy & Juliana Merighi

Sacred Heart University, Fairfield Connecticut

Introduction

Health problems due to childhood obesity are rising every year, and contribute to $127 million/year in annual hospital costs. Over fifteen percent of children 6-11 years of age are classified as obese. [1] Proper diet and physical activity have been linked to improving health in individuals. There are several social determinants that pose a limitation to proper health. This includes socioeconomic status (SES), education, employment, physical environment, social support, race, and religion. In this current study, the three factors that were mainly investigated were race, religion and SES. In several studies, a significant influence of race was found regarding the diet and weight/ BMI of youths, as well as their level of physical activity and promotion of a healthy lifestyle.[2] For example, Shatenstein and colleagues found a number of religious practices to be associated with lower rates of mortality due to healthy diets that lower the risk of digestive tract cancers, diabetes hypertension, urologic cancer, coronary heart disease, and other chronic diseases.[3] Research has shown an inconsistent role of religion affecting the amount of PA a person does. While some studies show PA is more prevalent in religious groups, there is no found true association.[4] Verstraeten and colleagues found that a family's access to healthy foods becomes limited by low SES. [5] Kaufman-Shirqui and colleagues suggest that there is a connection between one's eating habits/behaviors and their income.[6] Research has also shown that in addition to education, time constraints and accessibility in their location, a person's socioeconomic status can contribute to 24-46% of the differences between those who are active versus inactive.[7]

Purpose

Researchers find that both race, religion and socioeconomic status affect children's eating habits and physical activity levels. The purpose of this study is to determine specifically which factor has the greatest influence on children's diet habits and PA so that future interventions know the relationships between these variables.

Methods

Design: Cross Sectional examination of variables via collection of surveys among families representing different races, SES levels and religions

28 males and 158 females completed this survey. All of the participants were parents and varied in race, ethnicity, religion and socioeconomic status.

Procedure:

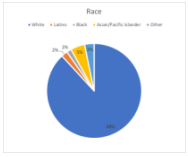
A survey was used to assess these participants. The survey included 10 questions that determined the eating and exercising habits of families compared to their race, religion and socioeconomic status. The survey was posted on social media as well as sent out to the faculty and staff of Sacred Heart University. This study was approved by the IRB committee of Sacred Heart University.

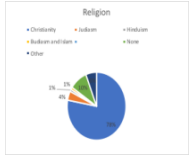
Analysis:

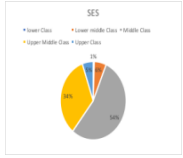
A Likert scale was used to analyze the data collected. Each answer was assigned a number. Descriptive statistical assessment of mean scores were then compared. Correlations were computed assessing associations between SES and consumption of fruits and vegetables as well as frequency of physical activity.

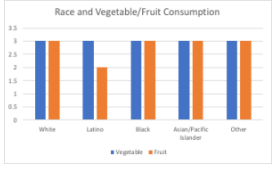
Results

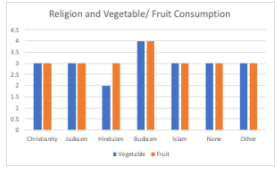
28 males and 158 females completed this survey. On average, most participants agreed that they give their children fruits and vegetables to eat (2.94 and 3.16, respectively). For physical activity, the average response was frequently (2.19). Majority of the respondents were white, Christian females coming from a middle class status. A Pearson correlation test was also performed. Because the same was not varied enough for race and religion, a correlation test was not performed on these variables. For SES compared to vegetable and fruit consumption, the R value was found to be 0.0401 and 0.0546, respectively. While these is a positive relationship, the value is weak. Regarding SES and physical activity, the R value was found to be -0.1793.

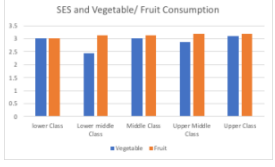




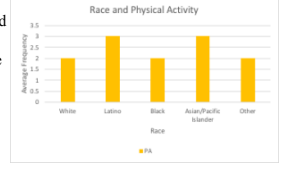




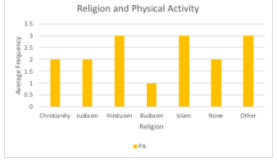


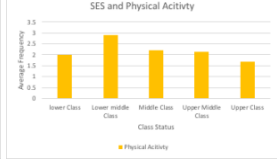


KEY:
1→Strongly Disagree
2→Disagree
3→Agree
4→Strongly Agree



KEY:
1→ Very Frequently
2→ Frequently
3→ Somewhat Frequently
4→ Not at All





Discussion

The results that were collected were mainly white Christian families. For this reason, the data collected for race and religion are limited and no real conclusions can be made. Studies have shown that Hispanics and African Americans overeat because they consume foods higher in saturated fats and sodium [2]. It has also been found that religion could be linked with healthier diets and lower risk of chronic diseases[3]. In this current study, it was found that only Latinos had a lower fruit consumption. Additionally, Buddhists had the highest fruit and vegetable consumption while Hindus had the lower vegetable consumption. A similar occurrence happened with physical activity. It was found that Latinos had the lowest frequency of physical activity. This aligns with previous research which found that 52% of white men were physically active while only 42% of Hispanic men were physically active.[8] For religion, the data was inconsistent similar to other studies. For SES, it was found that lower class and lower middle class had the lowest values of average vegetable and fruit consumption while upper middle class and upper class had the highest average values. This corresponds to current research in that lower socioeconomic status is related to poorer diets due to the fact that healthier foods tend to be more expensive while foods higher in fat are more easily afforded.[9] Regarding physical activity, the average frequency of physical activity increased with SES. However, lower class had a higher frequency compared to lower middle class and middle class. This could be attributed to the fact that only one individual said they were of lower class. Other research has shown that children living in low SES neighborhoods are 52% more likely to watch television two or more hours per day and 65% more likely to use the computer for recreational use two or more hours per day hose that live in a higher SES area were more likely to report having five or more days of physical activity per week.[10] For all three Pearson correlation tests, the R values found were weak. However, there was an indication that some positive relationship does exist between SES and fruit and vegetable consumption. Additionally, the PA value was negative indicating that as SES increased, the frequency of activity increased.

Conclusion

The results collected for this study were inconsistent for race and religion because of a small sample size and lack of variety. For this reason, the major limitation in this study was the lack of diversity among respondents. The results found for SES were more reliable because the sample was more varied. Upper classes had a higher consumption of healthier foods and a higher frequency of physical activity. Future interventions should focus on improving the disparity in food and facility access between social classes.

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