2021

The Relationship between Optimism and BMI in Generation Z – An Exploratory Investigation.

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Honors Thesis

Georgia Southern University

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Introduction

Optimism is the mindset to hold positive and favorable expectations towards the future (Elovainio, et al., 2017). The typical optimist is a person who holds and applies the characteristic of optimism towards daily life. There is documented evidence of many physical and mental health benefits (Vidal & Dalley, 2013). Optimists are known to have a higher expectancy of accomplishment when completing tasks or goals which are normally challenging (Cappelleti, 2015). Having optimism has been found to help people attain goals and face through adversity (Benyamini & Wurm, 2014). Optimism globally is a trait which researchers have commonly found to help people physically and mentally (Vidal & Dalley, 2013).

Research has demonstrated optimism is essential to have for overall well-being (Vidal & Dalley, 2013). Attitude towards the future and life make a difference in one's life. Optimism is important to have since it can affect mental health which can alter overall health. One study demonstrated optimism can help to lower overall BMI (Elovainio, et al., 2017). Optimism showed to have a positive relationship with a healthy diet and a low body mass index. BMI was measured through height and weight while optimism was calculated through the Scheier and Carver Life Orientation Test-Revised. This study demonstrates how having optimism allows for the motivation to have a healthy diet as well as exercise in order to lower the BMI. The research also looked long-term which showed high optimism in young adulthood demonstrated a negative relationship with BMI as an older adult. Optimism also showed to protect against psychosocial stress which can cause a high BMI. This research confirms having a quality as simple as optimism allows us to be healthier (Elovainio, et al., 2017).

Optimism has been confirmed by research to help stop the spread of obesity (Elovainio, et al., 2017). This state of well-being is able to alter the mind in order to create a positive outlook

on life which has been associated with a lower weight. Optimism has been shown to protect against psychosocial stress which is associated with weight gain (Elovainio, et al., 2017). Weight gain creates health problems such as cardiovascular disease or Type 2 diabetes. Optimism has shown through research studies that it actually helps to have positivity in order to have a good overall health (Heery, et al., 2016). Without this sense of optimism, BMI is typically higher than those with optimism. Having optimism takes time; however, once optimism is in full gear, BMI will show to be lower.

Body mass index (BMI) uses height and weight to calculate in order to determine if a person is underweight, normal, overweight, or obese. A common goal around the world is to have a lower BMI for cosmetic or health purposes (Cappelletti, et al., 2015). People will go to the extremes to have a lower weight. In order to lose weight, there is usually a goal set which determines personal standards of a "normal weight." One study demonstrated those people who have goals set to lose weight, typically end with having a lower BMI (Cappelletti, et al., 2015). These show optimists tend to have a better outcome with weight loss since optimists tend to handle the challenges better. Optimists are more likely to set an attainable goal which would allow for a better outcome when trying to lower BMI. This study shows optimists tend to have an easier time losing weight (Cappelletti, et al., 2015).

Researchers looked at how and if optimism can help to alter physical and mental effects of ageing (Beyamini & Wurm, 2014). They used a scale to see attitudes the participants had on ageing. One major side effect of ageing is the tendency to gain weight. Optimism was measured with the Affective valence of future time perspective' scale which was developed by Brandstadter and Wentura (1994). The researchers looked at self-related health, physical functioning, and depressive symptoms. As far as results, the people who had a negative outlook

on ageing seemed to have the worst health problems. Optimism showed to decline the rate of the ageing process. The people who scored higher on optimism showed to have the least ageing problem. The researchers found that optimism contributes to awareness of health risks which makes people want to take action to prevent these health risks (Beyamini & Wurm, 2014).

The Circle of Discontent theory is a foundation to explain the concept of obesity. The body works off a homeostatic goal which allows the body to work in equilibrium. When the body becomes obese, it is unable to work in homeostatic balance. The Circle of Discontent (COD) simplifies obesity to a simple understanding. If the body is obese or overweight to begin with, this will cause body dissatisfaction, negative effects on the body, and energy-dense consumption. In return, negative care, dissatisfaction, and energy-dense consumption can cause someone to become obese or overweight. Psychological factors such as emotional distress or anxiety can begin the circle. Physical damage like lack of exercise or nonsufficient eating can play a role on causing obesity (Marks, 2015).

Studies have also shown that gaining weight leads to lower optimism making it harder to lose weight. A specific study was conducted on pregnant women and their attitudes toward pregnancy weight (Heery, et al., 2016). The study tested attitude toward weight gain and then actual values of weight gain. The women who were optimistic had an easier time losing weight after pregnancy and did not gain as much as the women who were pessimistic (Heery, et al., 2016). Even unavoidable weight gain caused problems for the women who did not have optimism. It was difficult to lose the weight as well which demonstrates the important aspect of optimism on BMI.

Other research has found a positive relationship between physical activity and optimism (Brown, Burton, Nicola, & Pavey, 2015). A study looked at research on women of different ages

and the relationship between the amount of optimism and physical activity they get. The researchers calculated the amount of exercise each woman received as well as measured optimism through the Life Orientation Test- Revised (1994). Results demonstrated a positive relationship between physical activity and optimism. The more exercise the woman received, the more optimistic she was. Physical activity also showed to reduce depression. Physical activity helps to reduce BMI as well which has an impact on the amount of optimism one has (Brown, Burton, Nicola, & Pavey, 2015).

Researchers looked at optimism and healthiness in college students. One of the factors of healthiness was BMI and the effects of different BMIs on optimism. Some of the students had "optimistic bias" which is defined as "the tendency for individuals to view themselves as less susceptible than others to a wide range of negative events" (Chock, 2011). Those students who had more optimistic bias are less likely to take preventative measures to reduce BMI; however, these students have a lower BMI to begin with due to optimism. Students who obtained optimistic bias also perceived themselves to be slightly healthier than their friends. Optimism was measured through an 11-point Likert-type scale asking about agreement with certain statements. BMI was calculated through a direct measurement of height and weight (Chock, 2011).

Generation Z is used to describe millennials or the newest "college-aged" young adults. Currently, there is little research on Generation Z as the people born in this generation are younger and have not participated in research. Due to the lack of research, there is little information about these people. There are no long-term studies for this generation which makes it challenging to create a hypothesis or a theoretical foundation when conducting research. This

study allows for more research to be created as well as helps to create a foundation for future studies.

Methods

Participants and Procedures

The participants of this study are young adults in the age range 18-22. In total, there are 2287 participants- 986 male and 1285 female. All the participants attended a southeastern University and were enrolled in required physical activity classes ranging from cardio-based to weight training. The participants were volunteers but were offered extra-credit upon participation. The participants are also classified as being from the Generation Z. The study focused more on school classification; there were 961 freshmen, 579 sophomores, 417 juniors, and 324 seniors with an additional 6 graduate students. Race was another factor of this study which was self-reported. Students self-reported as: 614 black, 1445 white, 57 Hispanic, 39 Asian, 70 biracial, and 48 who reported as another option not listed. Each person participated in the study after acknowledging an informed consent.

Measures

The study is classified as a quantitative, quasi-experimental, cross-sectional descriptive study. The independents variable is the measurement of BMI while the dependent variable is how much optimism the participants have based off of BMI. In order to measure BMI, the participants self-reported their height and weight. The BMI was then calculated from their reports. Participants were given a questionnaire which asked demographic questions as well as questions from the Life Orientation Test (1994) to measure optimism and pessimism. The questionnaire allowed students to answer questions on the satisfaction of the course as well as measuring optimism and pessimism. The Scheier and Carver test has been used in several

different studies measuring and testing optimism. The test contains a series of questions of which the participants can agree or disagree too based off a scale. The questions are based on outlook of life which can measure a tendency to be pessimistic or optimistic.

Data Analysis

The data for this study was collected from all the participants and put into T-test and ANOVAs to determine if there was any significance between Optimism and BMI. Pearson's correlation determined if there was a relationship and the strength of it. SPSS was the system which created the data analysis. The data described the variables of BMI and optimism to have a positive relationship.

Results

The results from this study were pulled from the 2287 participants of the study. Groups distinguishing between gender, age, and race were not formed, and data was run as a whole. According to Pearson's correlation, there was not a significant relationship between BMI and optimism. The Pearson's correlation for the relationship between BMI and optimism is r=-.003. The value demonstrates no relationship between the two values. Due to the result of no relationship between BMI and optimism, different BMI groups were looked at. The relationship of groups classified as healthy, overweight, and optimism between optimism was looked into. Statistically, there was no significant relationship between a specific BMI and optimism (p=.55). The results did not conclude a relationship between optimism and BMI.

Discussion

The results did not demonstrate the relationship expected. With the prior research, it was expected for a positive relationship between BMI and optimism to occur (Elovainio, 2017). It was expected for the more obese and overweight participants to have less optimism (Dalley & Vidal, 2013). Since the results proved otherwise, it allows for further research and questioning to occur. If an individual wanted to work towards a health goal, the more optimistic is to attain the health goal (Benyamini, & Wurm, 2014). The more obese individual would not be able to reach health goals easily as opposed to the normal weight individual. Having optimism is also known to help with completing tasks and goals. Optimists are also more likely to complete challenges (Cappelletti, et al., 2015).

Limitations

With this research, weight and height of the participants was self-reported. This information was never verified. Self-reporting can create a limitation as the height and weight could have not been reported accurately. Inaccurate height and weighs false BMI. Optimism was also recorded through a test of which participants took to essentially self-measure optimism. It is possible participants reported in a way to classify less or more optimistic than the actual amount. Participants were also offered extra-credit to participate in this research. During the optimism test, participants may have rushed through and not thought of each question carefully. If the participants are not fully engaged in the research, this creates flawed results as they would not be accurate. With the optimism test coming from 1994, it is old compared to the time of the research. The test could be outdated and not an accurate way to measure optimism.

Future Research

There has never been research on Generation Z and this relationship. Further research should be completed to find if Generation Z is genetically more optimistic. It is possible these results could change as Generation Z grows older. This research provided a basis for further research to be completed on this generation. It was challenging to determine a reasoning for the results without previous research. In the future, this research should be completed on another group of Generation Z participants in order to compare between multiple studies. Researchers should complete a study on the same group of Generation Z students to see if optimism and BMI change over time. If researchers decide on a self-report of height and weight, these should be verified to determine accurate results. It could also be beneficial to find a new method of measuring optimism. Tests should be within a reasonable date to ensure the measuring is current. The researchers could also see if social media plays a role in optimism and BMI. Generation Z is influenced by social media which can has the possible effects of helping or hindering BMI. This research should also be used to help with further research on Generation Z.

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