Obesity Among the Amish Population

An Honors Thesis (HONORS 499)

by

Kristin Gibson

Thesis Advisor
Dr. Jayanthi Kandiah

Ball State University
Muncie, Indiana

April 2013

Expected Date of Graduation

May 2013
Abstract

Over the past couple of years, obesity has become a growing problem in America. With electronic equipment increasing in popularity, many wonder if this is attributing to the obesity epidemic. To get to the bottom of the problem, many researchers have attempted to study the Old Order Amish population. This religious group shuns the use the electricity, automobiles, and other modern electronic advancements. By doing so, they relate themselves closely with our ancestors. This makes them attractive to researchers as it enables them to study the lifestyles of people in the pre-industrial era.

Acknowledgements

I would like to thank Dr. Jayanthi Kandiah for advising me during my completion of this project. Her guidance through this project, as well as throughout my undergraduate career, has been greatly appreciated.
Obesity is a major area of concern in America. Although the prevalence of obesity is now beginning to plateau, it remains unacceptably high as a result of recent trends.\(^1\) According to the Centers for Disease Control and Prevention, over one-third of American adults (age 20 and older) currently qualify as obese.\(^2\) According to these CDC statistics, adults aged 60 and older are more likely to be obese than younger adults; and there is no significant difference between obesity in men and women. The statistics also state that 16.9 percent of American children and adolescents aged 2-19 are considered obese.\(^2\) The current obesity epidemic greatly affects the country as a whole. As a dietetics student, the obesity problem in this country is of great interest to me. In the future, I would like to work toward the remedial of this problem. In order to address this problem, however, we must first know exactly where the problem lies. For this reason, I investigated a population with lives similar to those of our ancestors who survived with little incidence of obesity.

The term ‘Amish’ refers to a religious group who, after splitting from the Mennonite religion, ventured to America from Europe. The Amish believe in self-help and community support and, as a result, do not accept help in the form of insurance or state benefits. Often, followers of the Amish religion avoid technology, as they view it as being damaging to the community and the surrounding environment. Instead, they focus on harmonizing with nature by living in rural communities, tending to animals, and utilizing the land. There are many different groups of Amish, each being completely independent and living according to their own set of norms. The strictest group is referred to as the “Old Order Amish”.\(^3\) Followers of the Old Order Amish group refrain from driving automobiles or using any electrical appliances.\(^4\)
Miraculously, the Old Order Amish group has managed to avoid the affects of the obesity epidemic. The obesity rate among this Amish population is only four percent, compared to the 31 percent obesity rate maintained by the United States’ general adult population. Although this population carries the same obesity gene as most other Americans, their prevalence of obesity is much lower. Since the difference cannot be attributed to genetics, it can be assumed that the lower prevalence among the Amish population is a direct result of their lifestyle.

When their diet is taken into consideration, the low obesity rate of the Old Order Amish population comes as a surprise. Hearty, homemade meals are characteristic of the Old Order Amish. According to a study found in the January 2004 issue of Medicine & Science in Sports & Exercise, the Amish diet is “quite high in fat and refined sugar”. Often, the Amish diet contains an abundance of high-fat dairy products, meats, and baked goods. Many would argue that the diet of the average American looks similar: high in fat, refined sugars, meats, and sweets. So, if the Amish diet isn’t what’s keeping them from obesity, what is?

The choice of the Old Order Amish to shun electricity and other modern conveniences inevitably alters their lifestyle. Due to this decision, they live much like our early ancestors. Men often participate in farming and other outside work. They can often be found tilling soil, collecting and tossing bales of hay, and caring for their animals. Women, on the other hand, are often found working inside. Their normal jobs consist of cooking, cleaning, and doing laundry. Although some of these chores seem minuscule, we often forget that they do not take advantage of the modern conveniences that make these jobs much easier. Laundry, for example, would be done with a hand-crank machine and mixing
ingredients together would occur manually rather than with an electric mixer. Many people discredit how much energy is saved through the use of these modern conveniences. Because the Amish population does not take advantage of these tools, they expend more energy and, thus, burn more calories. On the contrary, the majority of Americans make use of technological advancements that make their lives easier. Washing machines, automobiles, and electric kitchen mixers are all examples of modern conveniences that conserve people's energy. Because these tools reduce the amount of effort necessary, they lessen the amount of calories that people burn throughout the day. These advances in technology have made modern-day Americans a much more sedentary population.

A research article, published in 2004, studied 100 adult subjects in an Amish farming community in Ontario, Canada. The adults were asked to wear pedometers and record their physical activity over the course of a week. The men recorded 10 hours of vigorous work throughout the week and averaged over 18,000 steps per day. The women, on the other hand, averaged over 14,000 steps a day and reported roughly 3 hours of vigorous work. According to this study, these Old Order Amish participated in "six times as much physical activity as did their 'modern' counterparts". The Old Order Amish live lifestyles in which they are constantly active. For this reason, they expend much more energy than the technology-using American population. It was also noted that of the study's 100 subjects, 0% of the men and 9% of the women were obese.

Among children, the trends are no different. Modern technological advances have changed the lifestyles of many American children, and may have played a contributing role in the recent obesity epidemic. Amish children have lately been a growing population of interest. Their resistance to technological change is attractive to researchers, as it allows
them to see how our broadened use of technology has affected our health. Children of the Old Order Amish community still participate in activities such as walking to school, completing chores around the house, tending to animals, and actively playing. These Amish children refrain from using the video games and television that are likely to blame for today’s pediatric obesity problem in America. Although they are less likely to participate in organized competitive sports, children of the Old Order Amish community have still proven to have higher physical activity levels than children with a more technologically enhanced lifestyle. The average American child spends much of their free time in front of a screen; computers, televisions, and hand-held video games have become their primary method of entertainment.9,10 Both Amish and Mennonite children tend to be much leaner than their more contemporary counterparts.9

Professionals have caught onto these trends and have learned that technology may be the best way to reach the younger population. The Cooper Institute and the Texas Department of Agriculture have designed a new three-dimensional video game, The Quest to Lava Mountain. This game was designed to instill healthy eating behaviors in today’s children (ages 8-12). The game’s foundation lies in its five core principles: 1) food is fuel; 2) food and physical activity are related; 3) healthy foods provide nutrients, which are key for optimal performance; 4) consume a variety of healthy foods in moderation; and 5) physical activity is key for optimal health. In the game, the child is required to make appropriate food and physical activity choices in order to succeed. In the testing of this game, a sample of 19 elementary school students in the state of Texas played and rated the game. Overall, the children reported the game as being challenging, engaging, enjoyable, and containing clear goals. Researchers have discovered that technology, particularly video games, are the
best way to reach children. They are using this data to their advantage and have begun creating games that may alter the lifestyles of American children.\textsuperscript{10}

As can be seen, obesity is a problem that is plaguing the United States today. However, the Amish population seems to be exempt from this epidemic. Through limited technology usage, the Old Order Amish population is able to keep themselves physically fit. American adults and children should learn from this example and reduce the amount of technology in their own lives. Reduction of screen time and increasing physical activity would do wonders for the American population.
Works Cited


